"S" is for "Security" secure with the knowledge that this great country is never unprepared for any disaster.

"M" is for "Me," may I never forget any of the great and wonderful traditions, customs or habits handed down to me from my ancestors who struggled and fought to give me this beautiful country with all of its Americanisms.

IRS JOLTS FIRST OFFENDER

HON. ELWOOD HILLIS

OF INDIANA

IN THE HOUSE OF REPRESENTATIVES

Tuesday, March 23, 1971

Mr. HILLIS. Mr. Speaker, I, and I would guess, every Member of Congress would like to have the dangerous drug problem eliminated from our Nation's scene.

But like all offenses, we want fair prosecution and fair sentences.

Therefore I want you to read the following news story from the Frankfort, Ind., Morning Times.

This tells of a Vietnam veteran who admitted that he possessed narcotics, was tried and because of his no prior arrest record was given a suspended jail sentence, but was then fined.

After he paid the fine he then learned that the IRS was assessing him for $14,300. I would like for every Member of Congress to read this news story:

FATHER QUESTIONS SON'S $14,300 "POT" ASSESSMENT

(By John A. Harden)

The Internal Revenue Service has a legal right—but does it have a "moral" right—to expect a first offender to pay $14,300 in excise taxes on marijuana found in his possession?

Harold P. Eldridge of Michigantown answers an emphatic "no" in a case concerning his son Michael, 21. If necessary, the elder Eldridge will "ride a bicycle all the way to Washington" to protest to President Richard M. Nixon.

About three weeks ago, Eldridge wrote to the President, but got an answer instead from the district director of Internal Revenue Service in Indianapolis, since the case concerns a Federal tax matter. "The President didn't even see the letter," Eldridge complained.

Harold, Mike and Mrs. Eldridge brought out some cake and coffee on which to munch while telling of their problems.

July 10, 1970, Michael pleaded guilty to possession of a narcotic drug in Howard Circuit Court. Frankfort police had made the arrest and Mike's case was venued to Howard County.

Harold said that the judge and Clinton County prosecutor at that time, Carol Grafton, agreed that Mike should receive a suspended sentence. His 2–10 year sentence was suspended and Mike was fined a total of $348.

District Director James E. Daly wrote, "Your son had 142.9 ounces of marijuana in his possession at the time of his arrest and did plead guilty to the charge of possession of a narcotic drug and violation of the Indiana Dangerous Drug Act. Since the law clearly prescribes taxing this marijuana at the rate of $100 per ounce or fraction thereof, we had no alternative but to assess $14,300 in Federal excise tax against your son."

Eldridge declared, "Morally, there is no justification for the Revenue Service to expect Mike to pay this."

Mike spent a year in Vietnam and participated in three major operations.

"It was there he learned about the drug which is used freely by the natives," his father said. "Naturally, the soldiers see this open use and many of them aren't acquainted with drugs. I feel if he hadn't been in Vietnam he wouldn't have come in contact with dope. We American taxpayers are all guilty for sending our boys to fight a dirty war and then prosecute them for things they get involved in there."

The family noted Mike had never been in trouble before, and according to court testimony, Mike was holding the drug for a Kokomo boy who was still in the Orient. His "friend" had mailed three packages of marijuana before postal authorities discovered the illegal shipment.

Harold continued, "We, the people, send our boys over there and we shouldn't condemn them for getting involved in something like this. Rather than force any boy to pay, the moral thing for our government to do would be to give the boys a free slate on a first offense. There should be understanding and forgiveness. I feel the law is meant to prosecute people who are a menace to society—the habitual criminals who are pushing dope on our school children, or anyone else, for profit. Mike is not a user and he definitely was not 'pushing' dope."

Harold and five brothers have served in the armed forces and one was killed in the Battle of the Bulge. "We feel the tax imposed on our son and nephew is unjustified," they wrote President Nixon.

After sending three demands for the excise tax payment, the account was placed in a "temporary suspense file" based upon information that Mike is unemployed and has no tangible assets.

Daly's letter continued, "The statutory period for collection of an assessed tax under normal conditions is six years from date of assessment. When your son is again employed, we will expect him to contact our office and make the necessary arrangements for paying the account. We will give him every consideration within the administrative discretion of this office."

Mike completed only nine grades of school, but he was employed in a Frankfort factory upon his honorable discharge from service. When he was arrested, the factory laid him off. Later, after working two weeks, Mike quit.

He has been working at odd jobs. More than 10 Kokomo and Frankfort factories have never replied to his application for work. "Whether its because of his lack of education or his 'criminal record' that is the trouble, I don't know," Harold said. "He prefers outdoor work such as carpentry and roofing."

The Eldridges feel their only recourse is to appeal to the President. "My intention is to still try to contact him even if I have to ride a bicycle to Washington to see him," Harold said. "I don't feel I can afford to hire a lawyer because I am the sole support of a family of seven."

"As one father to another, I ask you to do something about this," Harold wrote to the President.

The Eldridges admit that Michael did wrong, but they feel a first offender with no criminal record should be shown mercy.

How long the matter will remain in the "temporary suspense file," they don't know. For the three payment demands they received, they found the $14,300 was subject to an interest penalty of one per cent per month, or an additional $143 each month.

SENATE—*Wednesday, March 24, 1971*

(Legislative day of Tuesday, March 23, 1971)

The Senate met at 10 a.m., on the expiration of the recess, and was called to order by Hon. JOHN V. TUNNEY, a Senator from the State of California.

The Chaplain, the Reverend Edward L. R. Elson, D.D., offered the following prayer:

May the words of our mouths and the meditations of our hearts be acceptable in Thy sight, O Lord, our strength and our redeemer. Lead us so that Thy will becomes our will. May Thy purposes for man be furthered by our service in this Chamber this day.

Once more we remember before Thee all prisoners of war. Wherever they may be and whatever their lot, keep them close to Thee. Shelter them by Thy grace, heal their diseases, assuage their pain, and keep their faith and hope alive for the better day that is yet ahead. Infuse their captors with compassion and with a new sense of justice. By drawing close to Thee may we be kept close to our fellow citizens who serve and suffer on our behalf.

In the name of the Great Burden Bearer. Amen.

DESIGNATION OF THE ACTING PRESIDENT PRO TEMPORE

The PRESIDING OFFICER. The clerk will read a communication to the Senate from the President pro tempore (Mr. ELLENDER).

The assistant legislative clerk read the following letter:

U.S. SENATE,
PRESIDENT PRO TEMPORE,
Washington, D.C., March 24, 1971.

To the Senate:

Being temporarily absent from the Senate, I appoint Hon. JOHN V. TUNNEY, a Senator from the State of California, to perform the duties of the Chair during my absence.

ALLEN J. ELLENDER,
President pro tempore.

Mr. TUNNEY thereupon took the chair as Acting President pro tempore.

THE JOURNAL

Mr. MANSFIELD. Mr. President, I ask unanimous consent that the Journal of the proceedings of Tuesday, March 23, 1971, be approved.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

COMMITTEE MEETINGS DURING SENATE SESSION

Mr. MANSFIELD. Mr. President, I ask unanimous consent that all committees be authorized to meet during the session of the Senate today.

AUTHENTICATED U.S. GOVERNMENT INFORMATION GPO

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

EXECUTIVE SESSION

Mr. MANSFIELD. Mr. President, I ask unanimous consent that the Senate go into executive session to consider the nomination of Frank Carlucci III on the Executive Calendar.

There being no objection, the Senate proceeded to the consideration of executive business.

The ACTING PRESIDENT pro tempore. The nomination on the Executive Calendar will be stated.

OFFICE OF ECONOMIC OPPORTUNITY

The assistant legislative clerk read the nomination of Frank Charles Carlucci III, of Pennsylvania, to be Director of the Office of Economic Opportunity.

The ACTING PRESIDENT pro tempore. Without objection, the nomination is considered and confirmed.

Mr. MANSFIELD. Mr. President, I ask unanimous consent that the President be immediately notified of the confirmation of this nomination.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

LEGISLATIVE SESSION

Mr. MANSFIELD. Mr. President, I ask unanimous consent that the Senate resume the consideration of legislative business.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

ORDER OF BUSINESS

The ACTING PRESIDENT pro tempore. Under the previous order, the Chair now recognizes the distinguished Senator from South Dakota (Mr. McGOVERN) for not to exceed 15 minutes.

(The remarks of Mr. McGOVERN when he submitted Senate Resolution 82 are printed in the RECORD under Submission of a Resolution.)

TRANSACTION OF ROUTINE MORNING BUSINESS

The ACTING PRESIDENT pro tempore. Under the previous order the Senate will now proceed to the transaction of routine morning business for a period of 15 minutes, with a 3-minute limitation on statements.

COMMUNICATION FROM AN EXECUTIVE DEPARTMENT

The ACTING PRESIDENT pro tempore (Mr. TUNNEY) laid before the Senate the following letter, which was referred as indicated:

REPORT ON DEFICIENCY APPORTIONMENTS TO MEET CERTAIN PAY INCREASES

A letter from the Director, Office of Management and Budget, Executive Office of the President, reporting, pursuant to law, deficiency apportionments to meet certain pay increases (with accompanying papers); to the Committee on Appropriations.

REPORT OF COMMITTEES

The following report of a committee was submitted:

By Mr. TALMADGE, from the Committee on Agriculture and Forestry, with amendments:

S. 789. A bill to amend the tobacco marketing quota provisions of the Agricultural Adjustment Act of 1938, as amended (Rept. No. 92–45).

By Mr. CHURCH, from the Special Committee on Aging:

S. Res. 84. A resolution to authorize the printing of additional copies of the 1970 report entitled "Developments in Aging: 1970."

EXECUTIVE REPORTS OF A COMMITTEE

As in executive session, the following favorable reports of nominations were submitted:

By Mr. LONG, from the Committee on Finance:

Stephen Kurzman, of the District of Columbia, to be an Assistant Secretary of Health, Education, and Welfare; and

Robert O. Beatty, of Idaho, to be an Assistant Secretary of Health, Education, and Welfare.

BILLS AND JOINT RESOLUTIONS INTRODUCED

The following bills and joint resolutions were introduced, read the first time and, by unanimous consent, the second time, and referred as indicated:

By Mr. McGOVERN:

S. 1345. A bill to provide that the use and occupancy of trust land on the Cheyenne River Sioux Reservation in South Dakota pursuant to section V of Public Law 776 (83d Cong.; Stat. 1192) shall have the same force and effect as a trust patent, and for other purposes. Referred to the Committee on Interior and Insular Affairs.

By Mr. TUNNEY (by request):

S. 1346. A bill relating to benefits for employees of the Government of the District of Columbia, and for other purposes;

S. 1347. A bill to amend the District of Columbia Minimum Wage Act to extend minimum wage and overtime compensation protection to additional employees, to raise the minimum wage, to improve standards of overtime compensation protection, to provide improved means of enforcement, and for other purposes; and

S. 1348. A bill to provide for the payment of medical or surgical services or hospital treatment for certain disabled former members of the Metropolitan Police Department, the Fire Department of the District of Columbia, the United States Park Police force, the Executive Protection Service, and the United States Secret Service Division, and for other purposes. Referred to the Committee on the District of Columbia.

By Mr. BIBLE:

S. 1349. A bill to authorize the Atomic Energy Commission to undertake a cooperative program to ascertain the feasibility of using atomic energy to develop the Nation's geothermal energy resources, and for other purposes. Referred to the Joint Committee on Atomic Energy.

By Mr. BENTSEN:

S. 1350. A bill to amend title 10, United States Code, to equalize the retirement pay of members of the uniformed services, of equal rank and years of service, and for other purposes; and

S. 1351. A bill to amend chapter 73 of title 10, United States Code, to establish a Survivor Benefit Plan. Referred to the Committee on Armed Services.

S. 1352. A bill for the relief of Rosa Margarita Pina Gutierrez. Referred to the Committee on the Judiciary.

By Mr. PEARSON:

S. 1353. A bill to amend the Public Health Service Act to assist in alleviating the shortage of health care personnel in rural areas, and for other purposes; and

S. 1354. A bill to amend the Public Health Service Act to provide for a Model State Code for the allied health professions. Referred to the Committee on Labor and Public Welfare.

By Mr. McINTYRE:

S. 1355. A bill to amend the Small Business Act to encourage the development and utilization of new and improved methods of waste disposal and pollution control; to assist small business concerns to effect conversions required to meet Federal or State pollution control standards; and for other purposes. Referred to the Committee on Banking, Housing and Urban Affairs.

By Mr. STEVENS (for himself and Mr. GRAVEL):

S. 1356. A bill to establish the Seward National Recreation Area in the State of Alaska, and for other purposes. Referred to the Committee on Agriculture and Forestry.

By Mr. BURDICK (by request):

S. 1357. A bill to amend the Organic Act of Guam so as to provide four-year terms for members of the Legislature of Guam. Referred to the Committee on Interior and Insular Affairs.

By Mr. McGEE:

S. 1358. A bill for the relief of Sotirios Spanos. Referred to the Committee on the Judiciary.

By Mr. SCOTT:

S. 1359. For the relief of Leonardo Boccella; and

S. 1360. For the relief of Alessandro La Rocca, his wife, Maria Vittoria La Rocca, and their two daughters, Daniela and Gianluca La Rocca. Referred to the Committee on the Judiciary.

By Mr. MONDALE:

S. 1361. A bill for the relief of Yuk Chun Au. Referred to the Committee on the Judiciary.

By Mr. STEVENSON (by request):

S. 1362. A bill to authorize the Commissioner of the District of Columbia to enter into contracts for the payment of the District's equitable portions of the costs of reservoirs on the Potomac River and its tributaries, and for other purposes.

S. 1363. A bill to revise and modernize procedures relating to licensing by the District of Columbia of persons engaged in certain occupations, professions, businesses, trades, and callings, and for other purposes;

S. 1364. A bill to supplement the Motor Vehicle Safety Responsibility Act of the District of Columbia in order to provide for the indemnification of persons sustaining certain losses as a result of the operation of motor vehicles by financially irresponsible persons, and for other purposes;

S. 1365. A bill to establish a revolving fund for the development of housing for low and moderate income persons and families in the District of Columbia, to provide for the disposition of unclaimed property in the District of Columbia, and for other purposes;

S. 1366. A bill to designate the legal public holidays to be observed in the District of Columbia;

S. 1367. A bill to authorize the Commissioner of the District of Columbia to lease airspace above and below freeway rights-of-way within the District of Columbia, and for other purposes;

S. 1368. A bill to amend the District of Columbia Alcoholic Beverage Control Act, and for other purposes;

S. 1369. A bill to amend the District of Columbia Code to increase the jurisdictional amount for the administration of small estates, to increase the family allowance, to provide simplified procedures for the settle-

ment of estates, and to eliminate provisions which discriminate against women in administering estates; and

S. 1370. A bill to amend Section 8 of the Act approved March 4, 1913, (37 Stat. 974) as amended, to standardize procedures for the testing of utility meters; to add a penalty provision in order to enable certification under Section 5(a) of the Natural Gas Pipeline Safety Act of 1968, and to authorize cooperative action with State and Federal regulatory bodies on matters of joint interest. Referred to the Committee on the District of Columbia.

By Mr. BROOKE:

S. 1371. A bill for the relief of Robert Hastings; and

S. 1372. A bill for the relief of Pierre-Michel Fontaine. Referred to the Committee on the Judiciary.

By Mr. KENNEDY (for himself, Mr. FONG, Mr. ANDERSON, Mr. BAYH, Mr. CASE, Mr. GRAVEL, Mr. HART, Mr. HUGHES, Mr. HUMPHREY, Mr. INOUYE, Mr. JAVITS, Mr. MAGNUSON, Mr. PASTORE, Mr. PELL, Mr. PERCY, Mr. RANDOLPH, and Mr. STEVENS):

S. 1373. A bill to revise the Immigration and Nationality Act. Referred to the Committee on the Judiciary.

By Mr. THURMOND:

S. 1374. A bill to exempt from taxation certain property of the Daughters of the American Revolution in the District of Columbia. Referred to the Committee on the District of Columbia.

By Mr. SPONG:

S. 1375. A bill to amend section 304 of the Disaster Relief Act of 1970. Referred to the Committee on Public Works.

By Mr. LONG (for himself, Mr. ANDERSON, Mr. BIBLE, Mr. BURDICK, Mr. BYRD of Virginia, Mr. GRAVEL, Mr. HANSEN, Mr. HOLLINGS, Mr. JORDAN, of Idaho, Mr. ELLENDER, Mr. MCGEE, MR. PASTORE, MR. PEARSON, Mr. RANDOLPH, and Mr. RIBICOFF):

S. 1376. A bill to amend the Social Security Act to add a new title XX thereto which will provide insurance against the costs of catastrophic illness. Referred to the Committee on Finance.

By Mr. MATHIAS:

S. 1377. A bill to reduce pollution which is caused by litter composed of soft drink and beer containers, and to eliminate the threat to the Nation's health, safety, and welfare which is caused by such litter by banning such containers when they are sold in interstate commerce on a no-deposit, no-return basis. Referred to the Committee on Commerce.

By Mr. BAYH:

S. 1378. A bill to provide implementation of the Federal Trade Commission Act, to give increased protection to consumers, and for other purposes. Referred to the Committee on Commerce.

By Mr. BENTSEN:

S.J. Res. 74. A joint resolution to authorize and request the President to proclaim the week of June 20, 1971, through June 26, 1971, as "National Royal Ranger Week." Referred to the Committee on the Judiciary.

By Mr. MONDALE (for himself and Mr. BAYH, Mr. BROOKE, Mr. CASE, Mr. FONG, Mr. HARRIS, Mr. HART, Mr. HUGHES, Mr. HUMPHREY, Mr. JAVITS, Mr. KENNEDY, Mr. MCGEE, Mr. MCGOVERN, Mr. MOSS, Mr. NELSON, Mr. PELL, Mr. RANDOLPH, and Mr. SCHWEIKER):

S.J. Res. 75. A joint resolution to provide for a study and evaluation of the ethical, social, and legal implications of advances in biomedical research and technology. Referred to the Committee on Labor and Public Welfare.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS

By Mr. TUNNEY (by request):

S. 1346. A bill relating to benefits for employees of the government of the District of Columbia, and for other purposes;

S. 1347. A bill to amend the District of Columbia Minimum Wage Act to extend minimum wage and overtime compensation protection to additional employees, to raise the minimum wage, to improve standards of overtime compensation protection, to provide improved means of enforcement, and for other purposes; and

S. 1348. A bill to provide for the payment of medical or surgical services or hospital treatment for certain disabled former members of the Metropolitan Police Department, the Fire Department of the District of Columbia, the U.S. Park Police force, the Executive Protection Service, and the U.S. Secret Service Division, and for other purposes. Referred to the Committee on the District of Columbia.

DISTRICT OF COLUMBIA LEGISLATION

Mr. TUNNEY. Mr. President, as chairman of the Public Health, Education, Welfare, and Safety Subcommittee of the Committee on the District of Columbia, I am today introducing for appropriate reference three bills which have been submitted by the District of Columbia government for consideration by the Congress. This is part of the District's legislative package and as soon as the city has completed submission of its program I intend to announce hearings on the bills within my subcommittee's jurisdiction.

The District of Columbia Personnel Act would make five changes in present law: First, authorize designated District employees to administer oaths of office; second, authorize the set off of annuity payments, or refunds payable from the civil service retirement fund in order to liquidate debts owed to the District or Federal Government; third, authorize the waiver by the District of claims for overpayment of pay; fourth, authorize the District government to provide transportation for District employees working in municipal facilities outside the District of Columbia; and fifth, amend the Hatch Act to remove the exemption for the District of Columbia Recorder of Deeds.

The bill to provide payment of medical or surgical services to certain disabled former members of the Metropolitan Police Department and other departments is to allow the continued payment of such fees as may be required for the continued care of employees who were disabled in the performance of duty and who have retired, because of the incurrance of such disabilities. At the present time such payments are not authorized, although payments are authorized if the individual does not retire.

Finally, the third bill would amend the minimum wage act to extend coverage to domestic workers, would raise the minimum wage to $2 per hour for the year of enactment and to $2.25 the following year, and would require overtime compensation at one and one-half times the employee's regular rate for all hours worked over 8 in any day. The act would also make certain technical changes regarding payment of lost wages and provide for injunctive relief in certain instances.

By Mr. BIBLE:

S. 1349. A bill to authorize the Atomic Energy Commission to undertake a cooperative program to ascertain the feasibility of using atomic energy to develop the Nation's geothermal energy resources, and for other purposes. Referred to the Joint Committee on Atomic Energy.

THE NUCLEAR GEOTHERMAL POWER RESEARCH AND DEMONSTRATION PROJECTS ACT OF 1971

Mr. BIBLE. Mr. President, I introduce for appropriate reference a bill to authorize the Atomic Energy Commission to undertake a cooperative program to ascertain the feasibility of using atomic energy to help develop the Nation's geothermal energy resources for the production of electricity.

The bill I am introducing today is another in a series of bills I have sponsored over the years in an effort to encourage the development and utilization of the geothermal resources that lie beneath much of the land area in the Western United States. The Department of the Interior estimates that there are some 1,350,000 acres of known geothermal resources on the public lands alone in our Western States. And the Senate will recall that—after nearly a decade of effort on the part of myself and a number of other Senators—the 91st Congress enacted and the President approved Public Law 91–581, the "Geothermal Steam Act of 1970" authorizing the leasing of public domain lands for geothermal development.

Geothermal power is literally earth-heat-energy. Large areas in our Western States are regions of relatively recent volcanic activity, and are known to be marked by numerous deposits of earth heat sufficiently near the surface to be exploited as a potentially enormous energy source. The hearings on Public Law 91–581 and the extensive record developed in connection with earlier geothermal bills indicate that the Nation's geothermal resources hold great promise as an energy source for the economical production of electric power. And the resource is particularly attractive in this time of growing consciousness of environmental hazards, for according to the available evidence, geothermal power production is relatively pollution-free compared to power generation through the use of fossil fuels.

The harnessing of geothermal steam energy for the production of electric power is not a new concept. Private development efforts have been underway in the United States for a number of years and can be expected to increase because of the encouragement provided by last year's Geothermal Steam Act.

The one significant development of geothermal power in the United States is located at The Geysers in Sonoma

County, Calif., some 90 miles north of San Francisco. There, geothermal steam wells now supply energy to generating facilities of the Pacific Gas & Electric Co. and produce some 84,000 kilowatts of electric power. And P.G. & E. expects to have over 600 megawatts of generating capability operating on natural steam energy by the end of 1975.

A great deal of exploratory work has been done in Nevada, and there is a growing interest in the geothermal potential of Alaska, Colorado, Idaho, Montana, New Mexico, Oregon, Utah, Washington, and other Western States.

Elsewhere, Italy, New Zealand, Mexico, Japan, the Soviet Union, and Iceland have all successfully developed geothermal energy resources, and are concentrating increased attention on the subject. Indeed, geothermal power is assuming such significance as a feasible, available source of economical electric energy that a United Nations Symposium on the Development and Utilization of Geothermal Resources was held at Pisa, Italy, in September 1970, and I understand the U.N. has sent technical assistance missions to some 19 nations to assess their geothermal power potentials.

Mr. President, I think there is no question that geothermal power stands out as a potentially invaluable natural resource—a sleeping giant among the Nation's energy reserves.

Geothermal steam—that, is, naturally occurring subterranian hot water deposits—has been the principal focal point of interest over the years. The electric power developments at The Geysers in California, at Lardarello in Italy, in New Zealand, Mexico, Japan, the Soviet Union, and Iceland all rely on naturally occurring geothermal steam deposits.

Experience indicates that whenever a favorable combination of recent magmatic intrusion and favorable groundwater conditions occurs to create the necessary steam conditions, it is usually economic to build a generating plant, and such plants are usually economically competitive.

Naturally occurring geothermal steam deposits must be exploited to the fullest extent possible.

In addition to naturally occurring geothermal steam sites, the record on last year's Geothermal Steam Act shows that large areas of a number of our Western States, including California, Idaho, Montana, Nevada, Oregon, Utah, and Washington, are marked by what are termed "dry geothermal formation." That is, extensive "hot rock" structures deep beneath the surface of the earth, but unrelated to natural steam deposits.

If a method can be found for recovering the energy in these dry geothermal formations—without having to rely on the comparatively rare incidence of naturally occurring steam deposits—the horizons and economic payoff of the Nation's geothermal energy resources would be vastly expanded. For example, according to one estimate I have seen, the total energy in 1 cubic mile of hot rock is equivalent to that of a major oil field—300 million barrels of oil worth $600 million. The energy available in only one small known geothermal area in the far Northwest has been estimated as roughly equivalent to that of the Alaskan North Slope oil pool.

Mr. President, such estimates are staggering. They come from serious scientific students of our national geothermal energy potential. They envisage the application of atomic energy for a full exploitation of our geothermal resources. The concept involves penetrating hot rock geothermal formations deep below the earth's surface, and utilizing the rock crushing power of a nuclear device to produce a large cavity filled with broken rock from which the sensible heat can be removed. The heat removal would be accomplished by drilling a second hole into the bottom of the cavity and adding water. The resulting high pressure, high temperature superheated steam is then removed from the top of the cavity, used to power a turbine generator, condensed, and returned to the geothermal cavity. Such detonations would occur deep beneath the earth's surface to obviate venting, and according to advocates of the procedure, most of the fission products would be frozen in the molten rock of the cavity wall. The closed cycle nature of the process holds promise of full environmental protection, and a very clean method of power production.

If this approach is successful, many limitations that beset current geothermal steam plants would be overcome. It would no longer be necessary to depend on naturally occurring geothermal steam deposits alone. As I have said, the horizons of the resource would be vastly expanded.

Mr. President, I need not dwell on the energy crisis that confronts the Nation. The "brownouts," the periods of reduced power, the periodic pleas to the public to limit power consumption during certian times of the year, demonstrate more forcefully than anything I can say that we face a serious energy problem. A national effort to augment existing energy sources and develop new energy sources is imperative.

The full array of our Nation's technological know-how must be brought to bear on the development of new energy sources.

And I can think of no more fitting move than to assign the Atomic Energy Commission a further role in pursuing another vitally needed peaceful use of atomic energy.

The purpose of the "Nuclear Geothermal Power Research and Demonstration Projects Act" I am introducing today is to provide the stimulus of a congressional directive, coupled with necessary authorizations, for a program involving the use of atomic energy to develop geothermal energy resources for the production of electricity.

The bill directs the Atomic Energy Commission to enter into cooperative arrangements for this purpose with utility organizations and energy companies having an interest in exploration, and recovery of energy resources as well as other parties.

Under the bill, utility organizations, in partnership with such energy companies, would be invited to make proposals to the Atomic Energy Commission for cooperative programs involving the use of nuclear devices to develop geothermal resources for the production of electricity. Each proposal to the Commission would be accompanied by a preliminary feasibility study identifying alternate sites, evaluating environmental considerations, projecting recoverable resources, and covering other factors that may be necessary for an evaluation of such proposals. Each proposal would outline any arrangements contemplated between nongovernmental parties. Typically, a utility and an energy company might agree to execute a contract, the former obligating itself to construct necessary electric generating and transmission facilities and the latter committing itself to perform necessary exploration work and construct resource recovery facilities. The arrangements between the nongovernmental parties would also include agreements for the purchase and sale of steam produced in the project. Each proposal would also identify the amount and type of Government assistance required in the project.

The Government would be authorized to provide without charge site investigation, nuclear explosive detonation services, and associated health and safety and environmental services; expend funds for research and development in support of the program authorized by this section; and for necessary studies. Twenty-five million dollars would be authorized for the project, and would constitute the full extent of Government assistance available for this program. Major aspects of any project would be financed by the nongovernmental parties, including demonstration site acquisition, construction of generating and associated transmission facilities, and such other facilities as may be required for recovery of the geothermal resource.

Arrangements concluded under this authority would, typically, provide for a multiphase program involving:

First. Detailed studies of the project;

Second. Exploratory drilling to verify the extent and recoverability of the geothermal resource;

Third. Detonation of nuclear explosive devices and associated evaluations and construction of resource recovery and steam test facility and conduct of a product development program;

Fourth. Construction and demonstrational operation of electric generating and transmission facilities.

In keeping with the procedures that have been applicable to Commission programs over the years—particularly the cooperative power reactor demonstration program—the Joint Committee on Atomic Energy would have to approve any project proposed under this authorization.

Pursuant tc section 5(f) of the bill—and to assure full attention to environmental problems—the evaluation of all proposals and the conduct of any project would have to be coordinated with the Secretary of the Interior, the Chairman of the Federal Power Commission, and the Administrator of the Environmental Protection Agency. Overall supervision of the program from the evaluation of proposals through the actual conduct of a project would be vested in the Chairman of the Atomic Energy Commission.

Mr. President, geothermal power is a challenging frontier. Our exploration for

new energy resources requires that we bend every effort toward its early development. The bill I introduce today proposes a major step in that direction, and I commend it to the Senate for prompt consideration and action.

By Mr. BENTSEN:

S. 1350. A bill to amend title 10, United States Code, to equalize the retirement pay of members of the uniformed services, of equal rank and years of service, and for other purposes. Referred to the Committee on Armed Services.

EQUALIZATION OF RETIREMENT PAY OF MEMBERS OF THE UNIFORMED SERVICES

Mr. BENTSEN. Mr. President, the retired pay for those who retired prior to June 1958 has never been "recomputed" or equalized to the retired pay of those who retired after 1958.

Retirees who entered upon a military career under a retirement system which guaranteed them the same retired pay as other retirees of equal grade and years of service, now draw nine different rates depending upon the date on which they retired from active service. As pay raises are granted—according to the cost of living index—the disparity gap grows wider against the older group of retirees.

An example of this is the major—04—who retired before June 1, 1958; he receives a retirement pay of $501 per month compared to a recently retired major—04—who receives $708 monthly. The recent retiree is still young enough to work after becoming retired, virtually earning still more income.

Gentlemen, this is a serious situation for our older military retirees. The time has come to close this disparity gap with a more equitable retirement income for those who served in the uniformed services.

The bill I introduce today, the "Uniformed Services Retirement Equalization Act," similar to H.R. 3342 introduced in the House by my Texas colleague, Congressman OLIN TEAGUE. This bill would equalize the retirement pay of members of the uniformed services of equal rank and years of service, and for other purposes. We must keep faith with those loyal, gallant and unselfish Americans who did their duty and faithfully served their country. Congress has a moral obligation to give this measure its fullest consideration and support.

By Mr. BENTSEN:

S. 1351. A bill to amend chapter 73 of title 10, United States Code, to establish a survivor benefit plan. Referred to the Committee on Armed Services.

SURVIVOR BENEFIT PLAN FOR MILITARY RETIREES

Mr. BENTSEN. Mr. President, today I introduce a bill that would establish a comprehensive and more equitable benefit plan for military retirees. This bill is identical to H.R. 984 previously introduced in the House by Congressman OTIS G. PIKE of New York. The current retired servicemen's family protection plan—RSFPP—is a most inequitable system that sets premiums under a complex formula based on age difference, grade of rank. Not only that, but military participants pay more under this plan than civilian employees under the civil service program.

An example of how the present objectionable plan works can readily be seen in the situation of an E–6 master sergeant, age 39, whose retirement pay is $302 monthly. From this sum, he is deducted $23.06 for the survivor plan for the rest of his life. If he dies and leaves a surviving widow, she will receive only $151.28 for the remainder of her life and there is no provision for a cost of living adjustment to compensate for the burden of inflation. It is unrealistic to think that any survivor could exist on such meager income.

Most military personnel must make an election in this retirement program prior to their 19th year of service. Further, the RSFPP is difficult to explain to prospective retirees since the plan is based on a complex actuarial cost table.

In view of the inadequacies of the present plan, there is a clear need for a more equitable survivor benefit program for our military retirees.

I point out that under my proposal, there would be no immediate increase in Federal budgetary requirements for the permanent survivor benefit program, for the retired pay deductions will exceed the level of benefit payments for approximately the first 20 years of the program.

Mr. President, I believe it is the moral obligation of Congress to attend to the needs of our military retirees, who have faithfully served in the Armed Forces of our country, and especially should we make adequate provisions for the future well-being of their surviving widows and children.

By Mr. PEARSON:

S. 1353. A bill to amend the Public Health Service Act to assist in alleviating the shortage of health-care personnel in rural areas, and for other purposes. Referred to the Committee on Labor and Public Welfare.

THE RURAL HEALTH SERVICES ACT

Mr. PEARSON. Mr. President, I introduce for appropriate reference a bill to assist in alleviating the shortage of health-care personnel in rural areas and to generally strengthen the delivery of health-care services to rural Americans.

Mr. President, this country faces a growing health-care crisis. Nowhere is that problem more pressing and more complex than in our rural areas.

By almost every indicator, health-care problems are greater in rural areas than in metropolitan areas. There are a number of reasons for this. First, the incidence of poverty is greater among rural people. And poverty and poor health have always gone hand in hand. Because they have less to spend, low-income families spend less on medical services than do middle- and upper-income families.

Second, the rural population has a much higher percentage of older aged citizens. Health-care problems are, of course, of great magnitude among our senior citizens and this is magnified by the fact that most of them live on limited income.

Third, accident rates among rural farm workers are very high compared to other types of occupations.

But the health-care problems of rural areas go far beyond the factors of poverty, age, and accident rate. If these three factors could somehow be eliminated we would still have a massive health-care problem. For it is a basic fact, Mr. President, that health-care personnel and facilities are less accessible in rural areas than in metropolitan areas.

The deficiencies in rural health care services have never been adequately cataloged. And because of differences in definitions, particularly in regards to what constitutes rural, the data produced by various studies are not always precisely comparable. However, the overall picture which emerges is all too clear:

In 1967 the President's National Advisory Commission on Rural Poverty reported that although about 30 percent of our population still lives in rural areas, about 12 percent of our physicians, 18 percent of our nurses, 14 percent of our pharmacists, 8 percent of our pediatricians, and less than 4 percent of our psychiatrists are located in our local areas.

Dr. Bond L. Bible, executive secretary of the Rural Health Council of the American Medical Association in an address before the Rural Sociological Society in 1969 said that 85.6 percent of the physicians in private practice are located in metropolitan areas, and only 14.4 percent in nonmetropolitan areas. The 1970 census shows that 31.3 percent of our people live in nonmetropolitan areas.

A 1965 study shows that over 90 percent of the specialists in internal medicine, obstetrics and gynecology, pediatrics and psychiatry were located in urban areas.

The following table shows a more detailed breakdown in the ratio of health personnel to population. The data in this table are based on a 1962 study.

THE RATIO OF PERSONS IN HEALTH OCCUPATIONS TO POPULATION, 1962

Item	County group [1]				
	Greater metropolitan (1)	Lesser metropolitan (2)	Adjacent to metropolitan (3)	Isolated semirural (4)	Isolated rural (5)
Health personnel per 100,000 population:					
Dentists	71.0	52.0	38.7	40.6	27.4
Nurses, total	492.7	509.3	388.3	350.6	195.7
Active	327.5	339.6	254.2	242.8	125.9
Pharmacists	81.2	65.2	51.3	56.0	45.3
Physicians, total	205.3	153.0	91.5	100.4	59.1

[1] Group 1: Greater metropolitan—counties with 1,000,000 or more inhabitants. Group 2: Lesser metropolitan—counties with 50,000 to 1,000,000 inhabitants. Group 3: Adjacent—counties contiguous to metropolitan areas. Population in such counties ranges from 500 to 508,500 inhabitants. Group 4: Isolated semirural—counties containing at least 1 township with 2,500 or more inhabitants. Group 5: Isolated rural—counties not included in the above 4 groups.

Aggrevating the general scarcity of health personnel is the fact that rural people often must travel considerable distances in order to utilize the services that are available. This problem is further accentuated by the general inadequacies of emergency services such as transportation and specialized treatment in rural areas. This undoubtedly contributes to the very high accident fatality rates in rural areas.

But these various figures represent not much more than the tip of the iceberg. Present trends indicate that things will get much worse unless major corrective actions are taken.

For example, a disproportionately high percentage of our rural physicians, most of whom are general practitioners, are over 50 years of age. As these physicians retire the very small rural communities are finding it difficult, if not impossible, to secure replacements. Part of this relates to the reluctance of young physicians to practice in isolated areas, but it also relates to the fact that our medical schools are turning out fewer and fewer general practitioners. Ninety percent of our medical school graduates now specialize.

Thus the special characteristics of the rural population and the lack of adequate medical personnel and facilities to serve them result in a disturbing picture of health conditions in rural areas:

About one-sixth of the population in rural areas have chronic health conditions which limit activity, compared to about one-tenth in large metropolitan areas. The rate of activity-limiting illnesses is particularly high among farmers.

Farm males lost 18.1 days per person per year from all conditions—as reported in a 1964 study. Rural nonfarm males 15.3 compared with 13.8 for metropolitan males.

Rural maternal mortality rate in 1964 was nearly one-fourth higher than the national average.

The infant mortality rate is highest in the most rural and poverty stricken areas.

Accident fatality rates are much higher in rural than in urban areas. For example, a California study has shown that people injured in auto accidents in rural areas are almost four times as likely to die of their injuries as those injured in urban. In 1966 there were 1,450 more farm residents killed by accidents than were lost in 5 years of battle in Vietnam from 1961 to 1966.

These raw figures alone tell a depressing story, but they tell only part of the story. Thousands of rural communities across the country today are fighting for their very survival. The availability of health care services is a vital component of a community. Once the services are no longer available, the life of a community is seriously threatened. The absence of health services encourages greater outmigration and certainly makes it virtually impossible for that community to attract new business and industry. Thus there is a close connection between health care and economic vitality and the ability of a community to survive and grow.

Therefore, Mr. President, the improvement of health-care services is a vital and necessary part of our rural community development efforts.

DESCRIPTION

Mr. President, the bill I introduce today seeks to achieve two basic objectives. First, is to increase the number of physicians and allied health personnel serving rural areas. The second objective is to improve and strengthen the delivery of health services to rural residents.

First, to encourage more physicians to locate in rural areas, the Public Health Services Act would be amended to provide that the loan forgiveness rate for students locating in rural areas would be increased from 15 to 33⅓ percent per year, with a total forgiveness of the student loan for those remaining in the rural area for at least 3 years. Also, if the student himself is from a rural area he would be eligible for an annual loan of $3,000 rather than the present $2,500.

Second, the bill also provides a loan forgiveness for allied health personnel. The forgiveness rate here being 25 percent per year, with a total forgiveness for individuals remaining in the rural area for 4 years.

Third, because surveys have shown that medical students from rural areas are much more likely than their urban-reared colleagues to establish practices in rural areas, the bill would establish a program of grants and contracts to encourage state and local educational agencies and other public nonprofit institutions and organizations to institute programs aimed at encouraging more rural youth to pursue careers in medical and allied health areas. In addition to this general promotional program the bill would provide a special grants program to educational institutions enrolling students from rural areas. This would be a per capita grant program with the size of the grants depending upon the nature of the educational program. In no case, could any institution qualify more than 25 percent of its student body under this program.

This program would also have the effect of increasing the total number of physicians and allied personnel.

To improve the delivery of health care services in rural areas, the bill proposes the following:

First, it would establish a demonstration program to provide better linkage between health personnel in rural areas and those in larger urban centers. Given modern communications and monitoring systems, we can and should be able to develop the organizational and technological systems whereby physicians and allied health personnel in rural areas can have regular, systematic access to the diagnostic and consultative services of major medical centers. With the proper use of modern communications and technology physical distance should no longer be a barrier to obtaining the services of specialized medical experts.

An effective program of linking smaller communities to the services of larger urban medical centers would certainly help to improve the quality of health care to rural people without the prohibitively costly duplication of facilities.

A regularized system of communication and cooperation between rural area health personnel and the larger metropolitan medical centers might also have the advantage of encouraging more health care personnel to locate in rural areas. Surveys have shown that physicians and allied health personnel consider the isolation from their peers and the lack of opportunity for professional growth to be one of the disadvantages of establishing a practice in a small isolated community. The program proposed by this bill would thus help overcome one of the factors which now discourages physicians locating in isolated rural communities.

Second, the bill would establish a demonstration program for the development and use of part-time medical clinics and mobile diagnostic units in the more isolated rural areas. In a number of communities there simply are too few people to support full-time health-care services, but surely we can do a better job of bringing medical services to these people. Mobile units and part-time medical clinics have great potential, but, to date, far too little has been done to develop this technique of bringing high quality medical services to people living in smaller and more isolated areas.

Third, the bill would also call for a demonstration program in emergency health transportation and emergency care. The inadequacy of emergency facilities in rural areas is especially critical because of the higher accident rate among farmers and because of the greater distances that must be traveled. The use of helicopters, centrally dispatched road vehicles, deployment of emergency health personnel, and other techniques can, if properly designed and carried out, do a great deal to provide improved emergency treatment to rural communites.

Finally, Mr. President, the bill provides for grants to the States to carry out special surveys of rural health needs and to develop plans for meeting such needs. We need a more detailed inventory of rural health needs and we need a much more comprehensive rural health planning effort.

And in developing these plans, the States should treat health care as a fundamental component of the rural community development effort. They should take into account the growing national commitment to the objective of rural development and balanced national growth. Too often in the past, the planners have assumed that rural, nonmetropolitan population would continue to decline and thus long range projections were adjusted accordingly. But the alteration of present population distribution trends to achieve a better rural-urban balance has now become an established national goal and this must be taken into account by State and Federal health planners.

Mr. President, a special note about allied health personnel. The more effective and extensive use of allied health personnel—physician assistants, paramedical, and other health technicians—is absolutely necessary to the overall improvement of health care in this Nation. If properly used, these personnel can

make an enormous contribution. Allied health personnel can be particularly useful in rural areas. Physician assistants could be used to relieve the overworked rural general practitioners of many tasks which do not require the direct personal attention of an M.D. Physician assistants, if properly supervised and linked to medical centers, might also be able to function effectively in independent practice in the very isolated areas of rural America.

This bill gives particular attention to the allied health personnel field. The allied health professions are included in all the assistance programs provided in the bill. Also, it would be expected that the demonstration program authorized by this bill would be used, in part, to demonstrate the contribution that allied health personnel can make in rural areas.

In my study of the general subject of allied health it became apparent that there was need for the Secretary of Health, Education, and Welfare to draw up a model code which the State legislatures could use as a guide in drafting legislation covering the licensure and certification of persons engaged in the allied health professions. Therefore, I am introducing today a separate bill directing the Secretary to draft such a model code. This should help facilitate the development of the allied health professions in general and because allied health personnel can make an important contribution to rural health care I consider this bill to be complementary to the Rural Health Services Act. However, the model code proposal has general applicability and should be considered separately.

Mr. President, I ask unanimous consent that the Rural Health Services Act be printed in the RECORD at this point.

There being no objection, the bill was ordered to be printed in the RECORD, as follows:

S. 1353

A bill to amend the Public Health Service Act to assist in alleviating the shortage of health care personnel in rural areas, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

This Act may be cited as the "Rural Health Service Act".

STUDENT LOANS

SEC. 2. (a) Section 741(a) of the Public Health Service Act is amended—

(1) in the first sentence thereof, by striking out "Loans" and inserting in lieu thereof "Except as otherwise provided in the succeeding sentence, loans"; and

(2) by inserting after the first sentence thereof the following new sentence: "In the case of any student who is from a rural area and who indicates an intention (upon completion of his professional education) to practice his profession in a rural area, such loans may not exceed $3,000 for any such student for any such year."

(b) The second sentence of section 741 (f) of such Act is amended—

(1) by striking out "15 per centum" and inserting in lieu thereof "33⅓ per centum".

(2) by striking out "characterized by low family income"; and

(3) by striking out "an amount equal to an additional 50 per centum of the total amount of such loans plus interest may be canceled" and inserting in lieu thereof "an amount equal to the total amount of such loans plus interest may be canceled".

(c)(1) Effective in the case of fiscal years ending after June 30, 1971, the first sentence of section 742(a) of such Act is amended to read as follows: "There is authorized to be appropriated to the Secretary of Health, Education, and Welfare such sums as may be necessary to carry out this part (other than section 744).

(2) The third sentence of section 742(a) of such Act is amended—

(A) by striking out "1972" and inserting in lieu thereof "1978"; and

(B) by striking out "1971" and inserting in lieu thereof "1977".

(d) Section 794D (b) (C) of the Public Health Service Act is amended by—

(1) striking out "with an individual practitioner of medicine or dentistry";

(2) inserting "(i)" after "except that"; and

(3) inserting "(other than such a hospital, facility or agency which is located in a rural area)" after "health agency"; and

(4) inserting immediately before the semicolon at the end thereof the following: "(ii) such rate shall be 25 per centum for each complete year of service in such profession in a rural area, which is determined, in accordance with regulations of the Secretary, to have a substantial shortage of persons rendering service in such profession, and for purposes of any cancellation at such higher rate, an amount equal to the total amount of such loans plus interest may be cancelled".

DEMONSTRATION PROJECTS FOR HEALTH CARE IN RURAL AREAS

SEC. 3. Section 304 of the Public Health Service Act is amended by adding at the end thereof the following new subsection:

"(d) (1) There are authorized to be appropriated such sums as are necessary for grants and contracts for special projects under this subsection.

"(2) The Secretary is authorized, from sums available therefor from appropriations made under this section to make grants to public or nonprofit private agencies, organizations, and institutions, and to enter into contracts with individuals, agencies, organizations, and institutions, for special projects related to the development of innovative methods of expanding and improving the delivery of health care in rural areas, including (but not limited to)—

"(A) projects designed to provide physicians and allied health personnel access to diagnostic and consulting services of major medical centers through expanded use of modern communications and monitoring systems between rural areas and such medical centers;

"(B) projects for the establishment of medical clinics in rural areas to be operated on a full- or part-time basis to provide greater health care services to area residents;

"(C) projects for utilization of mobile diagnostic units and training of personnel; and

"(D) projects for expanded use of emergency health transportation and emergency care through the use of helicopters and radio dispatched road vehicles.".

SURVEY OF RURAL HEALTH NEEDS

SEC. 4. Section 314 of the Public Health Service Act is amended by redesignating subsection "(g)" as subsection "(h)" and inserting the following new subsection:

"GRANT FOR SURVEY OF RURAL HEALTH NEEDS

"(g)(1) The Secretary is authorized to make grants to State health planning agencies which have been designated pursuant to section 314(a), for the purpose of enabling such agencies to conduct special surveys of rural health needs in their States and to develop plans for the meeting of such needs.

"(2) Any such survey shall be designed to determine the various types of health personnel required to fulfill present and future needs of the rural areas in such States; and, in determining such needs for any rural area, there shall be taken into account the housing, income, transportation, communication, sanitation, and other relevant characteristics of such area; and

"(3) For the purposes of carrying out this subsection there are authorized to be appropriated $——."

TALENT UTILIZATION

SEC. 5. Title VII of the Public Health Service Act is amended by adding at the end thereof the following new part:

"PART H—GRANTS AND CONTRACTS TO ENCOURAGE APPROPRIATE INDIVIDUALS FROM RURAL AREAS TO ENTER THE HEALTH PROFESSIONS

"SEC. 799H. (a) To assist in meeting the needs of rural areas for additional professional personnel in the health professions (as defined in subsection (b)) the Secretary is authorized to make grants to State or local educational agencies or other public or nonprofit private agencies, institutions, and organizations, or enter into contracts (without regard to section 3708 of the Revised Statutes (41 U.S.C. (5))) for the purpose of—

"(1) identifying individuals from rural areas with a potential for education or training in the health professions, who indicate an intention (upon completion of their education or training in a health profession) of practicing such profession in a rural area, and encouraging and assisting them (A) to enroll in a school of medicine, dentistry, osteopathy, pharmacy, optometry, podiatry, veterinary medicine, or public health which is accredited as provided in section 721 (b)(1)(B); or (B) if they are not qualified to enroll in such a school, to undertake such postsecondary education or training as may be required to qualify them to enroll in such a school;

"(2) publicizing existing sources of financial aid available to persons enrolled in any such school or who are undertaking training necessary to qualify them to enroll in any such school; or

"(3) establishing such programs as the Secretary determines will enhance and facilitate the enrollment, pursuit, and completion of study by individuals referred to in clause (1) in schools referred to in clause (1)(A).

"(b) For purposes of this part, the term 'professional in the health professions' refers to any of the following:

"(1) doctors of medicine;

"(2) doctors of dentistry or persons holding an equivalent degree;

"(3) doctors of osteopathy;

"(4) doctors of pharmacy or bachelors of science in pharmacy;

"(5) doctors of optometry or persons holding an equivalent degree;

"(6) doctors of podiatry or doctors of surgical chiropody;

"(7) doctors of veterinary medicine or persons holding an equivalent degree; or

"(8) graduates of schools of public health.

"(c) For purposes of carrying out the provisions of this part, there is authorized to be appropriated such sums as are necessary.

GRANTS FOR ENROLLING STUDENTS UNDER RURAL INCENTIVE PROGRAM

SEC. 6. Part B of title III of the Public Health Service Act is amended by adding at the end thereof the following new section:

"GRANTS FOR ENROLLING STUDENTS UNDER THE RURAL INCENTIVE PROGRAM

"SEC. 318. (a) The Secretary is authorized to make grants to schools of the health professions (as defined in subsection (c)(1)) and to schools of the allied health professions (as defined in subsection (c)(2)) to assist such schools in meeting expenses incurred for staffing and operation (but not including expenses incurred for construction).

"(b)(1) The amount of any grant under

this section for any school for any school year shall be equal—

"(A) in case such school is a school of the health professions, to whichever of the following is the lesser:

"(i) the amount produced by multiplying the number of students of such school for such year by the school of health professions amount (as prescribed under paragraph (2)); or

"(ii) the amount produced by multiplying a number, which is equal to 25 per centum of the total number of students of such school for such year, by the school of health professions amount (as so prescribed); and

"(B) in case such school is a school of the allied health professions, to whichever of the following is the lesser:

"(i) the amount produced by multiplying the number of students of such school for such year by the school of allied health professions amount (as prescribed under paragraph (2)); or

"(ii) the amount produced by multiplying a number, which is equal to 25 per centum of the total number of students of such school for such year, by the school of allied health professions amount (as so prescribed).

"(2)(A) The Secretary shall, after taking into consideration the number of schools eligible for grants under this section, the financial needs of such schools, and the amount of funds available for grants under this section, establish, from time to time, a dollar amount which shall be the school of health professions amount and a dollar amount which shall be the school of allied health professions amount.

"(B) The dollar amount established, for any period, by the Secretary as the school of health professions amount shall be greater than (but not more than 150 per centum of) the dollar amount established by him, for such period, as the school of allied health professions amount.

"(c)(1) The term 'school of the health professions' means a school of medicine, dentistry, osteopathy, pharmacy, optometry, podiatry, veterinary medicine, or public health which is accredited as provided in section 721(b)(1)(B).

"(2) The term 'school of the allied health professions' means a public or nonprofit private educational institution (which meets such standards as may be prescribed by the Secretary) with an established program for training or retraining of personnel in the allied health professions.

"(d) For the purpose of carrying out the provisions of this section, there are authorized to be appropriated such sums as may be necessary."

By Mr. PEARSON:

S. 1354. A bill to amend the Public Health Service Act to provide for a model State code for the allied health professions. Referred to the Committee on Labor and Public Welfare.

A MODEL STATE CODE FOR THE ALLIED HEALTH PROFESSIONS

Mr. PEARSON. Mr. President, I introduce for appropriate reference a bill to provide for the establishment of a model State code for the allied health professions.

Mr. President, allied health personnel—physician assistants, corpsmen, and medics, and other health technicians—have an extremely important role to play in the delivery of health care. Indeed, we are only beginning to recognize the enormous potential of their contribution.

However, there is a great deal of uncertainty and confusion as to the proper educational and practicing standards.

Therefore, Mr. President, it would be extremely useful, I believe, for the Secretary of Health, Education, and Welfare to draw up, after proper study and consultation with representatives of the various medical specialties and disciplines, a model State code for the allied health professions. This code could be used by the State legislatures in drafting legislation covering the licensure and certification of persons engaged in the allied health professions.

Such matters as education requirements, experience as a substitute for education, specifications of training courses, duties which may be performed by direction of a physician, duties which could be performed without prior authorization, the liability of such persons and other problems of this type could be addressed by State model code.

The medical profession has already defined the education and duties for a number of occupations in the allied health personnel field, and attention is consistently being given to the need for updating and revision. A study by HEW in cooperation with the appropriate professional groups would be extremely useful in standardizing these career fields, in order to permit maximum use of such personnel in every State and also as such personnel would move from State to State.

Mr. President, I ask unanimous consent that this bill to establish a model State code be printed in the RECORD at this point.

There being no objection, the bill was ordered to be printed in the RECORD, as follows:

S. 1354

A bill to amend the Public Health Service Act to provide for a Model State Code for the allied health profession

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That part G of title VII of the Public Health Service Act is amended by adding after section 799A, the following new section:

"MODEL STATE CODE

"SEC. 799B. (a) In order—

"(1) to expand the role of the allied health professions in meeting the health care needs of the Nation; and

"(2) more effectively to utilize the services of individuals engaged in such professions; the Secretary shall (at the earliest practicable date after the filing of the licensure report referred to in section 799A) prepare, distribute to States and other interested persons, and recommend for adoption by the States, a model code on licensure and certification of persons engaged in the allied health professions.

"(b)(1) Such model code shall—

"(A) define the various occupations and specialties in the allied health professions;

"(B) set forth the educational and other qualifications required for licensure or certification in each of such occupations and specialties;

"(C) describe the duties and responsibilities of each of such occupations and specialties and specify the type of supervision (if any) which is required in the performance of such duties and responsibilities.

"(2) The Secretary shall, from time to time, make such revisions in and additions to such code as may be necessary or appropriate to take account of developments which have taken place in the field of health care (including the development of new occupations and specialties in the allied health professions).

"(c) In the preparation of such code and in the preparation of any revision thereof or addition thereto, the Secretary shall consult with Governmental and other agencies having responsibilities with respect to the licensure or certification of individuals engaged in the allied health professions, and with such other Governmental and other agencies, professional organizations, and other persons, as may be appropriate."

By Mr. STEVENS (for himself and Mr. GRAVEL):

S. 1356. A bill to establish the Seward National Recreation Area in the State of Alaska, and for other purposes. Referred to the Committee on Agriculture and Forestry.

Mr. STEVENS. Mr. President, I am pleased to introduce today for myself and Senator GRAVEL a bill to establish the Seward National Recreation Area. This recreation area would include spectacular forests, glaciers, lakes, rivers, wildlife, and other resources in the Chugach National Forest and nearby lands on the Kenai Peninsula in Alaska. The area would contain approximately 1.4 million acres and would be administered by the Secretary of Agriculture as a part of the Chugach National Forest.

Rich in history, spectacularly beautiful, the Seward National Recreation Area contains a wealth of recreation resources and opportunities. It lies about an hour away from Anchorage, which is Alaska's most populous city and the air cross roads of the world.

The story of civilization within the proposed recreation area began in the late 1700's. The fur of the sea otter attracted Siberian fur hunters and Russian traders who enlisted as hunters the original inhabitants of the region—the Kenaitze Indians. In the 1850's gold was first discovered, and in 1888 the town of Hope welcomed a discovery at Resurrection Creek which started a human stampede in search of the precious metal.

Wildlife is a main attraction of the area. Moose wander near the main roads at certain times of the year, and Doll sheep and mountain goat can be seen on the steep mountain slopes. There are black bear, brown bear, and abundant porcupines and grouse. Hunting is good and fishing very popular, particularly when the salmon are running.

Most of the recreation area is rugged mountainous terrain with a maximum elevation of around 6,000 feet. The combination of mountains, lakes, streams, glaciers, and a variety of vegetative cover produce a striking and varied landscape.

Ice fields and glaciers are prevalent. The recreation area includes one of the largest ice deposits in North America, the Harding Ice Field. It contains one of the major established glacial attractions in Alaska—the Portage Glacier. This outstanding geological feature draws thousands of persons each year from all sections of the Nation and from many parts of the world. From a parking lot observation point on the western edge of Portage Lake, one can get an excellent view of the face of the glacier, the expanse of the lake itself, and the steep surrounding mountains. The unique feature of this panorama, however, is the floating mass of gigantic icebergs which reg-

ularly calve off the face of the glacier. These irregular chunks of ice drift across the lake and come within close range of the observation point. Few other places in the world afford such a closeup view of icebergs from a vantage point on land.

My bill is patterned after legislation which established other National Forest National Recreation Areas. It would direct the Secretary of Agriculture to manage the recreation area for public outdoor recreation benefits and the conservation of biotic, scenic, scientific, geologic, historic, and other values. The management, utilization, and disposal of natural resources would be permitted so long as these functions are compatible with the recreational purposes and programs in the area. Minerals would be withdrawn from location and entry under the mining laws, but could be leased or removed under permits issued by the Secretary of the Interior if the Secretary of Agriculture determines these would have no significant adverse effects on the administration of the area. Permits and leases would contain conditions prescribed by the Secretary of Agriculture to protect the areas resources. The Secretary of Agriculture would also be directed to cooperate with the State of Alaska and its subdivisions in administering the area.

Copies of a map of the proposed national recreation area are available in the Office of the Chief of the Forest Service in Washington and in the Alaska Regional Forester's office in Juneau.

Mr. President, enactment of our bill will bring an important new concept to bear in the management of Federal recreation resources in Alaska. I look forward to its early consideration.

Mr. President, I ask unanimous consent that the full text of this bill be printed in the RECORD at this point.

There being no objection, the bill was ordered to be printed in the RECORD, as follows:

S. 1356

A bill to establish the Seward National Recreation Area in the State of Alaska, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That, in order to provide for the public outdoor recreation use and enjoyment of certain spectacular forested areas, geological areas, lakes, rivers and streams, and other recreational features and resources on the Kenai Peninsula in the State of Alaska by present and future generations and the conservation of scenic, scientific, historic, geologic, and other values contributing to public enjoyment of such lands and waters, there is hereby established, subject to valid existing rights, the Seward National Recreation Area (hereinafter referred to as the "recreation area"), comprising approximately one million, four hundred thousand acres. The boundaries of the recreation area shall be those shown on the map entitled "Proposed Seward National Recreation Area" dated February 1971, which is on file and available for public inspection in the Office of the Regional Forester, Alaska Region, and in the Office of the Chief, Forest Service, United States Department of Agriculture.

SEC. 2. The administration, protection, and development of the recreation area shall be by the Secretary of Agriculture (hereinafter called the "Secretary") in accordance with the laws, rules, and regulations applicable to the national forest system, in such manner as in his judgment will best provide for (1) public outdoor recreation benefits; (2) conservation of biotic, scenic, scientific, geologic, historic, and other values contributing to public enjoyment; and (3) such management, utilization, or disposal of natural resources as in his judgment will promote or are compatible with, and do not significantly impair the purposes for which the recreation area is established.

SEC. 3. Within one year after the effective date of this Act, the Secretary shall publish in the Federal Register a detailed description of the boundaries of the recreation area and such description shall have the same force and effect as if included in this Act: *Provided, however*, That correction of clerical and typographical errors in such legal description may be made.

SEC. 4. The boundaries of the Chugach National Forest are hereby extended to include all of the lands not presently within national forest boundaries lying within the recreation area as described in accordance with section 1 of this Act. Notwithstanding any other provision of law, any Federal property located within the recreation area may, with the concurrence of the agency having custody thereof, be transferred without consideration to the administrative jurisdiction of the Secretary for use by him in carrying out the purposes of this Act.

SEC. 5. Within the boundaries of the recreation area the Secretary is authorized to acquire lands, waters, or other property, or any interest therein, in such manner as he considers to be in the public interest to carry out the purposes of this Act. Any lands, waters, and interests therein owned by or under the control of the State of Alaska or any political subdivision thereof may be acquired only with the consent of such State or political subdivisions. Moneys appropriated from the Land and Water Conservation Fund shall be available for the acquisition of lands, waters, and interests therein for the purposes of this Act. Lands acquired by the Secretary or transferred to his administrative jurisdiction within the recreation area shall become part of the recreation area and of the Chugach National Forest.

SEC. 6. The Secretary shall permit hunting, fishing, and trapping on the land and waters under his jurisdiction within the recreation area in accordance with applicable Federal and State laws; except that the Secretary may issue regulations designating zones where and establishing periods when no hunting, fishing, or trapping shall be permitted for reasons of public safety, administration, wildlife management, or public use and enjoyment. Except in emergencies, any regulations pursuant to the section shall be issued, only after consultation with the Alaska Department of Fish and Game.

SEC. 7. The lands within the recreation area, subject to valid existing rights, are hereby withdrawn from location, entry, and patent under the United States mining laws. The Secretary of the Interior, under such regulations as he deems appropriate, may issue permits or leases for the removal of the nonleasable minerals from lands or interests in lands within the recreation area, and he may permit the removal of leasable minerals from lands or interests in lands within the recreation area in accordance with the Mineral Leasing Act of February 24, 1920, as amended (30 U.S.C. 181 et seq.), or the Acquired Lands Mineral Leasing Act of August 7, 1947 (30 U.S.C. 351 et seq.), if the Secretary of Agriculture finds that such disposition would not have significant adverse effects on the administration of the recreation area: *Provided*, That any lease respecting such minerals in the recreation area shall be issued only with the consent of the Secretary of Agriculture and subject to such conditions as he may prescribe.

All receipts derived from permits and leases issued under the authority of this section for removal of nonleasable minerals shall be paid into the same funds or accounts in the Treasury of the United States and shall be distributed in the same manner as provided for receipts from national forests. Any receipts derived from permits or leases issued on lands within the recreation area under the Mineral Leasing Act of February 25, 1920, as amended, or the Act of August 7, 1947, shall be disposed of as provided in the applicable Act.

SEC. 8. The jurisdiction of the State of Alaska and the United States over waters or any stream included in the recreation area shall be determined by established principles of law. Under the provisions of this Act, any taking by the United States of water rights which are vested under either State or Federal law at the time of enactment of this Act shall entitle the owner thereof to just compensation. Nothing in this Act shall constitute an expressed or implied claim or denial on the part of the Federal Government as to exemption from State water laws.

SEC. 9. The Secretary shall cooperate with the State of Alaska or any political subdivisions thereof in the administration of the recreation area and in the administration and protection of lands within or adjacent to the recreation area owned or controlled by the State or political subdivisions thereof. Nothing in this Act shall deprive the State of Alaska or any political subdivision thereof of its right to exercise civil and criminal jurisdiction within the recreation area, or of its right to tax persons, corporations, franchises, or other non-Federal property, including mineral or other interests, in or on lands or waters within the recreation area.

By Mr. STEVENSON (by request):

S. 1362. A bill to authorize the Commissioner of the District of Columbia to enter into contracts for the payment of the District's equitable portions of the costs of reservoirs on the Potomac River and its tributaries, and for other purposes;

S. 1363. A bill to revise and modernize procedures relating to licensing by the District of Columbia of persons engaged in certain occupations, professions, businesses, trades, and callings, and for other purposes;

S. 1364. A bill to supplement the Motor Vehicle Safety Responsibility Act of the District of Columbia in order to provide for the indemnification of persons sustaining certain losses as a result of the operation of motor vehicles by financially irresponsible persons, and for other purposes;

S. 1365. A bill to establish a revolving fund for the development of housing for low- and moderate-income persons and families in the District of Columbia, to provide for the disposition of unclaimed property in the District of Columbia, and for other purposes;

S. 1366. A bill to designate the legal public holidays to be observed in the District of Columbia;

S. 1367. A bill to authorize the Commissioner of the District of Columbia to lease airspace above and below freeway rights-of-way within the District of Columbia, and for other purposes;

S. 1368. A bill to amend the District of Columbia Alcoholic Beverage Control Act, and for other purposes;

S. 1369. A bill to amend the District of Columbia Code to increase the jurisdictional amount for the administration of small estates, to increase the family allowance, to provide simplified procedures for the settlement of estates, and to

eliminate provisions which discriminate against women in administering estates; and

S. 1370. A bill to amend section 8 of the act approved March 4, 1913 (37 Stat. 974), as amended, to standardize procedures for the testing of utility meters; to add a penalty provision in order to enable certification under section 5(a) of the Natural Gas Pipeline Safety Act of 1968, and to authorize cooperative action with State and Federal regulatory bodies on matters of joint interest; referred to the Committee on the District of Columbia.

DISTRICT OF COLUMBIA LEGISLATION

Mr. STEVENSON. Mr. President, as chairman of the Business, Commerce, and Judiciary Subcommittee of the Committee on the District of Columbia, I have the honor to introduce for appropriate reference nine bills which have been submitted by the District of Columbia government for consideration by the Congress. This is part of the District's legislative package and as soon as the city has completed submission of its program, I intend to announce hearings on the bills within my subcommittee's jurisdiction.

The bills I am today introducing would:

First, amend the District of Columbia Code to increase the jurisdictional amount of administration of small estates from $500 to $2,500, increase the family allowance and provide for simplified procedures for the settlement of such estates.

Second, amend the Alcoholic Beverage Control Act to allow the Board greater flexibility in dealing with licensees.

Third, authorize the District to lease airspace above and below freeway rights of way.

Fourth, establish a revolving fund consisting of appropriated monies repaid to the fund and sums from any other source to be loaned to nonprofit housing sponsors from any other source to be loaned to nonprofit housing sponsors for planning of housing for persons of low and moderate income.

Fifth, amend the present motor vehicle responsibility laws to provide for the indemnification of individuals who sustain losses as a result of the operation of motor vehicles by financially irresponsible individuals.

Sixth, allow the Commissioner of the District of Columbia to enter into contracts for the payment of the District's share of the costs of reservoirs on the Potomac River.

Seventh, revise licensing procedures for various occupations.

Eighth, designate certain legal public holidays so that such holidays shall be celebrated in the District of Columbia in accordance with Public Law 90–363 which sets certain Mondays as the day to celebrate such holidays.

Ninth, standardize the procedures for the testing of certain utility meters.

By Mr. KENNEDY (for himself, Mr. FONG, Mr. ANDERSON, Mr. BAYH, Mr. CASE, Mr. GRAVEL, Mr. HART, Mr. HUGHES, Mr. HUMPHREY, Mr. INOUYE, Mr. JAVITS, Mr. MAGNUSON, Mr. PASTORE, Mr. PELL, Mr. PERCY, Mr. RANDOLPH, and Mr. STEVENS):

S. 1373. A bill to revise the Immigration and Nationality Act. Referred to the Committee on the Judiciary.

Mr. KENNEDY. Mr. President, on behalf of myself and Senators FONG, ANDERSON, BAYH, CASE, GRAVEL, HART, HUGHES, HUMPHREY, INOUYE, JAVITS, MAGNUSON, PASTORE, PELL, PERCY, RANDOLPH, and STEVENS, I introduce, for appropriate reference, a bill to amend the Immigration and Nationality Act.

Mr. President, the Immigration Act of 1965 repealed the discriminatory national origins quota system, and commenced long needed steps to reform basic policy governing the oldest theme in our Nation's history. Since then, additional reform measures have been enacted, and the comprehensive bill I introduce today continues this effort.

In preparing the bill introduced today, I worked with several Members of Congress. Senator FONG, Senator HART, and Senator PELL made important contributions to the development of the legislation. I also sought the advice and counsel of outside experts, including representatives of the American Immigration and Citizenship Conference and its more than 50 member organizations.

The bill goes a long way in continuing the basic reform initiated in 1965. It accomplishes the following objectives:

First, it refines and strengthens the new system established in 1965. It not only remedies the confused situation in the allocation of visas to applicants in Western Hemisphere countries—but also provides a more orderly, flexible, and humane method of allocating visas to applicants of all countries, on a first-come, first-served basis.

Second, it strengthens immigration objectives to reunite families.

Third, it establishes a new humanitarian policy of asylum for refugees and victims of natural calamity.

Fourth, it refines the application of our belief in human dignity and equal opportunity under law, by reestablishing a board of visa appeals and a statute of limitations on deportation.

Fifth, it provides minor adjustments in the nationality and naturalization law, and establishes a Select Commission on Nationality and Naturalization to evaluate the fairness of our general policy in this extremely important, but overlooked area of public concern.

Sixth, but of immediate importance—the bill curbs the massive influx of alien workers from Mexico who are contributing significantly to severe economic depression in many of our border areas.

Mr. President, I would like to elaborate briefly on these objectives—in the order I have listed them—by referring to specific sections of the bill.

(1) REFINEMENT OF THE NEW SYSTEM ESTABLISHED IN 1965

Section 4 establishes a worldwide ceiling of 300,000 immigrants annually, exclusive of immediate family members of U.S. citizens and other special immigrants.

The worldwide ceiling becomes effective on July 1, 1974. In the interim, the present ceiling of 170,000 immigrants from countries in the Eastern Hemisphere continues to operate.

The present ceiling of 120,000 immigrants from countries in the Western Hemisphere is raised to 130,000—and, owing to the special nature of the Cuban refugee program, refugees who adjust their status to permanent resident alien under the act of November 2, 1966, will not be counted against the ceiling.

Section 5 of the bill extends the present 20,000 annual limitation on immigration from any one country in the Eastern Hemisphere, to Western Hemisphere countries as well—except that Canada and Mexico are given a maximum of 35,000 each.

Section 6 amends the preference system established in 1965. In addition to introducing flexibility into the allocation of visas among the seven preferences, this section applies the preference system on a worldwide basis simultaneously with the effective date of the world ceiling.

In the interim, the preference system, which is currently operative only in the Eastern Hemisphere, is broadened to include the Western Hemisphere. But the preference system will operate separately in each hemisphere until July 1, 1974.

As suggested, section 6 of the bill introduces maximum flexibility into the allocation of visas within the preference system. This is accomplished, first of all, by making minor changes in percentage allocations from the pool of visas to each preference category, so as to better reflect the pattern of anticipated demands—and, more importantly, by permitting the drop down of unused visas in any category to meet excessive demand in the category that follows. Visas remaining after the drop down through the seven preference categories will be issued to nonpreference immigrants.

These modifications in the preference system will, among other things, make available additional visas in the categories traditionally used by applicants in Ireland, Germany, the Netherlands, and several other countries.

(2) FAMILY UNITY

On strengthening traditional immigration objectives to reunite families, section 6 of the bill adds parents of permanent resident aliens to the second preference.

It also increases the number of visas available to refugees, who frequently have relatives in the United States.

Section 7 facilitates the admission of the mentally retarded.

Section 22 provides for the issuance of special immigrant visas to clean up the backlog of applicants in the fifth preference for brothers and sisters of U.S. citizens. In Italy, petitions date back several years and contain a residue which resulted from the discriminatory national origins quota system.

To provide relief for qualified fifth preference visa applicants who still wish to join their family in this country, is humane and just.

Additionally, section 3 establishes a Board of Visa Appeals to review the denials of an immigrant visa to relatives of U.S. citizens or permanent resident aliens.

There are many cases on record in

which the denial of a visa by an American consul abroad has raised justifiable skepticism.

Some of these denial cases have been finally settled through the enactment of private immigration bills.

It is true that an informal appeal process currently operates within the Department of State.

Regardless of the Department's findings, however, the final decision rests with the consul abroad. I believe an independent board of visa appeals—under law—will help assure a more equitable treatment of denial cases.

(3) ASYLUM FOR REFUGEES

Sections 6 and 7 of the bill establish a new humanitarian policy of asylum for refugees. First, the definition of a refugee is broadened from its present European and cold war framework, to include the homeless throughout the world. Second, the number of annual refugee admissions allocated within the preference system is raised from the current maximum of 10,200 to 30,000. Third, the Attorney General is authorized to parole into the country additional numbers of refugees in times of emergency, if he determines it to be in the public interest. This merely confirms what we have done over the last 15 years in admitting those who fled Hungary and Cuba and Czechoslovakia. And, fourth, the bill provides a permanent authority to adjust the status of refugee parolees to that of permanent residence, thus avoiding the need for special legislation of the kind enacted for Hungarians and Cubans.

In practice, our country has always been generous in providing resettlement opportunities to refugees, but our permanent immigration law has never included a comprehensive asylum policy. As chairman of the Judiciary Subcommittee on Refugees, I believe it is extremely important that our law fully recognize refugee problems and resettlement needs throughout the world. The bill accomplishes this objective.

(4) HUMAN DIGNITY AND EQUAL OPPORTUNITY UNDER LAW

As suggested earlier, section 3 of the bill establishes a Board of Visa Appeals to review the denials of an immigrant visa to relatives of U.S. citizens or permanent resident aliens.

Section 15 of the bill reestablishes a statute of limitations on deportation. It is an established principle of law that justice requires a time limit, within which authorities must commence proceedings against an individual for any alleged crime or violation of law.

We recognize this principle in the criminal code, the exceptions usually involving capital cases.

But in matters involving the deportation of a lawfully admitted resident alien, this elementary principle does not apply.

The alien may have resided in this country since childhood, or for 20 or 30 years or more. He may have been a product of our society—but he is denied its justice, and its equity under the law.

The absence of a statute of limitations from the basic immigration law is a tragic shortcoming—a glaring injustice which has caused undue personal hardship and anxiety in the lives of many.

All Senators are familiar with such cases. The bill I introduce is a modest attempt to remedy the situation.

(5) NATIONALITY AND NATURALIZATION

Section 23 of the bill establishes a short-term select Commission on Nationality and Naturalization. As stated in the bill:

> The Commission shall make a complete study and investigation of all matters relating to the policy, administration and effect of title III of the Immigration and Nationality Act, including, but not limited to, the effect of federal judicial decisions in recent years on any of the provisions of such title and an analysis and evaluation of the fairness of the laws and regulations, and their administration and effect, relating to nationality and naturalization.

Mr. President, this important segment of public policy has been ignored and overlooked by the Congress, since the codification and amendment of nationality and naturalization laws in 1952.

There is little doubt that many provisions in the basic statute are products of a harsher period in our Nation's history, and should have no place in the public policy of a free society.

But aside from this, court decisions in recent years have altered the statute considerably. The situation clearly demands a comprehensive review and evaluation of our nationality and naturalization policy. I strongly feel this will be more easily and fairly accomplished through the efforts of an independent select commission.

(6) INFLUX OF ALIEN WORKERS FROM MEXICO AND CANADA

Finally, Mr. President, sections 7 and 14 of the bill help to curb the massive influx of alien workers, who are contributing significantly to severe economic depression in many parts of our country.

The grinding poverty, high unemployment, and low wages which mark many communities in our southern border States is well known. A readily available and low-paid workforce from Mexico is an important factor contributing to this distressing situation.

In previous years I have talked at length on this subject in this Chamber and elsewhere. And in both the 90th Congress and the 91st Congress I introduced remedial legislation. I do so again today, in the hope that Congress will finally come to grips with what can only be described as a national disgrace.

Section 7 of the bill refines the so-called "alien commuter system" administered by the Immigration and Naturalization Service. This system, a creature of administrative ingenuity without a statutory base, permits Canadian and Mexican workers who have been lawfully admitted to the United States for permanent residence, and who hold alien registration receipt cards—commonly known as "green cards"—to reside in Canada or Mexico and regularly commute across the border to places of employment in the United States.

A major thrust of our immigration laws has always been to protect the working conditions and job opportunities of American workers. As it currently operates, the 40-year-old commuter system—not provided for in these laws, but directly related to them—does not carry out this objective. It is true that potential commuters among many of the current applicants for an immigrant visa are covered by the labor clearance provisions of the Immigration Act of 1965. But once an applicant is given permanent resident status as a bona fide immigrant—once he receives his green card—for all practical purposes he holds in his hand a permanent work permit for employment in the United States.

I do not believe aliens should be given the unique privilege of being considered bona fide immigrants for purposes of employment in this country, when they choose to reside across the border and fail to become immigrants in the sense contemplated by law—and, more importantly, when their employment is so clearly detrimental to the economic conditions, the job opportunities, and the organizing and collective bargaining efforts of American workers.

The proposed amendment to section 212 of the Immigration and Nationality Act does not end the commuter system but it does refine its current operations. The amendment simply says that each commuter alien must be regularly certified every 6 months by the Department of Labor, that his presence in the United States to seek or continue employment does not adversely affect the wages and working conditions of American workers similarly employed. The amendment provides for the revocation of a commuter alien's labor clearance, if he violated administrative regulations, such as a ban on strikebreaking—and this regulation needs strengthening—prescribed by the Department of Labor and the Immigration and Naturalization Service to carry out the purpose of this amendment.

Section 14 of the bill, among other things, imposes criminal sanctions on employers who knowingly employ illegal entrants or those in an immigration status in which employment is not authorized. There is agreement in nearly all quarters that the presence of illegal entrants from Mexico within the American labor market continues to be a serious problem. An even greater problem, however, is apparently generated by Mexican nationals who enter the United States as bona fide visitors, usually on 72-hour passes—commonly known as white cards. Statistics compiled by the Immigration and Naturalization Service are not adequate to gage the full extent of employment among these visitors. Nevertheless, it is estimated that some 2 million white cards are currently in use, and that tens of thousands are issued annually.

Because the cards are undated and no record of entry is made at the border, Mexican nationals find them an extremely convenient vehicle to enter the United States—and with impunity acquire employment, remaining for extended periods of time in violation of their limited status as 3-day visitors. Moreover, there are no effective statutory or administrative regulations to deter employers from knowingly hiring the alien visitors. In fact, as it now stands, the Immigration and Nationality Act expressly facilitates their employment.

Mr. President, the influx of an alien workforce from Mexico, to compete for the limited number of jobs available in border areas, is compounding an already serious situation, and, understandably, producing bitter resentment among the severely disadvantaged American workers.

In these days of increased agitation by those who find they have no redress of grievances, the alien worker issue could well become explosive, with grave local and international consequences. I believe the situation demands the very urgent and active concern of the administration and the Congress. It demands an orderly pursuit of justice and fair play. Some measure of relief is needed promptly.

I believe that the enactment of these amendments—if coupled with a strengthening and more effective implementation of administrative regulations—will contribute a great deal to a reasonable and humane remedy of the chronic problems faced by the influx of workers from Mexico.

I fully appreciate that the rather free flow of nationals from neighboring countries into the United States evolved from a recognition of the special relations which we have had with these countries over the years. And I believe the parties concerned can continue to enjoy the mutual benefits of these relations, while at the same time curbing the adverse effects alien workers, including the exploitation of the workers themselves. In fact, a solution to these festering problems can only help to insure that the spirit of cordiality at the border will continue without difficulty in the years ahead.

Mr. President, I have outlined what I feel are today's principal issues in the immigration field. And I strongly feel that unless informed citizens, the Congress, and the adminstration give these issues the attention they need and deserve, much chaos will result in a significant area of public policy.

I urge Senators to join the movement for continuing reform.

Mr. President, I ask unanimous consent that the bill I introduce today, and a summary of its provisions, be printed at this point in the RECORD.

There being no objection, the bill and summary were ordered to be printed in the RECORD, as follows:

S. 1373

A bill to revise the Immigration and Nationality Act

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Immigration and Nationality Act Amendments of 1971."

SEC. 2. Subsection (a) (27) of Section 101 of the Immigration and Nationality Act (8 U.S.C. 1101) is amended—

(1) by striking out subparagraph (A) and redesignating subparagraphs (B), (C), (D), and (E) as subparagraphs (A), (B), (C), and (D), respectively;

(2) by striking out "carrying on the vocation of minister of a religious denomination" in the subparagraph redesignated as subparagraph (C) and inserting in lieu thereof "performing duties which are related to the religious activities of a religious denomination"; and

(3) by amending the subparagraph redesignated as subparagraph (D) to read as follows:

"(D) an immigrant who is an employee, or an honorably retired former employee, of the United States Government abroad, and who has performed faithful, loyal, and efficient service for a total of fifteen years, or more, and his accompanying spouse and children: *Provided,* That the principal officer of a Foreign Service establishment, in his discretion, shall have recommended the granting of special immigrant status to such alien and the Secretary of State approves such recommendation and finds that it is in the national interest to grant such status."

SEC. 3. Section 104 of the Immigration and Nationality Act (8 U.S.C. 1104) is amended by adding at the end thereof the following new subsection:

"(g) (1) There is hereby established within the Bureau of Security and Consular Affairs a Board of Visa Appeals (hereafter referred to in this subsection as the 'Board'), to be independent of the Visa Office. The Board shall consist of five members to be appointed by the Secretary of State, who shall designate one member as Chairman. The practice and procedure before the Board shall be in accordance with this subsection and, subject to paragraph (4), such regulations as the Secretary of State may prescribe.

"(2) Upon petition—

"(A) by any citizen of the United States claiming that an alien outside the United States is entitled to (i) a preference status by reason of a relationship to the petitioner described in paragraph (1), (4), or (5) of section 203(a), or (ii) an immediate relative status under section 201(b), or

"(B) by any alien lawfully admitted for permanent residence claiming that an alien outside the United States is entitled to a preference status by reason of the relationship to the petitioner described in paragraph (2) of section 203(a).

the Board shall have jurisdiction to review any determination of a United States consular officer refusing an immigration visa, or revoking an immigrant visa issued, to any such alien outside the United States who has applied for classification as a preference immigrant described in any such paragraph or as an immediate relative. Each alien shall be informed of the review procedure available under this subsection when a determination refusing or revoking an immigrant visa to him is made by a consular officer. No petition for review may be filed with the Board more than sixty days after the date of notification to an alien of the making of the determination with respect to which review is sought.

"(3) Any review by the Board under this subsection shall be conducted solely upon the basis of the visa application and any other supporting documents submitted in connection with such application by or on behalf of the alien concerned, and any other documents, materials, or information in the possession of and considered by the consular officer, together with any briefs, memoranda, or arguments submitted in writing by or on behalf of the alien. No alien, solely by virtue of a petition for review by the Board under this subsection, shall be entitled to entry or admission into the United States.

"(4) The decision of the Board in each case shall be in writing and shall be communicated to the petitioner and the alien concerned. Decisions of the Board under this subsection shall be final and conclusive on all questions of law and fact relating to the issuance or revocation of a visa and shall not be subject to review by any other official, department, agency, or establishment of the United States; but, nothing in this subsection shall be construed to limit the application of section 221(d)."

SEC. 4. (a) Subsection (a) of section 201 of the Immigration and Nationality Act (8 U.S.C. 1151) is amended to read as follows:

"(a) Exclusive of special immigrants defined in section 101(a)(27), of alien refugees who may apply for adjustment of status to that of aliens lawfully admitted to the United States for permanent residence under the Act of November 2, 1966 (80 Stat. 1161; 8 U.S.C. 1255 note), and of the immediate relatives of United States citizens specified in subsection (b) of this section, the number of aliens who may be issued immigrant visas or who may otherwise acquire the status of an alien lawfully admitted to the United States for permanent residence, (i) shall not in any of the first three quarters of any fiscal year exceed a total of eighty thousand and (ii) shall not in any fiscal year exceed a total of three hundred thousand: *Provided,* That, during the period from the effective date of the Immigration and Nationality Act Amendments of 1971 through June 30, 1974, the number of aliens specified in this subsection (a) shall not in any of the first three quarters of any fiscal year exceed a total of forty-five thousand and shall not in any fiscal year exceed a total of one hundred seventy thousand for aliens ascribed to independent foreign countries of the Eastern Hemisphere, and (B) shall not in any of the first three quarters of any fiscal year exceed a total of thirty-five thousand and shall not in any fiscal year exceed a total of one hundred thirty thousand for aliens ascribed to independent foreign countries of the Western Hemisphere."

(b) Subsections (c), (d), and (e) of such section are repealed.

SEC. 5. (a) Subsection (a) of section 202 of the Immigration and Nationality Act (8 U.S.C. 1152) is amended—

(1) by striking out "and the number of conditional entries" in the first proviso—

(2) by amending the second proviso to read as follows: "*Provided further,* That, notwithstanding the preceding proviso, the total number of immigrant visas made available to natives of any country contiguous to the United States shall not exceed thirty-five thousand in any fiscal year."; and

(b) Subsection (c) of such section is amended by striking out "shall not exceed 1 per centum" and insert in lieu thereof "shall not exceed 3 per centum".

SEC. 6. (a) Subsection (a) of section 203 of the Immigration and Nationality Act (8 U.S.C. 1153) is amended—

(1) by striking out "or their conditional entry authorized, as the case may be," in the portion which precedes paragraph (1);

(2) in paragraph (1), by striking out "20" and insert in lieu thereof "10";

(3) in paragraph (2), by inserting a comma and "or parents" after "unmarried daughters" and insert after "permanent residence" the following: ": *Provided,* That in the case of parents, such alien lawfully admitted for permanent residence must be at least twenty-one years of age";

(4) in paragraph (3), by striking out "10" and insert in lieu thereof "15", and insert after "201(a)(ii)," the following: "plus any visas not required for the classes specified in paragraphs (1) and (2),";

(5) in paragraph (5), by striking out "24" and insert in lieu thereof "20", and by striking out "brothers or sisters" in that paragraph and inserting in lieu thereof "unmarried brothers or unmarried sisters";

(6) in paragraph (6), by striking out "10" and insert in lieu thereof "15", and insert after "201(a)(ii)," the following: "plus any visas not required for the classes specified in paragraphs (1) through (5),"; and

(7) by amending paragraph (7) to read as follows:

"(7)(A) Visas shall next be made available, pursuant to such regulations as the Secretary of State may prescribe and in a number not to exceed 10 per centum of the number specified in section 201(a)(ii), to alien refugees described in subparagraph (B), who apply for admission to the United States.

"(B) The term 'alien refugee' means (i) any alien (I) who has left or shall leave from and is unwilling to return to any country

owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion, or (II) who has been uprooted by natural calamity or military operations and who is unable to return to his usual place of abode, and (ii) the spouse and children of any such alien, if accompanying or following to join him.".

(b) Subsections (g) and (h) of such section are repealed.

SEC. 7. (a) Paragraph (4) of subsection (a) of section 212 of the Immigration and Nationality Act (8 U.S.C. 1182(a)) is amended by striking "or a mental defect";

(b) Paragraph (14) of subsection (a) of such section is amended by striking out "to special immigrants defined in section 101(a)(27)(A) (other than the parents, spouses, or children of United States citizens or aliens lawfully admitted to the United States for permanent residence),";

(c) Paragraph (24) of subsection (a) is repealed;

(d) Subsection (b) of such section is amended by striking out "paragraph (25) of subsection (a)" at the first place it appears, and inserting in lieu thereof "paragraphs (1) or (25) of subsection (a)";

(e) Paragraph (5) of subsection (d) of such section is amended to read as follows:

"(5)(A) The Attorney General may in his discretion parole into the United States temporarily under such conditions as he may prescribe for emergent reasons or for reasons deemed strictly in the public interest any alien applying for admission as an admission of the alien and when the purposes of such parole shall, in the opinion of the Attorney General, have been served the alien shall forwith return or be returned to the custody from which he was paroled and thereafter his case shall continue to be dealt with in the same manner as that of any other applicant for admission to the United States.

"(B) The Attorney General, for emergent reasons and in order to promote the national interest, and after consultation with the Secretary of State and the appropriate committees in the Senate and the House of Representatives, may parole into the United States pursuant to such regulations as he may prescribe any alien refugees or class of refugees as described in section 203(a)(7).

"(C) Notwithstanding the numerical limitations specified in any other section of this Act, any alien who has been paroled into the United States as a refugee pursuant to subparagraph (B), whose parole has not therefore been terminated by the Attorney General pursuant to such regulations as he may prescribe, who has been in the United States for at least two years and who has not acquired permanent residence, shall forthwith return or be returned to the custody of the Service and shall thereupon be inspected and examined for admission into the United States, and his case dealt with in accordance with the provisions of sections 235, 236, and 237.

"(D) Any alien who, pursuant to subparagraph (C), is found, upon inspection by the immigration officer or after hearing before a special inquiry officer, to be admissible as an immigrant under this Act at the time of his inspection and examination, except for the fact that he was not and is not in possession of the documents required by section 212(a)(20), shall be regarded as lawfully admitted to the United States for permanent residence as of the date of his arrival."

(f) Subsection (g) of such section is amended by striking out "who is excludable from the United States under paragraph (1) of subsection (a) of this section, or any alien".

(g) Subsection (h) of this section is amended to read as follows:

"(h) Any alien, who is excludable from the United States under paragarph (9), (10), (12), or (19) of this section, who (A) is the spouse or the unmarried son or daughter, or the minor unmarried lawfully adopted child, of a United States citizen, or of an alien lawfully admitted for permanent residence, or of an alien who has been issued an immigrant visa, or (B) has a son or daughter who is a United States citizen, or an alien lawfully admitted for permanent residence, shall, if otherwise admissible, be issued a visa and admitted to the United States for permanent residence (1) if it shall be established to the satisfaction of the Attorney General that (A) the alien's exclusion would result in hardship to such spouse, parent, or son or daughter of such alien, and (B) the admission to the United States of such alien would not be contrary to the national welfare, safety, or security of the United States; and (2) if the Attorney General, in his discretion, and pursuant to such terms, conditions, and procedures as he may by regulations prescribe, has consented to the alien's applying or reapplying for a visa and for admission to the United States."

(h) Such section is amended by adding at the end thereof a new subsection as follows:

"(j) Any alien lawfully admitted for permanent residence whose principal, actual dwelling place is in a foreign country contiguous to the United States and is returning from a temporary stay in such foreign country to seek or continue employment in the United States shall be admitted into the United States only if the Secretary of Labor has determined and certified to the Attorney General within six months prior to the date of admission that the employment of such alien will not adversely affect the wages and working conditions of workers in the United States similarly employed, and if such certification has not been revoked on any ground. The provisions of this subsection shall be applicable to any aliens lawfully admitted for permanent residence, whether or not such aliens were so admitted prior to or on or after the date of enactment of this subsection."

SEC. 8. Section 223(b) (8 U.S.C. 1203) is amended to read as follows:

"If the Attorney General finds (1) that the applicant under subsection (a)(1) has been lawfully admitted to the United States for permanent residence, or that the applicant under subsection (a)(2) has, since admission, maintained the status required of him at the time of his admission and such applicant desires to visit abroad and to return to the United States to resume the status existing at the time of his departure for such visit, (2) that the application is made in good faith, and (3) that the alien's proposed departure from the United States would not be contrary to the interests of the United States, the Attorney General may, in his discretion, issue the permit. The permit shall be valid for not more than three years from the date of issuance and shall be in such form as shall be by regulations prescribed for the complete identification of the alien."

SEC. 9. (a) Section 224 of the Immigration and Nationality Act (8 U.S.C. 1204) is amended by inserting "alien refugee," immediately after "special immigrant" each place it appears.

(b) The section heading for such section is amended by inserting ", ALIEN REFUGEE," immediately after "IMMEDIATE RELATIVE."

(c) The item relating to such section 224 in the table of contents of such Act is amended by inserting ", alien refugee," immediately after "immediate relative."

SEC. 10. Section 241(a)(10) of the Immigration and Nationality Act (8 U.S.C. 1251(a)(10)) is amended by striking out the language within the parentheses and inserting in lieu thereof the following: "other than an alien who is described in section 101(a)(27)(A) or is a native-born citizen of any independent foreign country of the Western Hemisphere or of the Canal Zone."

SEC. 11. Section 244(d) of the Immigration and Nationality Act (8 U.S.C. 1254(d)) is amended by striking out "is entitled to a special immigrant classification under section 101(a)(27)(A), or".

SEC. 12. Section 245(c) of the Immigration and Nationality Act (8 U.S.C. 1255(c)) is amended by striking out "any country of the Western Hemisphere" and inserting in lieu thereof "any country contiguous to the United States".

SEC. 13. Section 248 (8 U.S.C. 1258) is amended to read:

"SEC. 248. The Attorney General may, under such conditions as he may describe, authorize a change from any nonimmigrant classification to any other nonimmigrant classification in the case of any alien lawfully admitted to the United States as a nonimmigrant who is continuing to maintain that status, except (1) an alien classified as a nonimmigrant under paragraph (15)(D) of section 101(a), or (2) an alien classified as a nonimmigrant under paragraph 15(C) or an alien classified as a nonimmigrant under paragraph (15)(J) of section 101(a) who is ineligible to apply for an immigrant visa or permanent residence by reason of section 212(e) unless he applies to have his classification changed from a classification under paragraph 15(C) or (J) to a classification under paragraph 15(A) or 15(G) of section 101(a)."

SEC. 14. Section 274 (8 U.S.C. 1324) is amended as follows:

(a) Paragraph (a) is amended by deleting the proviso thereto.

(b) Paragraph (b) is amended to read as follows:

"(b) Any person, including any person acting as an agent of an employer, who knowingly employs any alien who is in the United States in violation of law or in an immigration status in which such employment is not authorized, shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine not exceeding $1,000 or by imprisonment not exceeding one year, or both, for each alien in respect to whom any violation of this subsection occurs. Whenever the defendant is shown to have employed an alien without inquiring whether the prospective employee was a citizen of the United States or an alien and, if an alien, whether he could present evidence of alien registration showing that he was lawfully admitted to the United States for permanent residence or evidence that the employment is permissible under his immigration status, such employment shall be deemed prima facie evidence of the defendant's knowledge that the alien was in the United States in violation of law to authorize conviction."

(c) A new paragraph (c) is added to read as follows:

"(c) No officer or person shall have authority to make any arrest for a violation of any provision of this section except officers and employees of the Service designated by the Attorney General, either individually or as a member of a class, and all other officers whose duty it is to enforce criminal laws."

(d) A new paragraph (d) is added to read as follows:

"(d) For the purposes of this section, the employment of five or less aliens by any person, including any person acting as an agent of an employer, shall not be deemed to be in violation of law."

SEC. 15. (a) (1) Chapter 9 of title II of the Immigration and Nationality Act (8 U.S.C. 1351–1362) is amended by adding at the end thereof the following new section:

"LIMITATIONS ON DEPORTATION

"SEC. 293. (a) No alien lawfully admitted to the United States for permanent residence, other than an alien who obtained such status by fraud, concealment, misrepresentation, or other misconduct, shall be deported solely by reason of any conduct or event occurring or condition existing more than ten years prior

to the institution of deportation proceedings against him.

"(b) No alien lawfully admitted to the United States for permanent residence before attaining the age of fourteen years shall be deported if he has resided continuously within the United States for a period of at least ten years immediately preceding the institution of deportation proceedings against him and after having been lawfully admitted for permanent residence, including as part of such period at least nine years of physical presence in the United States.

"(c) No alien lawfully admitted to the United States for permanent residence other than an alien who obtained such status by fraud, concealment, misrepresentation, or other misconduct, shall be deported if he has resided continuously within the United States for a period of at least twenty years immediately preceding the institution of the deportation proceedings against him and after having been lawfully admitted for permanent residence, including as part of such period at least eighteen years of physical residence in the United States.

"(d) The benefits of this section shall be applicable to any alien notwithstanding (1) that any of the facts by reason of which subsection (a), (b), or (c) may be applicable, including the date of admission for permanent residence in the United States, occurred or existed prior to the effective date of the Immigration and Nationality Act Amendments of 1969, or (2) that the status of an alien lawfully admitted for permanent residence was erroneously or illegally granted to such alien through no fault of his own, that this section shall not be applicable to aliens as to whom deportation proceedings are pending on such effective date.

"(e) Any alien whose deportation is prevented under this section and whose status as an alien lawfully admitted for permanent residence was erroneously or illegally granted through no fault of his own shall remain in that status notwithstanding any provision of this Act."

(2) The table of contents of chapter 9 of title II of the Immigration and Nationality Act is amended by adding at the end thereof the following: "Sec. 293. Limitations on Deportation."

(b) Section 340 of the Immigration and Nationality Act (8 U.S.C. 1451) is amended by adding at the end thereof the following new subsection:

"(k) No proceeding under this section shall be instituted more than ten years after a naturalized citizen has been admitted to citizenship."

SEC. 16. The first proviso contained in paragraph (1) of section 312 of the Immigration and Nationality Act (8 U.S.C. 1423) is amended by striking out "or to any person who, on the effective date of this Act, is over fifty years of age and has been living in the United States for periods totaling at least twenty years" and inserting in lieu thereof the following: "or to any person who, on the date of the filing of his petition for naturalization as provided in section 334, is over fifty years of age and has been living in the United States for periods totaling at least twenty years".

SEC. 17. 316(b) of the Immigration and Nationality Act (8 U.S.C. 1427 (b)) is amended—

(1) in the matter preceding clause (1) of the second paragraph thereof by inserting "or is employed by an accredited American philanthropic agency or organization, or is the sole owner or proprietor of" immediately after "recognized as such by the Attorney General,";

(2) in clause (1), by inserting "or to be employed by such accredited American philanthropic agency or organization," immediately after "such firm or corporation,"; and

(3) at the end thereof by inserting the following new sentence: "The granting of the benefits of this subsection to a person who has established to the satisfaction of the Attorney General that he will be employed in a capacity described in this subsection shall extend to the spouse, children, and unmarried sons and daughters of such person who, after being lawfully admitted for permanent residence, are physically present abroad as members of the household of such person during the period that such person is absent from the United States in the capacity for which such benefits are granted."

SEC. 18. Clause (1)(B) of section 319(b) of the Immigration and Nationality Act (8 U.S.C. 1430(b)) is amended by inserting "of an accredited American philanthropic agency or organization, or is the sole owner or proprietor or in the employment" immediately preceding "of an American firm."

SEC. 19. Sections 320 and 321 of the Immigration and Nationality Act (8 U.S.C. 1431–1432) are amended by striking out the phrase "sixteen years" wherever it appears and inserting in lieu thereof "eighteen years".

SEC. 20. Section 323 of the Immigration and Nationality Act (8 U.S.C. 1434) is amended as follows:

(1) In subsection (a)—

(A) by inserting "and" at the end of clause (1);

(B) by striking out the semicolon and the word "and" at the end of clause (2) and insert in lieu thereof a period; and

(C) by striking out clause (3).

(2) In subsection (b), by striking out "only two years' residence and one year's physical presence in the United States during the two-year period immediately preceding the filing of the petition" and insert in lieu thereof the following: "physical presence in the United States at the time of naturalization."

(3) By striking out subsection (c).

SEC. 21. The third sentence of section 336 (c) of the Immigration and Nationality Act (8 U.S.C. 1447(c)), relating to final hearings upon petitions for naturalization, is amended by striking out "sixty" and inserting in lieu thereof "thirty".

SEC. 22. Section 338 of the Immigration and Nationality Act (8 U.S.C. 1449) is amended by striking out "and personal description of the naturalized person, including age, sex, marital status, and country of former nationality" and inserting in lieu thereof "and personal description of the naturalized person, including age, sex, and marital status".

SEC. 23. (a) There is hereby established a Select Commission on Nationality and Naturalization (hereinafter referred to as the "Commission") to be composed of nine members as follows:

(1) three members appointed by the President, at least one of whom shall be from each of the major political parties;

(2) three Members of the Senate appointed by the President of the Senate, with the consent of the majority and minority leaders, two of whom shall be from the majority party of the Senate; and

(3) three Members of the House of Representatives appointed by the Speaker of the House of Representatives with the consent of the majority and minority leaders, two of whom shall be from the majority party in the House of Representatives. The President shall designate one of the persons appointed under clause (1) of this subsection as chairman.

(b) The Commission shall make a complete study and investigation of all matters relating to the policy, administration, and effect of title III of the Immigration and Nationality Act, including but not limited to, the effect of Federal judicial decisions in recent years on any of the provisions of such title and an analysis and evaluation of the fairness of the laws and regulations, and their administration and effect, relating to nationality and naturalization.

(c)(1) The Commission shall make a preliminary report to the President and Congress on or before the first day of the seventh month after the effective date of this Act. The Commission shall make a final report to the President and the Congress not later than six months after the submission of its preliminary report. Such reports shall include the results of its study and investigation, together with such legislative and administrative recommendations relating to title III of the Immigration and Nationality Act, as the Commission considers appropriate.

(2) The Commission shall cease to exist sixty days after the submission of its final report.

(d) All Federal departments, agencies, and instrumentalities shall cooperate fully with the Commission to the end that it may effectively carry out its duties.

(e)(1) Each member of the Commission who is not otherwise employed in the service of the Government of the United States shall receive compensation at the rate of $100 for each day he is engaged in the performance of his duties as a member of the Commission and shall be allowed travel expenses, including per diem in lieu of subsistence, while away from his home or regular place of business, as authorized by section 5703 of title 5, United States Code.

(2) Each member of the Commission who is otherwise employed in the service of the Government of the United States shall serve without compensation in addition to that received in his regular employment, but shall be allowed travel, transportation, and subsistence expenses while engaged in the performance of his duties as a member of the Commission, as authorizd by subchapter I of chapter 57 of title 5, United States Code.

(f) The Commission may appoint such personnel as it deems necessary in accordance with the provisions of title 5, United States Code, governing appointments in the competitive service, and shall fix the compensation of such personnel in accordance with the provisions of chapter 51 and subchapter III of chapter 53 of such title relating to classification and General Schedule pay rates.

(g) The Commission is authorized to obtain the services of experts and consultants in accordance with section 3109 of title 5, United States Code, but at rates not to exceed $100 a day for individuals.

SEC. 24. (a) Any alien who is eligible for immigrant status under section 203(a)(5) of the Immigration and Nationality Act on the basis of a petition filed with the Attorney General prior to the effective date of this Act, and the spouse and children of such alien if accompanying or following to join him, shall be held to be special immigrants, and if otherwise admissible under the provisions of the Immigration and Nationality Act shall be issued special immigrant visas if, upon his application for an immigrant visa and at the time of his admission to the United States, such alien is found to have retained his relationship to the petitioner and status as established in the approved petition.

(b) The Secretary of State shall make reasonable estimates of the number of visas which shall be issued under subsection (a) and, based on such estimates not more than 35 per centum of such visas may be issued in each of the first two fiscal years beginning July 1, 1971. The visas authorized to be issued under this subsection shall be issued to eligible immigrants in the order in which petitions in their behalf were filed with the Attorney General under section 204 of the Immigration and Nationality Act.

SEC. 25. (a) Notwithstanding the provisions

of section 245 of the Immigration and Nationality Act and without regard to the numerical limitations specified in that Act, any alien who, on or before the effective date of this Act, (1) has been granted by the Secretary of Labor an indefinite certification for employment in the Virgin Islands of the United States which has not subsequently become invalid, and (2) has been inspected and admitted to the Virgin Islands of the United States, and the spouse and minor unmarried children of any such alien may have his status adjusted by the Attorney General, in his discretion and under such regulations as he may prescribe, to that of an alien lawfully admitted for permanent residence, or may be issued an immigrant visa: *Provided*, That the alien (i) makes application for such adjustment of status or immigrant visa, (ii) is eligible to receive an immigrant visa, and (iii) is admissible to the United States.

(b) Upon approval of an application for adjustment of status under subsection (a) of this section, the Attorney General shall record the alien's lawful admission for permanent residence as of the date of the order of the Attorney General approving the application for adjustment of status.

(c) Applications for adjustment of status or for immigrant visas pursuant to the provisions of subsection (a) of this section may be initiated on or after the first day of the first fiscal year following the enactment of this Act, but not later than the last day of the third such fiscal year. Applications for immigrant visas pursuant to the provisions of this section shall be considered in such order as the Secretary of State may by regulations prescribe.

SEC. 26. Section 21 of the Act of October 3, 1965 (79 Stat. 916, 920), is hereby repealed.

SEC. 27. This Act shall become effective on the first day of the first month which begins at least thirty days after enactment.

SUMMARY OF IMMIGRATION BILL INTRODUCED BY SENATOR EDWARD M. KENNEDY

Section 1: designates the bill the Immigration and Nationality Act Amendments of 1971.

Section 2: provides special immigrant status to aliens "performing duties which are related to the religious activities of a religious denomination."

Section 3: establishes a Board of Visa Appeals as an independent office within the Bureau of Security and Consular Affairs of the Department of State. The Board will consist of five members, including a chairman, to be appointed by the Secretary of State. The Board shall have jurisdiction to review the denial of an immigrant visa to a relative of a United States citizen or permanent resident alien, upon the petition of such citizen or alien.

Section 4: Provides for establishing a worldwide ceiling of 300,000 immigrants annually, exclusive of special immigrants, to become operative on July 1, 1974. In the interim the current ceiling of 170,000 for the Eastern Hemisphere continues to operate, and the current ceiling of 120,000 for the Western Hemisphere is increased to 10,000. Cuban refugees who adjust their status to aliens lawfully admitted for permanent residence are removed from ceiling considerations.

Section 5: extends to Western Hemisphere countries the 20,000 annual limitation on immigration from any one country which is currently applicable to countries in the Eastern Hemisphere, and raises the limitation on dependent areas from 200 to 600 annually.

Section 6: amends the preference system.

(a) The preference system, currently operative only in the Eastern Hemisphere, becomes operative on a worldwide basis simultaneously with the effective date of the world ceiling. In the interim the preference system operates separately in each hemisphere.

(b) The percentum of first preference (unmarried sons and daughters of U.S. citizens) is changed from 20 to 10.

(c) The second preference, currently the spouses and unmarried sons and daughters of aliens lawfully admitted for permanent residence, is expanded to include parents of permanent resident aliens. The percentum of 20 remains.

(d) The percentum of third preference (members of professions or persons of exceptional ability in the sciences and arts) is changed from 10 to 15.

(e) The fourth preference (married sons or daughters of U.S. citizens) and its percentum of 10 remains unchanged.

(f) The fifth preference, currently the brothers and sisters of U.S. citizens, eliminates those who are married. The percentum is changed from 24 to 20.

(g) The percentum of sixth preference (skilled and unskilled workers in short supply) is changed from 10 to 15.

(h) The percentum of seventh preference (refugees) is changed from 6 to 10. Instead of being given "conditional entry" in accordance with regulations prescribed by the Attorney General, refugees are issued regular immigrant visas in accordance with regulations prescribed by the Department of State. The definition of a "refugee" is broadened to establish a worldwide asylum policy for the United States: "The term alien refugee means any alien who has left or shall leave from and is unwilling to return to any country owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion, or who has been uprooted by natural calamity or military operations. . . ."

(i) to permit maximum flexibility in the use of visas, available visas not required in any one preference are to be used in meeting excessive demand in succeeding preference categories.

Section 7: facilitates the admission of the mentally retarded and others; provides a permanent authority for the Attorney General to parole refugees into the country for emergency reasons and subsequently adjust their status to permanent residence; and regulates the flow of employable "commuter aliens" from Canada and Mexico.

Section 8: removes the renewal provision for re-entry permits, but extends their validity from one to three years. Re-entry permits are required for aliens in the United States who wish to maintain their immigration status while temporarily outside of the country.

Section 9, 10, and 11: contain technical amendments.

Section 12: except in the case of natives of Canada, Mexico and adjacent islands—provides for the adjustment of status of Western Hemisphere natives on the same basis as aliens from the Eastern Hemisphere.

Section 13: facilitates "exchange visitors" in changing to another non-immigrant status.

Section 14: imposes sanctions on persons who knowingly employ aliens who are illegally in the U.S. or in an immigration status which prohibits employment.

Section 15: provides for a statute of limitations to prevent the deportation of:

(1) of aliens lawfully admitted to the U.S. for permanent residence solely by reason of any conduct or conditions which occurred or existed ten years prior to the institution of deportation proceedings;

(2) aliens lawfully admitted to the United States for permanent residence if such aliens entered the U.S. prior to age 14 and have resided in the U.S. for a period of ten years immediately preceding the institution of deportation proceedings;

(3) aliens lawfully admitted to the U.S. for permanent residence if such aliens have resided continuously within the U.S. for a period of at least 20 years immediately preceding the institution of deportation proceedings against him.

The Statute of Limitations will not apply to aliens who received their residence status illegally.

Section 16: facilitates the naturalization of persons over 50 years who have been living in the U.S. for at least 20 years.

Section 17 and 18: facilitates the naturalization of permanent resident aliens employed overseas by an accredited American philanthropic organiaztion, or the alien spouse of a U.S. citizen employed by such organization.

Section 19: permits the derivative acquisition of citizenship by a minor child, through his parents' naturalization, through 18 years of age instead of 16 as currently provided.

Section 20: facilitates the naturalization of an alien child adopted by a U.S. citizen parent who employed overseas by an accredited American philanthropic organization.

Section 21: provides that final hearings upon petitions for naturalization can be held as late as 30 days before a pending general election, rather than 60 days as currently provided.

Section 22: eliminates the question of "Country of former nationality" from the naturalization certificate.

Section 23: establishes a Select Commission on Nationality and Naturalization to "make a complete study and investigation of all matters relating to the policy, administration, and effect of title III of the Immigration and Nationality Act, including but not limited to, the effect of Federal judicial decision in recent years on any of the provisions of such title and an analysis and evaluation of the fairness of the laws and regulations, and their administration and effect, relating to nationality and naturalization." The Commission shall be composed of nine members—three from the Senate, three from the House, and three appointed by the President—and shall file its final report one year following enactment of this bill.

Section 24: cleans up the backlog in fifth preference (brothers and sisters of U.S. citizens), by authorizing the issuance of special immigrant visas to applicants whose petition for admission was filed prior to the effective date of this Act.

Section 25: establishes a temporary program to facilitate the adjustment of status of certain nonimmigrant aliens in the Virgin Islands.

Section 26: contains a technical amendment.

Section 27: contains enactment date.

By Mr. THURMOND:

S. 1374. A bill to exempt from taxation certain property of the Daughters of the American Revolution in the District of Columbia. Referred to the Committee on the District of Columbia.

EXEMPT FROM TAXATION CERTAIN PROPERTY OF THE DAR IN THE DISTRICT OF COLUMBIA

Mr. THURMOND. Mr. President, this bill that I am introducing today would exempt from taxation the Chapter House, and the land on which it is situated, owned by the District of Columbia Daughters of the American Revolution, Inc., a nonprofit District of Columbia corporation.

Real estate taxes on this property have increased over 450 percent during the past 10 years, notwithstanding the fact that no substantial improvements to the premises have been made. This property

is the official residence of 57 chapters of the DAR in Washington which has a total membership of 3,300 members. The gross annual dues of the 3,300 members is less than annual real estate taxes and personal property taxes.

Mr. President, the following is a chart showing the tax increases on this property during the past decade:

Annual real estate taxes

1960	$1,719.60
1965	3,971.78
1968	6,060.58
1970	7,972.76

The subject property was acquired by the District of Columbia DAR after 16 years of effort by many of its members, and real estate taxes have been paid for a period in excess of 25 years. These taxes have now become so burdensome as to very likely result in a loss of the property unless relief is obtained.

Prior special acts of Congress have granted similar exemptions from taxation to the Young Women's Christian Association, the Young Men's Christian Association, the American Legion, the National Education Association, Society of the Cincinnati, American Veterans of World War II, Veterans of Foreign Wars, National Women's Party, American Association of University Women, National Guard Association, and numerous other organizations similar in type and character to the District of Columbia Daughters of the American Revolution, Inc. Similarly, such organizations and the Daughters of the American Revolution Chapter Houses throughout the United States have typically been granted exemptions from State and county real estate taxes in the respective jurisdictions in which they are located.

Mr. President, the DAR is a nonprofit organization classified by the Internal Revenue Service as "patriotic and educational," and the property which they own in the District of Columbia is not income producing. In order to prevent this worthwhile, patriotic organization from losing its property because of exorbitant taxes, exemption from taxation must be accorded the DAR District of Columbia property by Congress.

Mr. President, I send this bill to the desk and ask unanimous consent that it lie on the desk for 1 week and that any others who may wish to cosponsor this bill have their name added, and that after such time this bill be appropriately referred.

Mr. President, I further ask unanimous consent that this bill be printed in the RECORD at the conclusion of my remarks.

There being no objection, the bill was ordered to be printed in the RECORD, as follows:

S. 1374

A bill to exempt from taxation certain property of the Daughters of the American Revolution in the District of Columbia

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) the property (more specifically described in subsection (b) of this section) situated in square numbered one hundred fifty-eight in the city of Washington, District of Columbia, namely, parts of original lots numbered twenty and twenty-one in square numbered one hundred and fifty-eight, known for purposes of assessment and taxation as lot numbered eight hundred and twenty-four in square numbered one hundred and fifty-eight, improved by premises 1732 Massachusetts Avenue, Northwest, city of Washington, District of Columbia, owned by the District of Columbia Daughters of the American Revolution, Inc., a District of Columbia nonprofit corporation, and occupied by the sixty chapters of the District of Columbia Society Daughters of the American Revolution, is hereby exempt from all taxes, so long as the same is so occupied and is not used for commercial purposes, subject to the provisions of sections 2, 3, and 5 of the Act entitled "An Act to define the real property exempt from taxation in the District of Columbia", approved December 24, 1942 (56 Stat. 1089; D.C. Code, secs. 47–801b, 47–801c, and 47–801e).

(b) The property referred to in subsection (a) of this section is more specifically described as follows:

"Beginning on Massachusetts Avenue at the northeasterly corner of lot numbered seventy-one in said square, as per plat recorded in the Office of the Surveyor for the District of Columbia in liber 33 at folio 195, and running thence southeasterly along the line of said avenue, 49.58 feet to the northwesterly corner of lot numbered sixty-five in said square, as per plat recorded in said Surveyor's Office in liber 27 at folio 72;

"thence southwesterly along the westerly line of said lot sixty-five, 135.60 feet;

"thence still with said line of said lot, south 4.84 feet to the northerly line of an alley;

"thence westerly along said alley, to the southeasterly corner of the aforesaid lot seventy-one;

"thence northeasterly along the easterly line of said lot, 153.45 feet to Massachusetts Avenue and the point of beginning".

SEC. 2. The provisions of this Act shall be applicable with respect to taxable years commencing on and after January 1, 1972.

By Mr. LONG (for himself, Mr. ANDERSON, Mr. BIBLE, Mr. BURDICK, Mr. BYRD of Virginia, Mr. GRAVEL, Mr. HANSEN, Mr. HOLLINGS, Mr. JORDAN of Idaho, Mr. ELLENDER, Mr. MCGEE, Mr. PASTORE, Mr. PEARSON, Mr. RANDOLPH, and Mr. RIBICOFF):

S. 1376. A bill to amend the Social Security Act to add a new title XX thereto which will provide insurance against the costs of catastrophic illness. Referred to the Committee on Finance.

CATASTROPHIC HEALTH INSURANCE

Mr. LONG. Mr. President, during the past weeks, a substantial number of Senators have sponsored bills designed to assist Americans with the heavy costs of health care. Certainly all Senators appreciate the need to undertake constructive legislative effort designed to provide a reasonable, responsible, and feasible answer to what is all too often an overwhelming problem for a broad cross section of American families. Health care costs are soaring and reaching levels which, in the event of serious or prolonged illness, entail expense beyond the point ordinary families can afford. The impact of the costs of serious illness is often catastrophic—removing or threatening the capacity of the family to continue independent living or resulting in a sharp downward change from their normal standard of living.

During the course of the Finance Committee's consideration of H.R. 17550, the Social Security Amendments of 1970, the committee approved by a vote of 13 to 2, an amendment I offered to establish a new program of catastrophic health insurance for people under 65. Unfortunately, the amendment was an innocent casualty of the legislative logjam we encountered at the end of the last Congress and the Senate never has had an opportunity to consider its merits. I am introducing that amendment today as a separate bill so it can be studied by those concerned with the most crying needs in our health care system. It is my hope that the merits of this legislation will be seen and that it will rally the support needed to insure its enactment this year as part of the social security-medicare legislation.

I believe the committee gave the amendment strong support last year not only in recognition of the need to provide protection against costly and bank-breaking illness but also because the proposal was within the realm of the possible.

The Committee on Finance did not want to establish at this time an enormous new program of health care which might further fan the flames of health cost inflation. We have certainly seen and learned enough about that in medicare and medicaid. But it did want to provide aid to those families unfortunate enough to be hit by a catastrophic illness. Thus, instead of leaving these people victim to financial ruin the bill I am introducing today would aid in the payment of hospital bills after the first 60 days. It would help pay doctor bills after the first $2,000. In most instances the bill would pay 80 percent of covered costs. And it would provide this new insurance protection to over 170 million people—about 95 percent of our total population under age 65.

Certainly there are those who can and will argue that the catastrophic health insurance amendment does not go far enough. I believe, and I think the committee also thought, that it went as far as we could go at this time—and it is a multibillion dollar program—without totally overwhelming a health care system that is already under enormous pressure and is unable to efficiently deliver all the care our people need. It might be that the program would require expansion at a later date—but the basic approach of my catastrophic health insurance amendment is one of taking a reasonable step forward—rather than biting off more than can be chewed.

Mr. President, I am introducing today a catastrophic health insurance bill identical with the measure approved in 1970 by the Committee on Finance. This measure is introduced in behalf of myself and Senators ANDERSON, BIBLE, BURDICK, BYRD of Virginia, ELLENDER, GRAVEL, HANSEN, HOLLINGS, JORDAN of North Carolina, MCGEE, PASTORE, PEARSON, RANDOLPH, and RIBICOFF.

I ask unanimous consent that an excerpt from the Finance Committee report on H.R. 17550 explaining the amendment be printed in the RECORD.

The PRESIDING OFFICER (Mr. BUCKLEY). Without objection, it is so ordered.

(See exhibit 1.)

Mr. LONG. Mr. President, it is my intention, as chairman of the Committee

on Finance, to call a hearing sometime within the next 2 weeks to commence exploring the various health-care proposals that have been introduced. They are several in number. The Committee on Finance, in its responsibility in handling medicare, medicaid, and revenue bills that would seek to finance and pay for health care, feels that it should hear what can be said in support of the various proposals and try to recommend to the Senate that which is most in the national interest.

We anticipate that sometime soon the administration's health-care recommendations will be introduced.

I am further on notice that the House, in all probability, will send us its own version of a health-care plan, perhaps entirely at variance with the administration's plan and all the other bills we have discussed to this point.

In any event, this matter must be acted upon in this Congress, and Congress must give an answer.

The Committee on Finance, having the responsibility in this area, expects to begin to explore this field during the next 2 weeks.

EXHIBIT 1

EXCERPT FROM S. REPT. 91-1431, REPORT OF THE COMMITTEE ON FINANCE TO ACCOMPANY H.R. 17550, THE SOCIAL SECURITY AMENDMENTS OF 1970

V. CATASTROPHIC HEALTH INSURANCE PROGRAM

The Committee on Finance is concerned about the devastating effect which a catastrophic illness can have on families unfortunate enough to be affected by such an illness. Over the past decades science and medicine have taken great strides in their ability to sustain and prolong life. Patients with kidney failure, which until recently would have been rapidly fatal, can now be maintained in relative good health for many years with the aid of dialysis and transplantation. Patients with spinal cord injuries and severe strokes can now often be restored to a level of functioning which would have been impossible years ago. Modern burn treatment centers can keep victims of severe burns alive and can offer the victim restorative surgery which can in many instances erase the after effects of such burns.

These are but a few examples of the impact which recent progress in science and medicine has had. This progress, however, has had another impact. These catastrophic illnesses and injuries which heretofore would have been rapidly fatal and hence not too expensive financially, now have an enormous impact on a family's finances. The newly developed methods of treating catastrophic illnesses and injuries involve long periods of hospitalization, often in special intensive care units, and the use of complex and highly expensive machines and devices. The net cost of a catastrophic illness or injury can be and usually is staggering. Hospital and medical expenses of many thousands of dollars can rapidly deplete the resources of nearly any family in America. These families are then faced not only with the devastating effect of the illness itself, but also with the necessity of accepting charity or welfare. Catastrophic illnesses do not strike often, but when they do the effects are disastrous—particularly in the context of soaring health care costs.

The Committee on Finance believes that Government and social insurance programs should be able to respond to the progress made in medical science. Medicine and science are now often able to mitigate the physical effects of a catastrophic illness or injury, and the committee believes that government, through our established social insurance mechanism should act to mitigate the financial effects of such catastrophes.

The committee has adopted an amendment which would establish a Catastrophic Health Insurance Program.

The program would be designed to complement private health insurance which has played the major role in insuring against basic health expenses. About 80 percent of people under age 65 have insurance against hospitalization expenses, but these policies all have a limit on hospital days which they will cover. The most common policies cover 60 days of care. Similarly, existing private policies designed to cover medical expenses have upper limits of coverage. Private major medical insurance plans are available, but are held by only 20 to 30 percent of the population. In addition, even the major medical plans have maximum benefits per spell of illness, usually ranging from $5,000 to $20,000.

The committee's Catastrophic Health Insurance Program would be structured to take maximum advantage of the experience gained by medicare. The program would use medicare's established administrative mechanism wherever possible, and would incorporate all of medicare's cost and utilization controls.

Eligibility

The committee amendment establishes a new Catastrophic Health Insurance Program (CHIP) as part of the Social Security Act financed by payroll contributions from employees, employers and the self-employed. Under the committee's provision all persons under 65 who are fully or currently insured under the social security program, their spouses and dependent children would also be eligible for CHIP. This constitutes about 95 percent of all persons under age 65.

Persons over 65 would not be covered as they are protected under the medicare program which, in spite of its limitation on hospital and extended-care days, is a program with a benefit structure adequate to meet the significant health care needs of all but a very small minority of aged beneficiaries. The largest noncovered groups under age 65 are Federal employees, employees covered by the Railroad Retirement Act, and State and local governmental employees who are eligible for social security but not covered due to the lack of an agreement with the State. (There are a small number of people who are still not covered by social security or other retirement programs; the majority of these are domestic or agricultural workers who have not met the necessary social security coverage requirements.)

Federal employees are, however, eligible for both basic and major medical catastrophic health insurance protection under the Federal Employees Health Benefits Act, with the Federal Government paying 40 percent of the costs of such coverage. To assure equitable treatment of those Federal employees who also are eligible for social security, a special provision of the committee bill would require the Federal Employee Health Benefits program to make available to Federal employees who have sufficient social security coverage to be eligible under CHIP, a plan which supplements CHIP coverage; if such a plan is not made available to Federal employees, no CHIP payments will be available for services otherwise payable under the FEHB plan.

Buy-in for State and local employees

Under the committee bill, State and local employees who are not covered by social security could receive coverage under CHIP if the State and local governments exercise an option to buy into the program to cover them on a group basis. When purchasing this protection, States would ordinarily be expected to include all employees and eligible annuitants under a single agreement with the Secretary. A determination by the State as to whether an individual is an annuitant or member of a retirement system or is otherwise eligible to have such coverage purchased on his behalf would, for purposes of the agreement to provide CHIP protection, be final and binding upon the Secretary. Each State which enters into an agreement with the Secretary of Health, Education, and Welfare to purchase CHIP protection will be required to reimburse the Federal Catastrophic Health Insurance Trust Fund for the payments made from the fund for the services furnished to those persons covered under CHIP through the State's agreement with the Secretary, plus the administrative expenses incurred by the Department of Health, Education, and Welfare in carrying out the agreement. Payments will be made from the fund to providers of services for covered services furnished to these persons on the same basis as for other persons entitled to benefits under CHIP. Conditions are also specified under which the Secretary or the State could, after due notice, terminate the agreement.

Benefits

The benefits that would be provided under CHIP would be the same as those currently provided under parts A and B of medicare, except that there would be no upper limitations on hospital days, extended care facility days, or home health visits. Present medicare coverage under part A includes 90 days of hospital care and 60 days of post-hospital extended care in a benefit period, plus an additional lifetime reserve of 60 hospital days; and 100 home health visits during the year following discharge from a hospital or extended care facility. Part B coverage includes physicians' services, 100 home health visits annually, outpatient physical therapy services, laboratory and X-ray services and other medical and health items and services such as durable medical equipment.

The major benefits excluded from medicare, and consequently excluded from this proposal, are nursing home care, prescription drugs, hearing aids, eyeglasses, false teeth and dental care. Medicare's limitations on inpatient care in psychiatric hospitals, which limit payment to active treatment subject to a 190 day lifetime maximum, and the program's annual limitation on outpatient services in connection with mental, psychoneurotic and personality disorders are also retained. An additional exclusion would be for items or services which the Secretary of Health, Education, and Welfare rules to be experimental in nature.

Deductibles and coinsurance

The committee believes that in keeping with the intent of this program to protect against health costs so severe that they usually have a catastrophic impact on a family's finances, a deductible of substantial size should be required. The committee's proposal has two entirely separate deductibles which would parallel the inpatient hospital deductible under part A and the $50 deductible under part B of medicare.

The separate deductibles are intended to enhance the mesh of the program with private insurance coverage. In order to receive both hospital and medical benefits, both deductibles must be met. If a person were to meet the hospital deductible alone, he would become eligible only for the hospital and extended care benefits. Similarly, if a family were to meet the $2,000 medical deductible, they would become eligible only for the medical benefits.

Hospital deductible and coinsurance

There would be a hospital deductible of 60 days hospitalization per year per individual.

After an individual has been hospitalized for a total of 60 days in one year, he would become eligible for payments toward hospital expenses associated with continued hospitalization. The program would thus begin payment with the 61st day of his hospitaliza-

tion in that year. Only those posthospital extended care services which he receives subsequent to having met the 60-day deductible would be eligible for payment.

After the hospital deductible has been met, the program would pay hospitals substantially as they are presently paid under medicare, with the individual being responsible for a coinsurance amount equal to one-fourth of the medicare inpatient hospital deductible applicable at that time. Extended care services which are eligible for payment would be subject to a daily coinsurance amount equal to one-eighth of the medicare inpatient hospital deductible. In January 1971, this coinsurance will amount to $15 a day for inpatient hospital services and $7.50 a day for extended care services.) Thus the coinsurance could rise yearly in proportion to any increase in hospital costs.

Medical deductible and coinsurance

There would be a supplemental medical deductible initially established at $2,000 per year per family. The Secretary of Health, Education, and Welfare would, between July 1 and October 1 of each year (beginning in 1972), determine and announce the amount of the supplemental medical deductible for the following year.

The deductible would be the greater of $2,000 or $2,000 multiplied by the ratio of the physicians' services component of the Consumer Price Index for June of that year to the level of that component for December 1971. Thus, the deductible could rise yearly in proportion to any increase in the price of physicians' services.

After a family has incurred expenses of $2,000 for physicians' bills, home health visits, physical therapy services, laboratory, and X-ray services and other covered medical and health services the family would become eligible for payment under the program toward these expenses. For purposes of determining the deductible, a family would be defined as a husband and wife and all minor and dependent children.

After the medical deductible had been met, the program would pay for 80 percent of eligible medical expenses, with the patient being responsible for coinsurance of 20 percent.

Deductible carryover

As in part B of medicare, the plan would have a deductible carryover feature—applicable to both the dollar deductible and the hospital-day deductible—under which expenses incurred (or hospital days used) but not reimbursed during the last calendar quarter of a year would also count toward the satisfaction of the deductibles for the ensuing year. For example, an individual admitted to a hospital with a cardiac condition on December 10, 1972, and continuously hospitalized through February 19, 1973, would not, in the absence of the carry-over provision, meet the hospital-day deductible unless he were to be hospitalized for at least another 10 days in 1973. With a carryover provision, however, the individual described above would meet the hospital deductible on January 30, 1973. Similarly, if a family's first eligible medical expenses in 1972 amount to $1,200 and were incurred during the months of November and December, and an additional $3,000 in eligible medical expenses are incurred in 1973, the family would, in the absence of a carryover provision, be eligible for payment towards only $1,000 of their expenses in 1973. With a carryover provision, however, the family described above would be eligible for payment toward $2,200 of their expenses in 1973.

Administration

Payments made to patients, providers, and practitioners under this program would be subject to the same reimbursement, quality, health and safety standards, and utilization controls as exist in the medicare program. Reimbursement controls would include the payment of audited "reasonable costs" to participating institutions and agencies, and "reasonable charges" to practitioners and other suppliers. However, the committee expects that appropriate modifications will be made to take into account the special features of this program, including a modification to exclude "bad debts" from those costs eligible in computing reasonable cost payments to institutions.

The utilization of services would be subject to review by present utilization review committees established in hospitals and extended care facilities and by the professional standards review organizations established under another committee amendment. The committee believes that all of the above controls should be applied to reimbursement of expenses for services rendered under the proposed catastrophic illness insurance program. In addition, the Office of the Inspector General for Health Administration established under another committee amendment would be expected to closely monitor the administration of the program and can be expected to provide valuable information with respect to increasing the efficiency of the program.

The proposal contemplates using the same administrative mechanisms used for the administration of medicare including, where appropriate, medicare's carriers and intermediaries. Using the same administrative mechanisms as medicare will greatly facilitate the operation of this program. The proposal also would encompass use of medicare's statutory quality standards, in that the same conditions of participation which apply to institutions participating in medicare would apply to those institutions participating in CHIP. These standards serve to upgrade the quality of medical care and their application under this program should have a similar salutary effect.

The Social Security Administration, utilizing its network of district offices, would determine the insured status of individuals and relationships within families which are necessary to establish entitlement to CHIP benefits. The determination of whether the deductible expenses had been met would also be handled by the Social Security Administration in cooperation with carriers and intermediaries. The proposed administrative plan envisions establishing a $2,000 minimum expense amount before individual bills would be accepted. This would protect the administrative agencies from being inundated with paperwork.

Financing

The first year's cost of the program is estimated at $2.5 billion on an incurred basis and $2.2 billion on a cash basis. The committee provision would finance the program on a $9,000 wage base with the following contribution schedule: 1972–74, 0.3 of one percent of taxable payroll on employees and 0.3 on employers; 1975–79, 0.35; 1980 and after, 0.4. Rates for the self-employed would also be 0.3, 0.35, and 0.4 respectively.

The contributions would be placed in a separate Federal Catastrophic Health Insurance Trust Fund from which benefits and administrative expenses related to this program would be paid. The complete separation of catastrophic health insurance financing and benefit payments is intended to assure that the catastrophic health insurance program will in no way impinge upon the financial soundness of the retirement, survivors, or disability insurance trust funds or medicare's hospital and supplementary medical insurance trust funds. Such separation will also focus public and congressional attention closely on the cost and the adequacy of the financing of the program.

To provide an operating fund at the beginning of the program (in recognition of the lag in time between the date on which the taxes are payable and their collection), and to establish a contingency reserve, a Government appropriation would be available (on a repayable basis without interest) during the first 3 calendar years of the program. The amount which could be drawn in any such calendar year could not exceed the estimated amount of 6 months of benefit payments during that year.

Relationship with medicaid

The catastrophic illness insurance program would be supplemental to the medicaid program with regard to public assistance recipients and the medically indigent in the same way in which it will be supplemental to private insurance for other citizens. Thus, medicaid will continue to be the State-Federal program that is intended to cover the basic health needs of categorical assistance recipients and the medically indigent. The benefit structure of medicaid varies from State to State, but in general it is a basic rather than a catastrophic benefit package.

In addition, medicaid will continue to play a substantial role in financing the cost of nursing home care, which represents a catastrophic cost to many people, especially the aged. The catastrophic health insurance program will, of course, lessen the burden on the medicaid program to some degree, since those covered by medicaid who are eligible would have a large proportion of their catastrophic expenses covered by this program, leaving only the deductible and coinsurance amounts for the medicaid program to pay. This factor will not only enable the States to contain the costs of their programs, but may also encourage them to improve coverage of basic services.

Conclusion

The committee estimates that more than one million families of the approximately 49 million families in the United States annually incur medical expenses which will qualify them to receive benefits under the program. Of course, nearly all American families will receive the benefit of insurance protection against the costs of catastrophic illnesses. The program is not intended to meet the health costs which the population incurs for short-term hospitalization and acute illness. This program is intended to insure against those highly expensive illnesses or conditions which, although a potential threat to every family, actually strike only a relatively few. The committee believes that individuals should, during their working years, be able to obtain protection against the devastating and demoralizing effects of such costs.

These provisions and the taxes to pay for them would become effective January 1, 1972.

By Mr. MATHIAS:

S. 1377. A bill to reduce pollution which is caused by litter composed of soft drink and beer containers, and to eliminate the threat to the Nation's health, safety, and welfare which is caused by such litter by banning such containers when they are sold in interstate commerce on a no-deposit, no-return basis. Referred to the Committee on Commerce.

Mr. MATHIAS. Mr. President, I am pleased to introduce a bill aimed at banning the sale of nonreturnable bottles and cans. I do so at the request of 150 pollution-minded social studies students at Parkville High School in Baltimore County, Md.

Meeting with elected representatives of these students last week in Baltimore, I was presented with a list of nearly 200 Baltimore area businessmen whom they had contacted and found in favor of the measure.

The bill would ban the shipment and sale of nonreturnable beverage containers in interstate commerce. It provides for penalties of $1,000 maximum fine or imprisonment for up to 6 months, or both.

Authority to administer the law would be given the Administrator of the Environmental Protection Agency.

Involvement of the Parkville High School students, all seniors, is part of an attempt by Ralph Jaffe, a teacher at the school, to relate textbook political science to real world experience. The 150 students voted to select the ban-the-can issue from among the many others they proposed and debated.

For their enthusiasm and concern, for their enlightened efforts to work within the system, these students are to be congratulated. So, too, is Mr. Jaffe for his innovative way of bringing his students into contact with the living arena of politics.

I look forward to witnessing the mobilization campaign these students assure me will follow. A similar measure died in the House last year and, only recently, much the same proposal was decisively rejected by the Maryland Legislature.

On the local level in Maryland, however, both Howard County and the city of Bowie have enacted ordinances to ban the sale of nonreturnables.

Two years ago, Mr. President, I was pleased to sponsor a bill drafted by Mr. Jaffe's ninth-grade classes at Ridgely Junior High School creating a "National Youth-Adult Education Week." Aimed at bridging the generation gap, this bill was passed by both Houses of Congress and signed into law by President Nixon.

By Mr. BAYH:

S. 1378. A bill to provide implementation of the Federal Trade Commission Act, to give increased protection to consumers, and for other purposes. Referred to the Committee on Commerce.

Mr. BAYH. Mr. President, in the past few years we have seen a growing recognition of the urgent need to improve our laws dealing with consumer protection. As I believe every Member of this body knows, most aggrieved consumers today simply have no recourse against unscrupulous businessmen. While in most States there are reasonably comprehensive laws prohibiting fraudulent and deceptive practices in the marketplace, the only way to enforce these rights is by going to court. And, few, if any, consumers can afford the luxury of going to court, thereby incurring burdensome legal expenses, when the dispute centers around a $20 item.

The consumer class action is the answer to this problem. The class action allows defrauded consumers to band together in one suit—thus saving on legal fees and making more efficient use of court time—in order to litigate similar claims against one defendant.

Last year I strongly supported S. 3201, the consumer class action bill developed through the untiring efforts of Senators MAGNUSON and HART, together with a majority of the other members of the Commerce Committee. I supported that bill because I believed that it was an effective—and at the same time realistic and equitable—solution to a very difficult problem. And I was pleased to be able to join Senators MAGNUSON and HART again this year when the bill—S. 984—was reintroduced in the 92d Congress.

I continue to be a supporter of S. 984, but, as Senator MAGNUSON pointed out on the Senate floor earlier this year:

> While we believe the Consumer Class Action Act serves the task very well, we are not inflexibly committed to its language. There may well be modifications of the bill that would improve its effect. We will welcome suggestions for such modifications.

It is in the hopes of making some constructive suggestions that I am announcing today the introduction of another consumer class action measure. This is the same bill as was introduced by Congressman BOB ECKHARDT—a longtime crusader for consumer rights—in the other body earlier this month.

I believe that the bill I am introducing today is a good bill and that it deserves our most serious consideration. This measure would provide every consumer with a truly effective class action remedy, in both State and Federal courts. And it is written with the needs of our overburdened courts, and of all legitimate businessmen, in mind. As Congressman ECKHARDT pointed out at the time of introduction, special attention has been paid to discouraging nuisance suits, and to making sure that the courts do not become overloaded.

Mr. President, last year we came close to success. This year I hope that we will finally see action in this area, that we will finally give to the consumers of America an effective remedy against fraudulent and deceptive trade practices.

I ask unanimous consent to have the text of the bill printed in the RECORD at the conclusion of my remarks.

There being no objection, the bill was ordered to be printed in the RECORD, as follows:

S. 1378

A bill to provide implementation of the Federal Trade Commission Act, to give increased protection to consumers, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Consumer Class Action Act of 1971".

SEC. 2. Findings and Purpose. The Congress finds that there is a Federal interest in curbing unfair and deceptive practices which affect commerce. Congress finds that it promotes the free flow of goods in commerce and promotes the public welfare to provide an adequate process for class actions on behalf of similarly situated consumers.

SEC. 3. Definitions. As used in this title—

(a) "Unfair consumer practice" means any of the following:

(1) any material statement, whether oral, written, or by visual description or other representation of any kind, or by half-truth or intentional omission, in connection with the sale, lease, rental or loan or the offering for sale, lease, rental, or loan of goods or services to consumers, or the extension of credit to consumers, or the collection of debts from consumers, which has the capacity, tendency or effect of misleading or deceiving consumers.

Such statements include, but are not limited to:

(A) offering goods or services intending not to sell them as offered;

(B) advertising goods or services intending not to supply reasonably expectable public demand, unless the advertisement accurately discloses the limitation;

(C) making misleading statements concerning the need for any goods, services, or repairs;

(D) making misleading statements concerning the rights, obligations, liabilities, privileges or remedies of the consumer;

(E) representing that goods are new when they are not;

(F) representing that goods are of a particular standard, grade, quality, style, or model when they are not;

(G) making misleading statements concerning the reasons for, existence of, or amounts of price reductions or comparative price or value;

(H) representing that goods or services are those of another, when they are not;

(I) representing that goods or services have sponsorship, approval, origin, characteristics of safety, performance or non-pollution, ingredients, uses, benefits, or quantities that they do not have, or that a person has a sponsorship, approval, status, affiliation or connection that he does not have;

(J) taking consideration for goods or services without delivering the goods, performing the services or refunding the consideration within a reasonable period of time;

(K) making misleading statements concerning the profitability, risk, or any other material respect of any business opportunity or venture, or preparation or course of study for same, intended to be embarked upon by a natural person

(L) offering gifts, prizes, free items or other gratuities without providing them as offered;

(M) making misleading statements concerning the existence, terms or probability of any rebate, additional goods or services, commission or discount offered as an inducement for the sale of goods or services to a consumer in return for giving the supplier the names of prospective consumers or otherwise helping the offerer to enter into any other consumer transaction;

(N) threatening that a creditor will take action that he does not actually take in the regular course of business;

(2) the use or threat of physical force against consumers or the undue harassment or coercion of consumers;

(3) failure to return deposits or advance payments for goods not delivered or services not rendered, when no default or further obligation of persons making such deposits or advance payments exists

(4) violations which give rise to civil liability under state statutory or decisional law for the benefit of consumers

(5) any other action prohibited by rule of the Federal Trade Commission, in accordance with the provisions of section 6(g) of the Federal Trade Commission Act (15 USC 46(g)), as amended, provided that such rule:

(A) became effective prior to the time of the action complained of, and

(B) was expressly designated by the Federal Trade Commission as a rule intended to constitute the basis of civil liability under this Act.

(b) "intentional", and "intending" refer to actual intent, intent presumed where objective circumstances indicate that the person acted with intent, or intent presumed where circumstances indicate that the supplier acted in disregard of reasonable safeguards or care;

(c) "consumer" means any natural person who is offered or supplied goods or services for personal, family, or household pur-

poses, or who is offered a personal business or money-making opportunity;

(d) "goods" includes real property but does not include securities or interests in securities or aircraft to the extent regulated in design or construction;

(e) "services" includes insurance services.

SEC. 4. It shall be unlawful for a person to commit any unfair consumer practice as defined in this Act if

(a) his business affects commerce; or

(b) the violation or violations affect commerce.

SEC. 5. The district courts of the United States shall have original jurisdiction of civil class actions brought by a consumer or group of consumers under this Act on behalf of himself or themselves and all consumers similarly situated. The jurisdiction of district courts of the United States under this section shall be concurrent with that of the courts of the several States. If an action under this Act is brought in a court of a State, the provisions of rule 23 of the Federal Rules of Civil Procedure shall apply to such action to the same extent that such provisions apply in the case of an action brought in a united states district court.

SEC. 6. (a) In order for an action to be entertained under this Act, the court must find that the action is of such nature as to be entertainable under rule 23 of the Federal Rules of Civil Procedure.

(b) If the court finds that the case is entertainable under rule 23 of the Federal Rules of Civil Procedure, it may nevertheless decide, in its discretion, whether or not the controversy should be entertained or dismissed without prejudice to refiling the same in a court of competent jurisdiction of the State. In so determining the court shall consider—

(1) the nature and importance of the case;

(2) the condition of its docket and the likelihood that the matter would unduly delay other cases;

(3) the multidistrict or multistate nature of the matter; and

(4) the relative procedural advantages of trying the case in the Federal or in the State court.

(c) In order for an action to be entertained under this Act in a district court of the United States the court shall make a determination of whether or not the amount which can reasonably be expected to be the amount in controversy exceeds $25,000. If such amount cannot reasonably be expected to exceed $25,000, then the court shall not entertain the action. For the purposes of this paragraph, the aggregate claims for all members of the class shall be taken into account to make up such requisite amount, and, if injunctive relief is sought and may reasonably be expected to be appropriate, the court shall consider the probable damages to the class if injunctive relief were not granted as an item in making up such requisite amount.

SEC. 7. No person shall be a member of a class in an action under this Act unless the amount of his loss or claim exceeds ten dollars.

SEC. 8. In any action under this Act, the court shall only award

(a) injunctive and declaratory relief;

(b) restitution and actual damages;

(c) relief or penalties specifically provided for under any statute giving rise to a right within the jurisdiction of the court in a case arising under this Act; and

(d) costs of court as provided in section 14; and in no event shall award damages for personal injury or exemplary damages.

SEC. 9. In an action in a United States District Court under this Act based upon violations of State law, the law of the States shall be applied as if jurisdiction were based upon diversity of citizenship.

SEC. 10. Section 1441 of title 28, United States Code, shall not apply with respect to any action of which the district courts have jurisdiction solely by reason of the fact that the act complained of is alleged to be a violation of State statutory or decisional law for the benefit of consumers.

SEC. 11. At least thirty-five days prior to instituting an action under this Act, the prospective plaintiff or plaintiffs shall mail notice to the prospective defendant or defendants informing them, in general terms, of the nature of the alleged unfair consumer practice or practices. No action for monetary relief may be maintained if, within thirty days after the mailing of the notice, the prospective defendant or defendants;

(a) identify from business records all consumers similarly situated and notify them that appropriate refunds, credits, adjustments, replacements, or repairs will be made within thirty additional days; provided that where sales, leases, rentals or loans were effected through misleading statements, the defendants must notify the affected consumers that their money will be refunded upon their tender of the merchandise or any unused portion of the services, and where consumer debts were collected through misleading statements, the defendants must notify the affected consumers that the money will be refunded upon request; and

(b) cease the alleged unfair consumer practice or practices. Evidence of compliance or attempted compliance with this section shall not be construed as an admission of engaging in an unlawful practice.

SEC. 12. Actions pursuant to this Act shall be administered, so far as feasible within the discretion of the court, to avoid a multiplicity of suits, to avoid duplicating or overlapping class actions, and to avoid expenses of litigation which unduly repress obtaining justice under the Act. Such administration shall include, but shall not be limited to, assessing the costs of any required notice of the action as justice requires and providing for the use of facilities of the court, including mailing privileges, in such manner as justice requires.

SEC. 13. Actions pursuant to this section for redress of consumer injury shall be administered, so far as practicable, to facilitate voluntary settlements. The court shall have authority, upon the tender of a reasonable settlement offer by the defendant or defendants to the entire class, to supervise the submission of such settlement offer to the class. The court may take reasonable steps to insure that the consumers in the class are afforded, so far as feasible as determined by the court, the opportunity to exercise an individual choice with respect to accepting or rejecting any settlement offer. The court shall insure that equal space for the presentation of views as to the merits of the offer shall be tendered to plaintiffs and defendants in the notice of the offer to the members of the class. The cost of communicating the offer, or subsequent offers, tendered under the provisions of this section to the members of the class, shall be borne by the defendants. Such settlement offers shall be completed as expeditiously as possible.

SEC. 14. Whenever a consumer shall prevail in an action brought pursuant to this section, he shall be allowed to recover, in addition to damages, the costs of suit, including attorneys' fees. Such costs may be awarded from money damages which the defendant owes to members of the class who cannot be located with due diligence. Upon termination of a class action under this Act, whether by judgment, settlement or compromise, the court shall inquire into the reasonableness of attorneys' fees charged and revise such fees where necessary to assure that they are reasonable, taking into consideration, among other factors, the contingency of success, the actual time spent by attorneys in preparation and prosecution of the action, the difficulty of the case, the experience of plaintiffs' counsel, the amount recovered in the action, and the benefits to the public of the litigation.

SEC. 15. An action to enforce any claim under this section shall be forever barred unless commenced within three years after the claim arose, except that in the case of an action dismissed without prejudice to be filed in a State court under Section 9 this limitation shall be tolled between the time that the action is commenced in federal court and one month after the federal court dismisses the action without prejudice to refiling.

SEC. 16. An action under this title may be brought in any district in which the claim arose or in which the defendant resides, is found, has an agent, is licensed to do business, or is doing business.

SEC. 17. This Act shall not annul, alter, or affect in any manner the meaning, scope, or applicability of any Federal or State law except as specifically provided herein (as, for instance, in the case of application of Federal Rule 23 in cases brought upon a claim under this Act in State court), including but not limited to laws concerning the provision of goods and services to consumers and Public Law 91-222 (84 Stat. 87), or limit in any way the availability of rights or remedies under such law.

SEC. 18. If any provision of this Act is declared unconstitutional, or the applicability thereof to any person or circumstance is held invalid, the constitutionality of the remainder of the Act and the applicability thereof to other persons and circumstances shall not be affected thereby.

By Mr. BENTSEN:

S.J. Res. 74. A joint resolution to authorize and request the President to proclaim the week of June 20, 1971, through June 26, 1971, as "National Royal Ranger Week." Referred to the Committee on the Judiciary.

NATIONAL ROYAL RANGER WEEK

Mr. BENTSEN. Mr. President, I introduce today a joint resolution to authorize and request the President of the United States to proclaim the week of June 20 through June 26, 1971, as "National Royal Ranger Week."

The Royal Rangers is a camping program for boys age 7 to 17, sponsored by the Men's Fellowship Department of the Assemblies of God. The Royal Rangers do an outstanding job promoting good citizenship and worthwhile community service projects for over 100,000 boys each year.

Mr. President, this joint resolution affords this Congress the opportunity to recognize the profound and wholesome influence of the Royal Rangers on our young people. I am pleased to offer this joint resolution in the Senate, just as my distinguished colleague, Representative BOB CASEY, has introduced it in the House, and I urge quick and favorable consideration.

By Mr. MONDALE (for himself and Mr. BAYH, Mr. BROOKE, Mr. CASE, Mr. FONG, Mr. HARRIS, Mr. HART, Mr. HUGHES, Mr. HUMPHREY, Mr. JAVITS, Mr. KENNEDY, Mr. MCGEE, Mr. MCGOVERN, Mr. MOSS, Mr. NELSON, Mr. PELL, Mr. RANDOLPH, and Mr. SCHWEIKER):

S.J. Res. 75. A joint resolution to provide for a study and evaluation of the ethical, social, and legal implications of

advances in biomedical research and technology. Referred to the Committee on Labor and Public Welfare.

HEALTH SCIENCE AND SOCIETY

Mr. MONDALE. Mr. President, I introduce for myself and Senators BAYH, BROOKE, CASE, FONG, HARRIS, HART, HUGHES, HUMPHREY, JAVITS, KENNEDY, MCGEE, MCGOVERN, MOSS, NELSON, PELL, RANDOLPH, SCHWEIKER for appropriate reference a joint resolution to create a National Advisory Commission on Health Science and Society.

Recent advances in biology and medicine make it increasingly clear that we are rapidly acquiring greater powers to modify and perhaps control the capacities and activities of men by direct intervention into and manipulation of their bodies and minds. Certain means are already in use or at hand—for example, organ transplantation, prenatal diagnosis of genetic defects, electrical stimulation of the brain. Others await the solution of relatively minor technical problems, while still others depend upon further basic research. All of these developments raise profound and difficult questions of theory and practice, for individuals and for society.

To consider and study the ethical, social, and legal implications of advances in biomedical science and technology, I propose in this measure the creation of a 15-member commission on Health Science and Society. This commission would also report on the public policy implications of its findings in interim reports and in a final report at the end of its 2-year study.

Mr. President, 3 years ago I introduced a joint resolution which was essentially the same as the one I am introducing today. At that time, heart transplants were a startling new medical breakthrough. Since then, several hundred heart transplants have been performed. When I reintroduced the resolution in the last Congress, the first successful test-tube fertilization of a human egg had just been reported. Now, just 2 months ago, Nobel Prize winner Dr. James D. Watson told the House Committee on Science and Astronautics that we will soon see the day when a baby will be conceived in a test tube and placed in a woman who will bear the child. As you may recall, Dr. Watson's reported prediction was that when such an implantation is successfully made, "All hell will break loose."

These brief comments indicate that the need for a sober and thoughtful analysis and evaluation of biomedical advance is even more urgent now than it was 3 years ago when I first proposed this commission.

The past 3 years have seen great advances in genetics. There have been major increases in the ability to detect genetic diseases, even in fetuses still unborn. By examining fetal cells present in fluid obtained from the wombs of pregnant women, diagnosis of diseases such as Mongolism are now being made. As treatment for most genetic diseases is not now available, the diagnosis is generally followed by abortion of the affected fetus.

But major steps have been taken toward developing a technology of genetic engineering which might eventually be able to provide a cure for diseases such as hemophilia, cystic fibrosis, or diabetes. Single bacterial genes have been recently obtained in pure form, both by isolation from biological material and by chemical synthesis from simple building blocks. And just 2 weeks ago, the Washington Post reported that British scientists had artificially corrected a genetic defect in mouse cells by inserting some healthy genetic material from chick embryos.

But these welcome prospects are accompanied by others which are frankly disturbing. In other areas of genetic research, work has progressed which may soon make possible the asexual production of large numbers of identical humans, by a technique known as cloning. Work is also in progress to make possible the predetermination of the sex of unborn children.

Research into the nervous system and behavior proceeds at an accelerated pace. The use of amphetamines on school children to treat the socalled "hyperactive syndrome," recently the subject of public concern and controversy, is only a foretaste of things to come as the science of psychopharmacology becomes more sophisticated. New drugs offer possibilities both for novel therapies and for novel abuses. There has also been increasing experimentation with electrical stimulation and with selective destruction of certain areas of the human brain, in order to achieve desired behavioral changes.

In the area of clinical medicine, there has been considerable effort to resolve existing confusion concerning the definition of clinical death. This confusion is due to the fact that, thanks to medical progress, the traditional signs of life—heartbeat and respiration—can now be maintained almost entirely by machines. Since many human matters depend upon the distinction between a man alive and a man dead, the importance of resolving this dilemma cannot be overemphasized.

There is great ferment now in cancer research, and we may be nearing the day when men may live out their lives without fear of this dread disease. And while on the subject of longevity, we should not neglect the claims of some scientists that the time is now ripe for an attack on the biological processes of aging. If this attack is successful, the result could be many added years of healthy life for all.

While holding forth the promise of continued improvements in medicine's abilities to cure disease and alleviate suffering, these developments also pose profound questions and troublesome problems. There are questions about who shall benefit from and who shall pay for the use of new technologies. Shall a person be denied life simply because he does not have enough money for an organ transplant?

There will be questions about the use and abuse of power. When and under what circumstances can organs be removed for transplanting? Who should decide how long a person is to be kept alive by the use of a machine? Exactly what constitutes informed consent for a prospective transplant donor or recipient? The extent to which the consent is informed and voluntary may very well depend not only on what is said, but how it is said.

There will be questions about our duties to future generations and about the limits on what we can and can not do to the unborn. Is it ethical for a man and wife, each carrying a gene for a serious hereditary disease, to procreate, knowing that their children have a significant chance of acquiring the disease? Should the law enjoin certain marriages or require sterilization for such eugenic consideration? What rights do unborn children have to protect them in experiments involving genetic engineering or test tube fertilization? In a letter to the Washington Post, Dr. Leon Kass, executive secretary of the Committee on the Life Sciences and Social Policy of the National Researh Council, warned:

> One must not forget that there is a human being (the child-to-be) upon whom these experiments are to be performed and who may suffer for our zeal and ignorance, an ignorance no more excusable because well-meaning.

We shall face questions concerning the desirable limits of the voluntary manipulations of our own bodies and minds. Some have expressed concern over the possible dehumanizing consequences of increasing the laboratory control over human procreation or of the increasing use and abuse of drugs which alter states of consciousness.

We shall face questions about the impact of biomedical technology on our social institutions. What will be the effect of genetic manipulation or laboratory-based reproduction on the human family? If laboratory fertilization can produce children for sterile couples, what will be the consequences for those orphaned or abandoned children who might otherwise have been adopted by these couples? What will be the effect on the generation gap of any further increases in longevity?

We shall face serious questions of law and legal institutions. What will the predicted new-fangled modes of reproduction do to the laws of paternity and inheritance? What would happen to the concept of legal responsibility if certain genetic diseases were shown to predispose to antisocial or criminal behavior? What would be done to those individuals with such traits?

We should expect that some people will try to have certain particularly frightening technologies banned by statute. Should this be done? Could such prohibition be effective?

Finally, we as legislators will face problems of public policy. We shall need to be informed of coming developments, of the promises they hold forth and the problems they present, and of public attitudes in these matters. We shall need to decide what avenues of research hold out the most promise for human progress. And we shall need to help devise the means for preventing undesirable consequences.

Mr. President, as serious and as vex-

ing as these practical questions may be, there is yet another matter perhaps more profound. The biomedical technologies work directly on man's biological nature, including those aspects long regarded most distinctively human. Thus, we should expect major challenges to our traditional image of man as this technology unfolds. The impact on our ideas of free will, birth, and death, and the good life is likely to be even more staggering than any actual manipulation performed with the new technologies. These are matters of great moment, and we urgently need to take counsel from some of our best minds. I trust that the Congress will recognize this need by establishing this commission.

The questions raised require the competence of persons with different training and background. Accordingly, I propose that the commission include individuals drawn from the fields of medicine, law, theology, biological science, physical science, social science, philosophy, humanities, health administration, Government, and public affairs. The physician and the philosopher, the scientist and the theologian need to get together and to educate each other. We have much to gain from their collective learning. The commission I propose will provide the vehicle for this much needed exchange.

There is also a need for improved communication between laymen and scientists. The layman needs to learn more about the prospects and implications of expected developments. The scientist needs to acquire a broader understanding of the possible ramifications of his work and the concerns of the people it will affect. The Commission I propose will provide a vehicle for such communication.

Mr. President, we can ill afford to wait until the crush of events forces us to make hasty and often ill-considered decisions. We cannot again allow events to pass us by. We face an increasing number of new and far-reaching technological possibilities, touching the very nature of man. We face the need for some wise, deliberate, and sober decisions. These questions are not going to go away or answer themselves. They will become progressively more difficult as time goes on. As Dr. Watson said in his testimony:

> If we do not think about the matter now, the possibility of our having a free choice will one day suddenly be gone.

It would be foolish to expect the Commission to provide answers to all the questions we face, but we can expect that it will provide help in making some of our difficult decisions. The findings and considered judgments of excellent minds with a wide range of experience and training will be invaluable to individuals who must struggle with the awesome responsibility of coping with these new technologies.

We make no prejudgments. We do not call for controls. We ask only for a thorough and thoughtful consideration of every aspect of these complex, difficult, and profound questions and problems. I and the Senators who join with me in sponsoring this resolution sincerely hope that Congress will act with dispatch in creating this much needed Commission.

Mr. President, I ask unanimous consent that the text of the joint resolution, together with a number of articles, letters and statements bearing on these profound problems, be printed in the RECORD.

There being no objection, the joint resolution and material were ordered to be printed in the RECORD, as follows:

S.J. RES. 75

Joint resolution to provide for a study and evaluation of the ethical, social and legal implications of advances in biomedical research and technology

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That this joint resolution may be cited as the "National Advisory Commission on Health Science and Society Resolution."

ESTABLISHMENT OF COMMISSION

SEC. 2. There is hereby established a National Advisory Commission on Health Science and Society (hereinafter referred to as the "Commission.")

MEMBERSHIP

SEC. 3. (a) The Commission shall be composed of fifteen members to be appointed by the President from among the fields of medicine, law, theology, biological science, physical science, social science, philosophy, humanities, health administration, government, and public affairs.

(b) Any vacancy in the Commission shall not affect its powers.

(c) The President shall designate one of the members to serve as Chairman and one to serve as Vice Chairman of the Commission.

(d) Eight members of the Commission shall constitute a quorum.

DUTIES OF THE COMMISSION

SEC. 4. (a) The Commission shall undertake a comprehensive investigation and study of the ethical, social, and legal implications of advances in biomedical research and technology, which shall include, without being limited to—

(1) analysis and evaluation of scientific and technological advances in the biomedical sciences, current and projected;

(2) analysis and evaluation of the implications of such advances, both for individuals and for society;

(3) analysis and evaluation, through the use of seminars and public hearings and other appropriate means, of public understanding of and attitudes toward such implications;

(4) analysis and evaluation of implications for public policy of such findings as are made with respect to the biomedical advances and public attitudes.

(b) The Commission shall make maximum feasible use of related investigations and studies conducted by public and private agents.

(c) The Commission shall transmit to the President and to the Congress one or more interim reports and, not later than two years after the first meeting of the Commission, one final report, containing detailed statements of the findings and conclusions of the Commission, together with its recommendations, including such recommendations for action by public and private bodies and individuals as it deems advisable.

POWERS OF THE COMMISSION

SEC. 5. (a) The Commission or, in the authorization of the Commission, any subcoommittee or members thereof, may, for the purpose of carrying out the provisions of this joint resolution, hold such hearings, take such testimony, and sit and act at such times and places as the Commission deems advisable. Any member authorized by the Commission may administer oaths or affirmations to witnesses appearing before the Commission or any subcommittee or members thereof.

(b) Each department, agency, and instrumentality of the executive branch of the Government, including independent agencies, is authorized and directed, to the extent permitted by law, to furnish to the Commission, upon request made by the Chairman or Vice Chairman, such information as the Commission deems necessary to carry out its functions under this joint resolution.

(c) Subject to such rules and regulations as may be adopted by the Commission, the Chairman shall have the power to—

(1) appoint and fix the compensation of an executive director, and such additional staff personnel as he deems necessary, without regard to the provisions of title 5, United States Code, governing appointments in the competitive service, and without regard to the provisions of chapter 51 and subchapter III of chapter 53 of such title relating to classification and General Schedule pay rate, but at rates not in excess of the maximum rate for GS–18 of the General Schedule under section 5332 of such title, and

(2) procure temporary and intermittent services to the same extent as is authorized by section 3109 of title 5, United States Code, but at rates not to exceed $100 a day for individuals.

(d) The Commission is authorized to enter into contracts with Federal or State agencies, private firms, institutions, and individuals for the conduct of research or surveys, the preparation of reports, and other activities necessary to the discharge of its duties.

COMPENSATION OF MEMBERS

SEC. 6. Members of the Commission shall receive compensation at the rate of $175 per day for each day they are engaged in the performance of their duties as members of the Commission and shall be entitled to reimbursement for travel, subsistence, and other necessary expenses incurred by them in the performance of their duties as members of the Commission.

APPROPRIATIONS AUTHORIZED

SEC. 7. There is hereby authorized to be appropriated the sum of $1,000,000 for the fiscal year beginning July 1, 1971; and $1,000,000 for the fiscal year beginning July 1, 1972.

TERMINATION

SEC. 8. On the ninetieth day after the date of submission of its final report to the President and to the Congress, the Commission shall cease to exist.

[From the New York Times, Sept. 15, 1970]

CHIMP'S BRAIN SIGNALS ITSELF BY COMPUTER

(By Robert Reinhold)

NEW HAVEN, Sept. 14.—Direct two-way radio communication between an animal's brain and a computer has been established for the first time by a team of scientists at Yale University. It was used to enable the brain to control artificially one of its own functions.

In an experiment, electrodes implanted in a chimpanzee's brain picked up electrical brain waves, which were then transmitted to a computer by a small receiver-transmitter atop the animal's head.

The computer, programed to recognize special characteristics of the wave, returned a control signal to another part of the brain through the receiver.

Stimulated by the control signal, the latter part of the brain internally turned off the brain activity originally sensed by the computer.

While the exchange is of the most rudimentary sort, the feat is said by the Yale team to suggest promising new ways of

treating mental and physical disorders in human beings. Moreover, it raises the prospect of establishing direct electronic communication from one brain to another.

The head of the team is Dr. José M. R. Delgado, a 55-year-old Spanish-born neurophysiologist at the School of Medicine. Dr. Delgado, a pioneer in this field, has attracted both attention and controversy in the past for his experiments inducing anger, fear, affection, pleasure and other emotions in animals and human beings by telemetry stimulation of specific regions of the brain.

The new work represents the first time that a two-way radio network has been devised, in which the brain itself determines the outside signals it receives without using the senses as intermediaries to convey information to the brain.

"We are now talking to the brain without the participation of the senses," said Dr. Delgado in an interview at his laboratory. "This is a pure and direct communication—I call it 'nonsensory communication.'"

Dr. Delgado said he expected to use the new technique on human beings within a year. One possible application is in the treatment of epileptics.

Theoretically, the computer could recognize the pattern of brain waves associated with the onset of a fit and trigger the inhibitory areas of the brain or inject a chemical.

PACEMAKER FORESEEN

Ultimately, he said, we may have internal brain pacemakers, controlling such things as breathing, motor functions and emotions by a similar system—much the way heart pacemakers work today.

Previously, Dr. Delgado has applied what he calls ESB, for electrical stimulation of the brain, to human beings in experimental efforts to calm violent mental patients and relieve pain by radio. He has also halted by radio a charging bull that was fitted with electrodes implanted in inhibitory regions of the brain.

All of this has prompted talk of "push-button people" and of dictators controlling the brains of whole armies. Such suggestions disturb Dr. Delgado, who believes the implications of his work are largely medical and scientific.

"Fortunately you cannot induce education by brain stimuli," he said. "All you can do is activate what is already there."

The technical details of the new work are to be published in the September issue of the journal Brain Research. A young male chimpanzee named Paddy was used in the experiment.

Other scientists have long implanted electrodes to study neutral activity and treat such problems as intractable pain.

But these devices, connected by wire to the instrumentation, made it necessary to constrain the subject so that normal social interaction could not be studied.

"STIMOCEIVER" DEVELOPED

Therefore, Dr. Delgado has developed what he calls a "stimoceiver." This is a miniaturized combination radio transmitter, receiver and electrical stimulator that can be put into a box smaller than a pocket cigarette lighter.

With it, electrical electroencephalogram (EEG) patterns can be transmitted wirelessly from the brain and artificial stimuli received—while the animal remains free.

The experiments with Paddy began on Feb. 1, 1968, when a bundle of 100 steel wire electrodes were implanted painlessly in both sides of three areas of the brain—the caudate nucleus, amygdala and reticular formation. The wires were anchored in a socket atop the skull. The stimoceiver, enclosed in a teflon box, was mounted on the socket.

To stimulate natural conditions, Paddy was placed on an artificial island in the company of three other chimpanzees at the 6571st Aeromedical Research Laboratory at Holloman Air Force Base in New Mexico.

Dr. Delgado's work was supported by the Air Force until recently, when it was decided that it had no direct military application. Congress recently forbade the armed forces from supporting nonmilitary research.

The transmitting and receiving equipment was mounted nearby, and Paddy's brain and motor activity were monitored 24 hours a day. The experiments hinged on the pattern of electrical activity in a small almond-shaped structure in the brain called the amygdala.

WAVE PATTERNS OF BRAIN

The amygdala spontaneously produces electrical wave patterns with a characteristic shape called spindles at the rate of about 1,000 an hour. Spindles are thought to be linked to olfactory, or smelling, functions and are one of the easiest patterns to recognize.

The spindles were converted by the stimoreciver into FM radio signals and fed into a Donner Analog computer. The computer was programed to recognize the spindles and to produec another signal for the duration of each spindle.

This signal was then converted into another FM radio wave and transmitted back to the animal, where it was picked up by the stimoceiver. The stimoceiver then triggered an impulse to the reticular formation, an area in the brain stem connected with arousal.

Thus the information received by the reticular formation was directly contingent on the pattern of electrical activity in a distant area, the amygdala.

The results showed that each impulse to the reticular formation inhibited electrical activity in the amygdala. After two hours of such feedback—that is, a signal is modified by its own deviation—the rate of spindling was cut to about half of normal. It disappeared almost completely after several days.

At the same time, behavior changed. The return impulses caused a slight grimace. Paddy became less aggressive and excitable, and lost much interest in food. After the computer was disconnected, these changes persisted for two weeks, after which behavior and spindling rate returned to normal.

ONLY ONE ANIMAL USED

The experiment was done on one animal only, but repeated successfully several times over a year and a half. The animal has suffered no apparent ill effects from the electrodes.

Collaborating with Dr. Delgado were Dr. Victor S. Johnston, Dr. Jan D. Wallace and Dr. Ronald J. Bradley.

The experiment, Dr. Delgado said, demonstrates the feasibility of artificial feedback between two cerebral structures and "on-demand" stimulation of the central nervous system.

According to Dr. Delgado, all of this has important implications for research and medicine. Various conditions, including multiple sclerosis, Parkinson's disease, anxiety, fear, obsessions, violent behavior, could conceivably be controlled by direct stimulation of the brain, which ultimately underlies all mental and physical activity.

Dr. Delgado has also experimented with imparting sight and hearing to blind and deaf persons through direct stimulation of specific areas of the brain.

A number of researchers, including Dr. Delgado, have permanently implanted electrodes in human beings. One of the leaders in this field is Dr. Robert Heath at Tulane University in New Orleans. Dr. Heath has been using the technique to correlate brain activity with behavior and to treat explosive and depressed patients.

NEW INSTRUMENTS NEEDED

To make such treatment practical, Dr. Delgado believes it will be necessary to develop radio instruments that can be completely buried under the skin. An experimental model of such a device is being tested in monkeys at his laboratory, but application is some years off.

The doctor recognized that the philosophical implications of this kind of work are as great as the medical. However, he says that brain stimulation should be treated much like other biological interventions we have become accustomed to—innoculations, tranquillizers, fluoride treatment of water, food additives.

He believes brain research can provide a window to the understanding of personality and social behavior—not to manipulate but to improve.

Technology, he says, has neglected man. So little is known of what goes on in the brain, he says, that "we are not civilized in human behavior."

In his recent book, "Physical Control of the Mind," Dr. Delgado wrote:

"We are now on the verge of a process of mental liberation and self-domination that continues our evolution. Its experimental approach is based on the investigation of the depth of the brain in behaving subjects.

"It's practical applications do not rely on direct cerebral manipulations but on the integration of neurophysiological and psychological principles leading to a more intelligent education.

"We must create a future man with greater personal freedom and originality—a member of a psychocivilized society, happier, less destructive and better balanced than present man."

[From the Washington Post, June 3, 1970]

SCIENTISTS CREATE FIRST GENE IN A TEST TUBE

U. OF WISCONSIN TEAM'S FEAT MAY LEAD TO CONTROL OF LIFE

(By Victor Cohn)

The first synthesis of a gene, the basic unit of heredity, was announced yesterday as the result of a momentous five-year effort at the University of Wisconsin.

The historic feat hastens the day of genetic engineering: mastery by man of the very control chemistry of life. It was accomplished by a team headed by Dr. H. Gobind Khorana.

Nobel-prize-winning geneticist Joshua Lederberg at Stanford University called the achievement a "milestone" and one that came "two years earlier than I expected."

On some future day, scientists may manufacture genes or parts of genes to order, and use them to cure or prevent diseases, or even change personality.

Some scientists even foresee—or fear—future production of "tailor-made" human beings as the result of such engineering.

Others call this unlikely. There is sure to be wide agreement however, that the shy, 47-year-old Khorana—a native of India who won the Nobel prize for several earlier steps in 1968—has probably opened an epoch.

In their Madison, Wis., laboratory, Khorana and his colleagues duplicated the structure of one of nature's simpler genes: one found in yeast RNA (for ribonucleic acid). Specifically, they synthesized an alanine transfer-RNA gene, one that orders production of the RNA that carries some of the essential genetic information in yeast cells.

"Now that he has determined the rules" for chemical synthesis, "theoretically any desired gene could be made in the test tube," said a University of Wisconsin announcement that Khorana approved.

What Khorana did in more detail in his test tubes was to put a set of chemical building blocks called nucleotides into the sequence in which they occur in the natural yeast gene.

The Wisconsin group has yet to perform one ultimate—but hard—experiment check-

ing the new gene for biological activity by introducing it into a living cell lacking this gene to transform the cell into a normal one.

Many other experiments are ahead. Khorana would like to know how the genes act more precisely in protein synthesis. He wants to know what chemical signals turn the gene on and off in a living cell. To do such things, he plans to modify specific parts of the synthetic molecule and observe the effects.

He has already started work on synthesizing a second gene—a transfer-RNA found in the bacteria E. coli and optimistically now expects to complete this work within a few months.

What Khorana and company have produced then is not a molecule to make better yeast—that would be a minor goal—but a methodology to assemble other genes and investigate the chemical structure of life.

Khorana shared the 1968 Nobel prize in medicine with Drs. Robert Holley (now at the Salk Institute) and Marshall Nirenberg of the National Institutes of Health at Bethesda. He talked to a few reporters yesterday but declined to hold a news conference.

"He expressly does not want a news conference; he wants to talk to scientists," a colleague said.

He plans to move with his team in the fall to Massachusetts Institute of Technology. Born in Raipur, India, he came to Wisconsin in 1960 as professor of biochemistry.

His efforts, he said when he received the Nobel prize might eventually lead to "manipulating biology" to cure cancer, diabetes or physical effects. Or "in the long distance future," he said, "the knowledge might allow for genetic planning of individuals—tailoring people to fit patterns, turning out athletes or intellectuals."

That, he insisted, is "a very, very long time off." But "in that context," he conceded, "we are in a very elementary but a necessary stage."

[From the Washington Post, March 12, 1971]

GENE IMPLANT SEEN STEP TO CELL CONTROL

(By Victor Cohn)

A long step toward genetic engineering—artificially correcting defects in human cells—has been taken at Oxford University.

Dr. Henry Harris and other scientists there have inserted into a deficient mouse cell some healthy genetic material from chick embryos, thus correcting the mouse cell deficiency.

The new genes remained part of the permanent cell machinery, moreover, and were duplicated as the now healthy cells grew and divided.

This has been done entirely in what biologists call "tissue culture": collection of cells in the laboratory. The next step will be to try to repeat the process in mice.

But, says the British journal Nature in an accompanying comment, "removing cells with some genetic defect from a (human) patient, treating them to introduce" a new gene or genes "and replacing the cured cells in the patient" is now "possible in principle."

There are many equally long or longer steps ahead. Genetic engineering. Nature emphasized, is not "imminent." Yet "it is important to say," the eminent journal noted, that "these experiments offer the exciting prospect, in theory at any rate, of evolving a therapy" for mutant and defective human genes.

A vital part of the accomplishment was this: Only pieces of chick chromosome material (chromosomes are little rods which contain genes) were transferred.

GENETIC ENGINEERING CURES DEFICIENCY IN A MOUSE CELL

These were too small to carry the chemical instructions for manufacturing antigens. This means they did not arouse antibodies—proteins which normally fight off all foreign tissue in the host.

It is this achievement (Nature calls it "most elegant") which raises the most hope that this kind of human cell therapy will one day be possible.

In their full scientific account, the British group—A. G. Schwartz, P. R. Cook and Harris, all of the Sir William Dunn School of Pathology at Oxford—tell how they:

Used an inactivated mouse virus as a kind of silent partner to carry the chick embryo material.

Thus incorporated small amounts of pulverized genes from chick red blood cells into a line of mouse cells unable to produce the enzyme IAP. This same deficiency in humans causes a rare and fatal hereditary disease, Lesch Nyhan syndrome.

Found that most of the hybrid cells thus produced still failed to make IAP and therefore died. But some survived because they now possessed the IAP that the chick genes coded. The chick genes were only loosely integrated in the mouse cell, yet integrated well enough to work this cure.

Is the chick-mouse synthesis a special case, or can the same thing be done in creatures? Nature asked the question and—in what seems to be advance notice of further laboratory progress—added: "It seems already that comparable cells derived from (other) organisms . . . can develop in a similar genetic transfer."

In the late 1940s, a National Cancer Institute scientist pointed out here, Dr. John Enders of Harvard got chick cells to grow polio virus by adding a carrier virus to get the polio virus inside them—after which they too accepted the polio virus's instructions.

Virus DNA (a genetic chemical) has been successfully introduced into cells in many other experiments.

What Harris and company have achieved, the scientist here explained, is an engineering advance: introducing a whole piece of chromosome that may have "hundreds and hundreds" of genes rather than the five or 10 of a small virus.

The Schwartz-Cook-Harris article in Nature was highly modest in wording. But its brief heading summed up their coup: "Correction of a Genetic Defect in a Mammalian Cell."

[From the Washington Post, Dec. 26, 1970]

BETHESDA, MD.,
December 21, 1970.

HUMAN REPRODUCTION

LETTER TO THE EDITOR:

The report by Stuart Auerbach ("Lab Grows Embryo Ready for Womb," December 17, 1970) of the current success in the laboratory culture of human embryos and the anticipated success in implanting these embryos in prospective mothers prompts numerous moral and political questions. I wish to address but a few of these.

The article reports that the scientists are ready to proceed with implantation if tests on the embryos can rule out the presence of genetic defects. One should question whether the limited tests for defects now available can declare these embryos "genetically fit." Further, manipulation of the embryos to conduct such tests may itself introduce damages, some probably not detectable until after birth. One must not forget that there is a human being (the child-to-be) upon whom these experiments are to be performed and who may suffer for our zeal and ignorance, an ignorance no more excusable because well-meaning.

But one may go further and ask whether safety, even if adequately measured, would be a sufficient warrant for going ahead. Surely, there is more at issue than providing a child for an infertile woman. Once introduced for that purpose, the technique can be used for any purpose. Indeed, the work described is a giant step toward the full laboratory control of human reproduction. What are the implications of this step, and of the others it makes possible, for the human-ness of human procreation or for the human family? What are the implications of establishing as a precedent the passing of genetic tests as a prerequisite for a title to be born? Should not the weighing of ethical considerations concerning the widespread use of the new technology enter into the decision to use it for the first time.

These ethical questions point to a political question. Laboratory control of fertilization and embryonic development is a major departure in human procreation whose human consequences, both private and public, are likely to be profound. It is no mere ordinary medical advance. Therefore, one must question the wisdom of leaving the decision to go ahead for the private judgment of a team of physicians and scientists (whose judgment I am not now questioning), or even for the collective judgment of the medical and scientific community. Is this not a decision which deserves full public deliberation and resolution?

We are all to often forced to cope belatedly with the untoward consequences of technological advance, consequences unanticipated because the primary goal was thought to be so obviously good, or because the decision to go ahead was made technocratically and without public deliberation. Let us not make the same blunders with respect to the awesome powers, now gathering, for manipulating the bodies and minds of men.

Sincerely,

LEON R. KASS, M.D.

[From the Hospital Tribune, May 4, 1970]

DEFINITION OF DEATH: A DOUBLE STANDARD

(By Eliot Corday, M.D.)

Is the medical profession setting up a double standard of death? Can the transplant surgeon be charged with homicide or body robbing? Will new definitions of death cause a domino effect which dislocates relationship between everyday medical, legal, and clerical practices?

Farfetched as this may sound, there is the possibility that such questions may arise in the public mind—because exaggeration is sometimes a common currency in public discussion—unless the medical profession refines its definition of death. Already, in view of the known resuscitative methods and life-support systems that may revive a patient from apparent death, the public has begun to question the criteria by which a live heart is removed from a dead donor. And ultimately, we must have the support of the public.*

As matters stand now—in what Samuel Johnson called "the fury of innovation"—we are in danger of antagonizing the public by appearing to be moving toward a double standard. One standard would be to accomodate the transplanters—certifying that death has occurred when there are no reflexes and the EEG trace is linear—in other words, cerebral death. The other standard for the everyday practice of medicine would be to continue to accept the age-old definition of death as the irreversible cessation of perceptible heart beat and respiration. And today this may have to imply that cardiac resuscitation, assuming it was available, had been attempted and failed—a question that has come up in at least one court case.

If we adopted such a double standard in our everyday practice, will the public begin to fear that we are moving toward euthanasia?

Two lawyers, Houts and Hunts, recently wrote that as long as any heartbeat or respi-

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* From the *American Bar Association Journal, vol. 55, pp. 629–632, July, 1969.*

ration can be perceived, either with or without mechanical aids, death has not occurred. Obviously, this would preclude successful heart transplantation.

Also, obviously, we cannot maintain a double standard of death. It would dent public confidence in medicine and prevent transplantations. So it is around this irritant that some pearl of wisdom must be formed. Among the perplexities we need to look at are: (1) the financial trauma to a patient's family if we were obliged to keep him alive by mechanical means when there is no possibility of recovery; (2) a new concept to provide a single standard of death to avert the possibility, however remote, of a charge of homicide or wrongful action against a transplanter—and if not wrongful action, the accusation of samurailike conduct. In feudal Japan a samurai warrior could test his sword against any passing peasant.

On the first point, there is no such legal requirement in this country. And in 1957, Pope Pius XII, while speaking out against euthanasia, also declared that there is a clear distinction between negative life and superior life with all the vital functions; the artificial prolongation of life, he said, is not "obligatory, particularly if it created too heavy a charge on the family." So it must be taken as a medical axion, legally and theologically, that the physician should not be obliged in every situation to use extraordinary life-prolonging procedures after it has been clearly established that there is no hope for the patient's recovery.

On the second point, an ad hoc committee of Harvard University has proposed criteria of irreversible coma: when respiration is maintained only by artifical means and this is withdrawn, spontaneous respiration would be impossible; a total unawareness of externally applied stimuli; no spontaneous muscle movement; no reflexes; a flat EEG. These have been generally accepted as a basis for the diagnosis of cerebral death to permit organ removal. Some transplant surgeons, however, have declared cerebral death while spontaneous respiration was still present.

Also in 1968, similar criteria were issued by 24 surgeons, immunologists, neurologists, and heart specialists called together in Geneva by the Council for International Organizations of Medical Sciences operating under the World Health Organization and UNESCO. They added two further guidelines: (1) the donor's heart must be in perfect condition at the time of removal; (2) an immunological examination should be made before the operation to determine the compatibility of donor and receiver. The scientists decided also that two independent teams should be deployed in heart transplant operations, one to establish the donor's hopeless condition, the other to perform the operation.

The Harvard criteria provide sound guidelines for the discontinuation of extraordinary life-prolonging procedures. But these and the Geneva guidelines still need to be ratified by the medical profession, the legal authorities, and the public. Otherwise we face the possible accusation that the concept of cerebral death is designed to meet the special interests of the transplanters; and we face the public's apprehension that this concept is a preface to euthanasia. We face, in short, an ethical crisis.

To avert this crisis, we need to determine whether there is adequate evidence that the moment of death may now be advanced to coincide with brain death, though cardiorespiratory activity is spontaneous. It would seem advisable to convene a Bethesda-type conference to try to arrive at this determination. Lawyers, clergymen, sociologists, perhaps even philosophers and cultural anthropologists should also be invited. The medical delegates, of course, would be the only ones to formulate scientific criteria. Any change requires careful study because it could start a chain reaction that might dislocate many relationships and standards of the everyday practice of medicine. But the advice of other professions may provide us with legal and historic precedent and with subtle moral guides to keep us from stumbling into some ethical or legal pothole.

Such a high-level conference would also give us the support that would increase the likelihood that our medical judgment, should we be able to arrive at one, will be accepted by the public. Certainly the public would be heartened by the fact that we have called upon other minds to share our moral responsibility and scrutinize our decisions.

Equally as important, we may harvest from such a meeting a new wisdom to accompany us should ethical problems arise from future scientific innovations.

EXCERPTS FROM POTENTIAL CONSEQUENCES OF EXPERIMENTATION WITH HUMAN EGGS

(By J. D. Watson)

The Biological Laboratories Harvard University, Cambridge, Mass., and The Cold Spring Harbor Laboratory, Cold Spring Harbor, New York; Presented Before the Twelfth Meeting of the Panel on Science and Technology Committee on Science and Astronautics, U.S. House of Representatives, January 28, 1971.

Several years ago a most remarkable frog grew up in Oxford. Its origin did not lay in the union of a haploid sperm cell with a haploid egg, the fertilization process which ordinarily gives each higher animal a mixture of paternal and maternal genes. Instead this frog arose from an enucleated egg, into which had been inserted a diploid nucleus from the intestinal cell of an adult frog. Microsurgical removal of the maternal nucleus from this egg had denuded it of any genetic material. But by subsequently gaining a diploid nucleus (as opposed to the haploid form found in a sperm) the egg acquired the chromosome number normally present in a fertilized egg. As such it could be activated to divide, thereby setting into motion the successive embryological stages which culminate in an adult frog.

The genetic origin of this frog was thus very different from that of all previous frogs, one half of whose chromosomes came from the male parent through the sperm, the other half from the female parent which produced the egg. Normal fertilization processes by combining genetic material from two different parents always generate progeny uniquely different from either parent. In contrast, the Oxford frog derived *all* its genetic material from the individual whose intestinal cell was used as the nuclear donor. The genetic complement of all its diploid somatic cells (as opposed to its haploid sex cells) was thus identical to that in the donor frog. So, in effect, it was an identical twin of the donor frog born some months before. Furthermore, since every adult frog contains millions of cells capable of being used as nuclear sources, the original donor could have served as the genetic parent of thousands of progeny identical to itself.

This type of reproduction is generally referred to as a *clonal* reproduction.

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The question of course arises, will this same basic principle hold for the large majority of differentiated cells? Now I suspect most biologists will guess yes. In general, very fundamental phenomena, of which differentiation is one, do not have a difference molecular basis from one organism to another. Moreover, it is already clear that differentiation in several plant species does not involve irreversible nuclear changes. Now it is routinely possible to produce mature plants starting from highly specialized somatic cells of diploid chromosome number. For example, mature carrot plants can be produced from single callus cells that are placed in proper nutritional environments. Thus it is highly likely that the embryological development of most higher animals, including man, involves the creation of countless numbers of totipotent somatic nuclei each capable of serving as the complete genetic material for a new organism. This means that, *theoretically*, all forms of higher animal life may in effect be capable of clonal reproduction.

If true, this situation could have very startling consequences as to the nature of human life, a fact soon appreciated by many magazine editors, one who commissioned a cover with multiple copies of Ringo Starr, another who gave us overblown multiple likenesses of the current sex goddess Raquel Welch. It takes little imagination to perceive that different people will have highly different fantasies, perhaps with some imagining the existence of countless people with the features of Picasso or Frank Sinatra or Walt Frazier or Doris Day. And would monarchs like the Shah of Iran, knowing they might never be able to have a normal male heir, consider the possibility of having a son whose genetic constitution would be identical to their own?

Clearly even more bizarre possibilities can be thought of, and so we might have expected that many biologists, particularly those whose work impinges upon this possibility, would seriously ponder its implications, and begin a dialogue which would educate the world's citizens and offer suggestions which our legislative bodies might consider in framing national science policies. On the whole, however, this is not at all what has happened. Though a number of scientific papers devoted to the problem of genetic engineering have casually mentioned that clonal reproduction may someday be with us, the discussion to which I am party, have been so vague and devoid of meaningful time estimates as to be virtually soporific.

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The general impression exists among biologists that the cloning of any mammal will be far from a routine task, if not impossible, over the foreseeable future. In particular, the techniques of micromanipulation used to insert nuclei into frog's eggs cannot now be applied to eggs in the mammalian size range. They are likely to be irreversibly damaged by the introduction of a nucleus whose diameter is only some two or three times less than that of the egg itself. And if somehow a trick were ever found to successfully insert a diploid nucleus, the equally challenging task of finding conditions for the in-vitro growth of the modified egg through to the adult stage would still lie ahead. Thus the clonal production of human beings has seemed to most geneticists an event so unlikely as to not be worth stirring up public attention.

This assessment would be correct if the pace of research on human reproductive biology would continue at the current rate. With a few exceptions, work on the early developmental processes in man has not been seriously pushed either here in the United States or elsewhere. As a result, there exists a scientific lacuna so serious that it deeply disturbs those people who realistically worry about over-population problems. They believe that more basic biological knowledge about human reproductive processes would be very helpful in slowing down the fearful rise in the number of human beings. Consequently, already there is much "population" money available to induce more people to move into the field of reproductive biology, hopefully to learn in great detail the step-by-step processes by which a human egg is ovulated, fertilized, cleaved, and moves down the oviduct to implant on the uterine wall.

A key ingredient to obtaining this information is the development of methods by which the early embryological stages of mammals can be studied in-vitro. For as long

as study is restricted to work on intact animals, experimental work, as to be distinguished from observational analysis, will be virtually impossible. Most importantly, though unknown even to most biologists, the beginnings of first rate research on the in-vitro cultivation of mammalian eggs has already occurred. Techniques are in fact available for the isolation of mouse eggs, their fertilization in-vitro, and subsequent cultivation under test-tube conditions which permit growth to the sixty-four cell stage. At this point the embryonic body (called a blastocyst) can be surgically implanted back into the uterus of a living mouse, where it can eventually develop to the stage at which normal birth occurs.

This means that most of the techniques that will be needed for a clonal mouse are already available. The only serious obstacles remaining are the development of methods for the removal of the haploid maternal nucleus and the subsequent addition of a diploid adult nucleus. Now there are hints that the enucleation problem will not be serious. For some years it has been known that addition of the mitotic poison colchicine to preovulatory mice leads to abnormal meiotic divisions which frequently produce nuclear-free eggs. Moreover, very recent work suggests that colchicine in-vitro acts similarly. When it is added to unfertilized eggs which have been surgically removed from a living mouse, healthy enucleated eggs are produced.

And furthermore it looks like the nuclear insertion process might not be anywhere as tricky as first thought. This change of opinion is the result of the development of very simple methods for fusing two cells to yield a single cell containing the genetic compounds of both donor cells. Though the existence of rare examples of cell fusion was first clearly demonstrated in Paris by Barski in 1962, not until 1966 did Henry Harris and John Watkins working in the Pathology Department of Oxford University develop a routine method for easily fusing almost any two desired cells. Their contribution was the introduction of ultraviolet light-killed Sendai virus (a close relative of the common flu viruses). In some way not yet understood, adsorption of large numbers of Sendai particles so modifies cell surfaces that when two so-treated cells touch each other, portions of the opposing cell surfaces effectively dissolve, thereby creating one much larger cell containing two nuclei. Subsequently these nuclei often coalesce yielding a single nucleus containing all the chromosomes present in both original nuclei.

During the past three years, Christopher Graham, also at Oxford, has been using Sendai virus to fuse mouse eggs with diploid adult mouse cells. The resulting cells still retain the essential features of an egg because even the relatively small mouse eggs are much larger than most diploid adult cells. While the fused eggs can divide several times, they so far have not yet developed into blastocysts, the stage necessary for successful implantation into the mouse uterus. Conceivably this limitation results from the need to remove the zona pellucida (a normal protective covering) for the Sendai virus fusing trick. Conditions must thus be found either to fuse eggs which retain the zona pellucida or which permit unprotected denuded eggs to develop normally to blastocyst. A reasonable guess is that Graham will succeed, if not this year, most likely within this coming decade. The clonal mammal then will no longer be science fiction.

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At first consideration, it would seem likely that cloning of many domestic species would have to occur before serious thought would be given to the development of clinical procedures which would make human cloning more than a theoretical possibility. This way of thinking presupposes that the primary purpose for such methodological development need be cloning itself. If this in fact were the objective, the variety of moral and legal objections that would be bound to crop up most certainly would effectively prevent the legal granting of the medical facilities needed for extensive in-vitro experiments with human eggs.

If, however, the stated objective is to probe the human reproductive process so that better contraceptive methods can be obtained, the reaction of the general public will be much harder to predict. Though many people will look with horror at any test-tube work with human eggs, others will breathe more easily that something is being done to prevent the world from being crushed by over-population. Until several years ago, this latter group was numerically relatively small and without favor in virtually any political circle. Today, however, taboos which would have seemed unbreakable just a decade ago are rapidly being overturned, witness the recent action of the United States Congress in overwhelmingly passing legislation that would promote family planning. Even more significant was the action of New York State in making abortions the right of any women who so desire them.

Moreover, the development of a simple method for the predetermination of the sex of unborn children might generate considerable support, even if the methods involved the selective abortion of the not-wanted sex. At the same time I would foresee violent objections from other quarters, conceivably making the introduction of such sex-determining techniques illegal throughout much of the world. On the other hand, I would be surprised if all countries reacted unanimously. Most likely there would exist some countries where such sex-determining abortions were legal. If so, affluent families already having four sons could with absolute certainly have the pleasure of knowing that their last baby would be a girl.

The prognosis thus seems virtually inevitable that for one reason or another the number of people studying all aspects of human embroyogenesis will greatly increase. Not only will the amount of classical observational analysis increase, but even more important, direct experimentation with human eggs most likely will soon be the main preoccupation of a number of intelligent, highly-qualified biologists.

Already there exists one such individual, R. C. Edwards, an English reproductive biologist now working in the Physiology Department of Cambridge University. Originally trained as an embryologist and with some ten years experience in growing mouse embryos in-vitro, he focuses his attention on the test-tube growth of human eggs.

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Edwards, together with his clinical colleague, P. C. Steptoe of Oldham General Hospital, have devised a simple surgical method for the removal of healthy human eggs after they have completed much of meiosis, but before the ovulation step which releases free eggs from their follicles into the oviduct. Called laparoscopy, it is a relatively minor operation which, while requiring general anesthesia, generally only needs a twenty-four hour hospital stay. Prior to the operation, a regimen of hormone (gonadotrophins) treatment is given to induce follicle maturation and egg development through the early stages of meiosis. Laparoscopy is then performed, some four hours before ovulation would occur normally. The ovaries so exposed usually contain highly enlarged follicles with thinning walls, through which the desired oocytes can be carefully removed. Their procedures have now reached the state where they can obtain healthy eggs from over half the follicles examined.

Such pre-ovulating oocytes are very suitable for subsequent embryological investigations. Fertilization rapidly ensues after human sperm addition, and in contrast to those eggs which had undergone meiotic divisions in-vitro, these invivo matured eggs generally begin normal cleavage divisions. Already many embryos have developed to the eight-cell stage while a few have become blastocysts, the stage where successful implantation into a human uterus should not be too difficult to achieve. In fact, Edwards and Steptoe hope to accomplish implantation and subsequent growth into a normal baby within this coming year.

The question naturally arises why should any women willingly submit to such operations. There is clearly some danger involved every time Steptoe operates. Nonetheless, he and Edwards believe that the risks involved are more than counterbalanced by the fact that their research may develop methods which make their patients able to bear children. All their patients, though having normal menstrual cycles, are infertile conceivably because many have blocked oviducts which prevent passage of their eggs into the uterus. If so, in-vitro growth of their eggs up to the blastocyst stage may circumvent their infertility, thereby allowing normal childbirth. Moreover, since the sex of a blastocyst is easily determined by chromosomal analysis, such women would have the possibility of deciding whether to give birth to a boy or a girl.

Clearly, if Edwards and Steptoe succeed, their success will be followed up in many other places. The number of such infertile women, while small on a relative percentage basis, is likely to be large on an absolute basis. Conceivably within the United States there could be 100,000 or so women who would like a similar chance to have their own babies. At the same time we must anticipate strong if not hysterical, reactions from many quarters. The certainty that the ready availability of this medical technique will open up the possibility of hiring out unrelated women to carry a given baby to term is bound to outrage many people. For there is absolutely no reason why the blastocyst need be implanted in the same woman from which the pre-ovulatory eggs were obtained. So, many women with anatomical complications which prohibit successful childbearing, would be strongly tempted to find a suitable surrogate. And it is easy to imagine that many women who just don't want the discomforts of pregnancy would also seek this very different form of motherhood. And of even greater concern would be the potentialities for misuse by a savage totalitarian government.

Some very hard decisions may soon be upon us. For it is not obvious that the vague potential of abhorrent misuse should weigh more strongly that the unhappiness which thousands of married couples feel when they are unable to have their own children. Different societies are likely to view the matter differently and it would be surprising if all come to the same conclusion. We must, therefore, assume that techniques for the in-vitro manipulation of human eggs are likely to be general medical practice, capable of routine performance through the world within some ten to twenty years.

The situation would then be ripe for extensive efforts, either legal or illegal, at human cloning. No reason, of course, dictates that such experiments need occur. Most of the medical people capable of such experimentation would probably totally stay clear of any step which in any way looked like its real purpose was to clone. But it would be shortsighted to believe everyone will instinctively recoil from such purposes. Some people may very sincerely believe the world desperately needs many copies of the really exceptional people if we are to fight our way out of the ever increasing computer mediated complexity that makes our individual brains so frequently inadequate.

Moreover, given the widespread development of the safe clinical procedures for han-

dling human eggs, cloning experiments would not be prohibitively expensive. They need not be restricted to the super powers—medium sized, if not minor countries, all now possess the resources needed for eventual success. There furthermore need not exist the coercion of a totalitarian state to provide the surrogate mothers. There already are such widespread divergences as to the sacredness of the act of human reproduction that the boring meaninglessness of the lives of many women would be sufficient course for their willingness to participate in such experimentation, be it legal or illegal. Thus, if the matter proceeds in its current nondirected fashion, a human being—born of clonal reproduction—most likely will appear on the earth within the next twenty to fifty years, and conceivably even sooner, if some nation actively promotes the venture.

The first reaction of most people to these conclusions may be one of despair. The nature of the bond between parents and their children, much less everyone's values about their individual uniqueness, could be changed beyond recognition, and by a science which they never understood but which until recently appeared to provide more good than harm. Certainly to many, our most sensible course of action would be to de-emphasize all those forms of research which would circumvent the normal sexual reproductive processes. If this step were taken, experiments on cell fusion would no longer be supported by federal funds or tax-exempt organizations. Prohibition of such research would most certainly put off the day when diploid nuclei can satisfactorily be inserted into enucleated human eggs. Even more crucial would be to take steps quickly to make illegal, or reaffirm the illegality of, any experimental work with human embryos. With both these actions taken, our current value systems might survive somewhat longer.

Neither of these prohibitions, however, is likely to take place. In the first place, the cell fusion technique now offers one of the best avenues for understanding the genetic basis of cancer. Today all over the world, cancer cells are being fused with normal cells to pinpoint these specific chromosomes responsible for given forms of cancer. In addition, fusion techniques are the basis of many genetic efforts to unravel the biochemistry of diseases like cystic fibrosis or multiple sclerosis. Any attempts now to stop such work using the argument that cloning represents a greater threat than a disease like cancer is likely to be considered irresponsible by virtually anyone able to understand the matter.

Though more people would initially go along with a prohibition of work on human embryos, many may have a change of heart when they ponder the real mess confronting us by the population explosion. The current projections are so horrendous that responsible people are likely to consider the need for more basic embryological facts much more relevant to our self-interest than the not-very-immediate threat of a few clonal men existing some decades ahead. So, scientists like Edwards are likely to get to go-ahead signal even if, almost preversely, the immediate consequences of their research may be the production of even more babies.

Complicating any possible effort at effective legislative guidance is the multiplicity of places where work like Edwards' could occur, thereby making most unlikely the possibility that such manipulations would have the same legal (or illegal) status throughout the world. We must assume that if Edwards and Steptoe produce a really workable method for restoring fertility, large numbers of women will search out those places where it is legal (or possible), just as now they search out places where abortions can be easily obtained.

Thus, all nations formulating policies to handle the implication of in-vitro human embryo experimentation must realize that the problem is essentially an international one. Even if one or more countries stop such research, their action could effectively be neutralized by the response of a neighboring country. This most disconcerting impotence even holds for the United States. If our congressional representatives, upon learning where the matter now stands, decided they wanted none of it and passed very strict laws against human embryo experimentation, their action would not set back seriously the current scientific and medical momentum which brings us close to the possibility of surrogate mothers, if not human clonal reproduction. This is because the relevant experiments are not being done in the United States, but largely in England. This is partly a matter of chance, but also a consequence of the advanced state of English cell biology. In certain areas it is far more adventurous and imaginative than its American counterpart. Now there is no American university with the strength in experimental embryology that Oxford possesses.

We must not assume, however, that today the important decisions lie only before the British government. Very soon we must anticipate that a number of biologists and clinicians of other countries, sensing the potential excitement, will move into the area and so even if the current English effort were stifled, similar experimentation could soon begin elsewhere. Thus it appears to me most desirable that as many people as possible be informed about the possible new ways of human reproduction and their potential consequences, both good and bad. Conceivably an international consciousness might be apparent and some form of international agreements might be negotiated before the cat is totally out of the bag. Admittedly, the vast effort, needed for even the most limited international arrangement, will deter those who believe the matter now is of such marginal importance that in effect it might be a red herring designed to take our minds off our callous attitudes toward war, poverty, and racial prejudice. But if we do not think about the matter now, the possibility of our having a free choice will one day suddenly be gone.

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[From the Washington Post, Feb. 4, 1971]

DNA AND THE SORCERER'S APPRENTICE

Man has come to be where he is in part because—at least until Hiroshima—he has considered anything that seemed possible by way of scientific discovery and technological capability to be *ipso facto* desirable. Lately, however, an increasing number of scientists has become increasingly worried that man, like the Sorcerer's Apprentice, may be unable to control the forces he keeps unleashing—that progress in science and technology is coming far faster and more easily than progress in our ability to deal with the social, political and moral implications of our discoveries.

One such worrier is Dr. James D. Watson, the Nobel-prize-winning co-discoverer of the structure of DNA, the heredity molecule and the author of "The Double Helix," a book that gave thousands of laymen a fascinating and human glimpse of these awesome scientific endeavors. Dr. Watson told the House Science Subcommittee a few days ago that any day now British scientists may produce a human embryo that can be placed inside a woman who will bear the child. "Then all hell will break loose," he said. For the next logical step will be to engineer biologically a human being by screening out "undesirable" characteristics and otherwise manipulating the female egg cells and male sperm cells before they are joined.

Scientists can see much obvious good resulting from these experiments. One might be an understanding of the genetic basis for cancer and other diseases. But Dr. Watson and others also have no difficulty imagining fearful abuse, not the least of which would be a drastic change in the nature of the bond between parents and their children and in the values we now attach to man's individuality. And worse. The "scientific" experiments in Hitler's concentration camps—the biological engineering for other than research purposes—are still too fresh on many minds to dismiss as mere nightmares. There is enough of what George Orwell called "double-think" even in our own, open society, to make it at least feasible that, once test-tube production of an unlimited number of duplicate embryos becomes possible (Dr. Watson deems this likely in 20 or 50 or perhaps five years) someone will set out to produce a master race or supermen.

Dr. Watson and a number of his colleagues, at any rate, fear that if we do not think about these matters now, "the possibility of our having a free choice will some day suddenly be gone." He suggested that the United States take the lead in forming an international commission to make this kind of biological engineering illegal.

Illegal? At first thought, a good many people will surely feel that this could only dangerously tempt another Sorcerer's Apprentice to invoke governmental control over some other quest for knowledge; international control, furthermore, seems a naive hope at best. So we share these first tentative thoughts. But we also urge second thoughts. And third and fourth ones, because the issue is incredibly complex, and therefore much too important to be allowed to become polarized between wishful thinkers and "realistic," first-thought-only thinkers. It is going to take broad, as well as hard, thinking, by which we mean, if you will pardon the cliche, that the application of these bio-medical developments is far too serious a matter to be left to the bio-medical scientists alone. This is why Dr. Jonas Salk is inviting philosophers as well as physical scientists to his Institute in La Jolla and why the Committee on Life Sciences and Social Policy of the National Research Council and the Institute of So-

ciety, Ethics and Life Science seek to draw lawyers and scientists in a variety of disciplines into their search for a middle ground between statutory limitations on certain research and pragmatic laissez-faire.

We desperately need this search. And to spur it along, we need broad discussion on the ever more urgent question of whether we dare continue to let material progress be our only guide.

[From the Washington Post, Feb. 24, 1971]

EXPERIMENTS ON HUMANS

In your most thoughtful editorial of Feb. 4, you discuss many of the matters which I talked about recently before the House Science and Astronautics Committee. The International Commission on Genetic Engineering that I proposed be set up, however, would not have as its purpose the outlawing of human embryo experimentation. Instead its task would be to assess the state of the art, and so be in a position to advise the world's governing bodies of the particular consequences of any given technique in genetic engineering.

Some governments, upon thoughtful consideration, might wish to ban certain manipulations (e.g. human cloning). But in other cases, there may be general agreement that certain procedures (e.g. test-tube conceptions to overcome infertility due to oviduct blockage) are in the national interest and should be actively promoted. In any case, I think the matter is much too important to be left in the hands of the scientists whose careers might be made by the achieving of a given experiment. In no case should we forget that the products of these experiments will be human beings, which we must afford the same opportunities for a meaningful life that are now given to children born of "God's" will.

J. D. WATSON,
Professor, Molecular Biology, Harvard University; Director, Cold Spring Harbor Laboratory.
CAMBRIDGE.

[From the New York Times, July 3, 1970]

RX FOR CHILD'S LEARNING MALADY

(By Robert Reinhold)

PROVIDENCE, R.I., July 2.—A few months ago Jackie D., a 6-year-old boy with big brown eyes, was so bad that his mother was at her wits' end.

He could not sit still, he fought with all the other children on the block, was so clumsy that he could not ride a bicycle, had trouble reading and got so frustrated with his first-grade arithmetic that he would tear up his lessons.

But today, Jackie was not his usual self. He deftly climbed up and down a ladder and did somersaults under the approving eyes of Dr. Eric Denhoff, a pediatric neurologist.

In fact, Jackie has not been himself for some time now—ever since he started getting an amphetamine-like medicine called Ritalin a few months ago. Now he is quiet, coordinated and has even done well enough in his lessons to be promoted to second grade.

Jackie is one of countless thousands of American youngsters with normal or even high intelligence who get Ritalin or amphetamines. The aim is to counter a complex and little-understood learning and behavior disorder sometimes called "minimal brain dysfunction" that afflicts as many as three million children.

GROWING ACCEPTANCE

The treatment is a widely accepted and growing one—if still somewhat controversial. It has been used throughout the United States for 10 or 15 years, often yielding results that one expert called "black magic when it works."

The change it induces, often within hours, is described by doctors, parents and teachers as "remarkable" or "amazing."

But amid mounting concern with pill-popping, many medical and laymen have expressed worry over the potential long-term effects of amphetamines, which are widely abused. Moreover, one side effect is loss of appetite, which is particularly undesirable in disadvantaged children who may be undernourished to begin with.

The practice has sporadically generated public dispute. A number of physicians and laymen have expressed fears about long-term effects. In Omaha black parents were recently reported to have protested that their children were being drugged into submission.

According to the best estimates, from 5 to 20 per cent of American children suffer from this disorder, making it a problem of epidemic proportions.

Such children, usually boys, are all too evident in almost every classroom. They jump up and down, throw paper airplanes at the teacher, fight and shove on the lunch line, can concentrate for only a short time, frustrate easily and often do so poorly in school work that they eventually drop out despite good intelligence.

Very frequently this "hyperkinetic" behavior is linked to marked perceptual impairment; that is, visual and auditory signals are not assimilated properly. The child may read words and letters backward, a problem sometimes called dyslexia, or confuse the meaning of sounds.

This neurological disorder, possibly a result of subtle brain damage during or soon after birth, has been found in many but not all cases to respond dramatically to amphetamines, drugs that are normally used, and sometimes abused, to speed up bodily processes.

But for reasons that are not fully clear these stimulants have the paradoxical effect of calming hyperactive pre-puberty children, allowing them to concentrate for normal periods of time.

The drugs do have some side effects—largely loss of appetite and insomnia. Also, there have been reports of children swapping their pills in the school yard with unfortunate effects.

The most commonly used medications are Ritalin, made by CIBA, and Dexedrine and Benzedrine, made by Smith, Kline and French.

"These drugs had been called the penicillin of children with learning disabilities," said Dr. Denhoff, director of the Meeting Street School, an Easter Seal-supported school for handicapped children here. Over the last 2 years, he has maintained 3,000 or so hyperkinetic children on drugs, often with spectacular results.

In fact, it was only a few miles from where Dr. Denhoff was examining Jackie D. that the value of amphetamines was discovered in 1937 quite accidentally by Dr. Charles Bradley, then director of the Bradley Hospital in East Providence, R.I.

Dr. Bradley noticed that drugs he had been giving to control weight problems in disturbed children also seemed to improve their behavior.

SYMPTOMS MASKED

The treatment, which may last for many years, can be likened to the use of insulin for diabetics. That is, it does not cure the underlying neurological disorder, but it masks the symptoms enough to allow the child to become organized, to cope with his environment and to respond to special therapy that is often needed in addition to the medication.

The treatment is not used for children with learning or behavior problems. It is connected with mental retardation, emotional disturbance or psychosis.

The dose varies, but is usually around 30 milligrams a day, about the same that an adult taking amphetamines to lose weight would get, but considerably less than hippies shooting "speed." A 10 milligram tablet of Ritalin costs about 10 cents, so that a week's treatment runs about $2.

Various studies have shown that young children do not become addicted or develop tolerance for the drugs—and that the medication can be readily withdrawn after puberty, when minimal brain dysfunction often remits spontaneously.

While physicians have been using the drugs empirically for 30 years, there have been few controlled scientific studies. One of the first to start such studies was Dr. Leon Eisenberg, chief of psychiatric services at the Massachusetts General Hospital in Boston, and his associate, Dr. C. Keith Conners, a psychologist.

DRUGS HELD VERY SAFE

"When used properly, they are remarkably safe—even safer than penicillin," said Dr. Eisenberg, who has tested about 750 children.

Referring to fears that children were being doped up, he said:

"The basic confusion is to apply standards which were developed in adults to children without recognizing the very marked difference in response to his agent."

He and Dr. Conners have just completed an experiment in which 75 children were broken up into three groups. Twenty-five were given Ritalin, 25 Dexedrine and 25 a placebo with no medicine. Each child was given a wide battery of intelligence and perception tests before and after medication.

SURVEY OPTIMISTIC

The experiment was "double blind", meaning that neither the children, parents nor testers knew which children were getting the drugs. The results showed "extremely strong" beneficial effects of the stimulants on a variety of cognitive, perceptual, attentional and learning tasks, including the so-called Draw-a-man test in which the child is asked to draw a human figure.

Similar results were obtained recently by Dr. Denhoff and Dr. Anthony Davids, a professor of psychology at Brown University, in a study of 42 children at the Governor Center School in Providence. However, Dr. Davids believes much more study is needed before he can say conclusively that the drugs aided learning.

In a survey of studies conducted through 1967, Dr. J. Gordon Millichap and Dr. Glenn W. Fowler of Northwestern University found that 83 per cent of 337 children given Ritalin by various scientists had shown improvement while only 1 per cent got worse from the drug. Undesirable side effects were reported in 14 per cent of the cases.

As for the amphetamines (benzedrine and dexedrine), improvement was found in 69 percent of 610 cases and a worsening in 11 per cent.

In an attempt to measure the long-term effects, Dr. Eisenberg's group recently followed up on 100 children given drugs by Dr. Bradley in the nineteen thirties and nineteen forties. No indication of addiction or other drug-induced emotional or psychological damage was found.

Dr. William S. Langford, director of the pediatric language disorder clinic at Columbia's College of Physicians and Surgeons in New York, has been using the amphetamines since 1938 and Ritalin more recently.

"I don't think it's a learning pill," he said of Ritalin, "but our impression is that it is a safe drug—it keeps kids in school," Dr. Langford said that he had one child on it from age 3 to 13, the boy went on to complete college successfully.

The achievement has probably gained its greatest foothold in California. There, Dr. Sidney Adler, of Anaheim, a consultant to eight school districts in Orange County, has 2,000 children including 200 college students, on various drugs.

"I have saved many many kids from going down the drain," Dr. Adler said.

As elsewhere, school systems in California do not prescribe the drug. This is done by private physicians, often after a teacher or school nurse suggests that the parents seek medical help.

The chemical effects of the drugs are not clear. One theory holds that children with the disorder have immature nervous systems and that the stimulants affect certain immature parts of the brain, allowing the child to use his cortex, which controls logic and reasoning.

A number of pediatric authorities believe that some doctors have used the drugs too readily and have urged caution.

"No doctor should use any of these drugs lightly," said Dr. Robert Cook of Johns Hopkins Medical School. "The whole drug culture of our society is a worry, but in appropriately selected patients it may be as effective as insulin in diabetes."

[From the Washington Post, Sept. 30, 1970]

FDA WARNS AGAINST USES OF "BEHAVIOR" AMPHETAMINES

(By Robert C. Maynard)

Federal Food and Drug Administration officials have warned physicians in Omaha, Neb., against the use of two drugs that had been commonly prescribed there for the "behavior modification" of schoolchildren.

The revelation was among several that emerged in a long day of testimony in Congress yesterday on the use of amphetamine-type drugs to curb the behavior of "hyperactive" children.

Minutes after the FDA warning was introduced to the Right to Privacy Inquiry of the House Government Operations Committee, a Little Rock, Ark., physician testified that one of the drugs was among those used in his behavior modification program.

"That's one of the great concerns about the use of these drugs," said Rep. Cornelius Gallagher (D.-N.J.), chairman of the inquiry. "You are using drugs that FDA says are dangerous and you didn't even know the drugs were dangerous. We should suspend the use of these drugs for this purpose until more is known."

His remarks were addressed to Dr. John E. Peters of Little Rock, who said he uses one of the drugs, Tofranil, for children with learning disabilities.

Neither Tofranil nor the other drug, Aventyl, should be used in children, and the FDA said it "now specifically warns against such use." The agency advised Dr. Byron B. Oberst of Omaha of this in a letter on Aug. 6. Dr. Oberst had been quoted in an article earlier in The Washington Post as saying that Tofranil and Aventyl were among several drugs he prescribed for modifying the behavior of children. The most common drug is Ritalin.

The FDA in its letter to Dr. Oberst emphasized that Tofranil's labeling specifically warns against its use in children. Its side effects include constipation, difficulty in focusing the eyes, precipitation of glaucoma, nausea, vomiting and mild symptoms of Parkinsonism among others.

Aventyl, the agency reminded Dr. Oberst, had been re-labeled to warn against its use in the treatment of children. Its known side effects include fall of blood pressure, tremors and bleeding into organs.

The FDA said in its letter that if Dr. Oberst wished to use these drugs in children, it would constitute an experiment and he would have to apply for a special permit.

Dr. Peters, head of the division of child and adolescent psychiatry at the University of Arkansas Medical Center, said he would suspend the use of Tofranil "until this is cleared up."

The discovery that the FDA had warned a doctor against the use of Tofranil in children came late in the day's testimony and after representatives of the agency had testified.

Dr. Dorothy Dobbs, the agency's director of the Division of Neuro-Pharmacological Drug Products, was asked whether she had investigated the use of drugs for behavior modification in Omaha. She said she had telephoned Dr. Oberst and determined that nothing irregular was taking place.

Dr. Oberst is one of several physicians in Omaha involved in a program for children with behavior and learning disabilities. Many of the children had been placed on amphetamines.

It was well after the testimony of Dr. Dobbs and several other FDA witnesses that the existence of the letter from the agency's legislative liaison, M. J. Ryan, was introduced by Theodore J. Johnson, a black chemist and Omaha resident. The letter had been addressed to Ernie Chambers, an opponent of the drug treatment approach to hyperactive children and an Omaha candidate for the Nebraska legislature.

"I am very disturbed," Gallagher said after Johnson introduced the FDA's letter. He charged that the agency had said that "everything is hunky dory" about using amphetamine-type drugs in children, only for the committee to discover later that two common drugs in such treatment are declared dangerous for children.

FDA officials could not be reached last night for comment, but Gallagher said before the hearing recessed that the agency would be recalled later.

Sally R. Williams, president of the Department of School Nurses of the National Education Association, was among those witnesses who said she felt stimulant drugs were safe if given to children under careful conditions.

But Gallagher hammered away throughout the day's testimony at the fact that amphetamines, commonly known as "speed," are a major cause of drug abuse in the United States.

The FDA witnesses had said there was no evidence of a link between drug abuse and the administration of such drugs to children.

Don Warner, retired assistant superintendent of schools in Omaha, said he was concerned that the national attention had made it appear that the school system was dispensing drugs. He said only private physicians prescribe the drugs.

ADDITIONAL COSPONSORS OF BILLS AND JOINT RESOLUTIONS

S. 343

At the request of Mr. CASE, the Senator from Ohio (Mr. SAXBE) was added as a cosponsor of S. 343, a bill to promote public confidence in the legislative, executive, and judicial branches of the Government of the United States.

S. 545

At the request of Mr. WILLIAMS, the Senator from Pennsylvania (Mr. SCHWEIKER) and the Senator from California (Mr. TUNNEY) were added as cosponsors of S. 545, a bill to improve and increase postsecondary educational opportunities throughout the Nation by providing assistance to the States for the development and construction of comprehensive community colleges.

S. 571

At the request of Mr. GRIFFIN, on behalf of the Senator from Kansas (Mr. PEARSON), the Senator from Florida (Mr. GURNEY), the Senator from Mississippi (Mr. EASTLAND), the Senator from Nebraska (Mr. CURTIS), the Senator from North Dakota (Mr. BURDICK), the Senators from South Carolina (Mr. THURMOND and Mr. HOLLINGS), the Senator from South Dakota (Mr. MCGOVERN), and the Senators from Utah (Mr. BENNETT and Mr. MOSS) were added as cosponsors of S. 571, to amend the Federal Meat Inspection Act relating to the importation of meat and meat products into the United States.

S. 662 AND S. 681

At the request of Mr. BELLMON, the Senator from South Carolina (Mr. HOLLINGS), the Senator from Illinois (Mr. PERCY), and the Senator from West Virginia (Mr. RANDOLPH) were added as cosponsors of S. 662, a bill to assist in the development of a more workable correctional system; and the Senator from Colorado (Mr. ALLOTT), the Senator from Kentucky (Mr. COOPER), and the Senator from Wyoming (Mr. MCGEE) were added as cosponsors of S. 681, a bill to provide for environmental research centers in the various States.

S. 731

At the request of Mr. JAVITS, the Senator from Indiana (Mr. BAYH) was added as a cosponsor of S. 731, a bill to make rules respecting military hostilities in the absence of a declaration of war.

S. 735

At the request of Mr. CRANSTON, the Senator from Indiana (Mr. BAYH), the Senator from Nevada (Mr. BIBLE), the Senator from Massachusetts (Mr. BROOKE), the Senator from Alaska (Mr. GRAVEL), the Senator from Oklahoma (Mr. HARRIS), the Senator from South Carolina (Mr. HOLLINGS), the Senator from Iowa (Mr. HUGHES), the Senator from Minnesota (Mr. HUMPHREY), the Senator from New York (Mr. JAVITS), the Senator from Washington (Mr. MAGNUSON), the Senator from South Dakota (Mr. MCGOVERN), the Senator from Minnesota (Mr. MONDALE), the Senator from Utah (Mr. MOSS), the Senator from Wisconsin (Mr. NELSON), the Senator from Rhode Island (Mr. PASTORE), and the Senator from New Jersey (Mr. WILLIAMS), were added as cosponsors of S. 735, to amend the National Housing Act to authorize the insurance of loans to defray mortgage payments on homes owned by persons who are temporarily unemployed or whose income has been drastically reduced as the result of adverse economic conditions prevailing in an industry or area.

S. 967

At the request of Mr. GRIFFIN, on behalf of the Senator from Kansas (Mr. PEARSON), the Senator from Alaska (Mr. STEVENS), and the Senator from South Dakota (Mr. MCGOVERN) were added as cosponsors to S. 967, to promote economic opportunity in communities and industries which suffer a reduction in defense-related production and employment caused by shifting patterns of Federal procurement and for other purposes.

S. 1082

At the request of Mr. CASE, the Senator from Indiana (Mr. BAYH) was added as a cosponsor of S. 1082, to regulate the discharge of wastes in territorial and international waters until 5 years after the date of enactment of this act, to prohibit such discharge thereafter, and to authorize research and demonstration projects to determine means of using and disposing of such waste.

S. 973

At the request of Mr. BAYH, the Senator from California (Mr. CRANSTON), the Senator from Montana (Mr. METCALF), and the Senator from Missouri (Mr. EAGLETON) were added as cosponsors of S. 973, a bill to improve the unemployment insurance compensation system.

S. 1163

At the request of Mr. KENNEDY, the Senator from New Mexico (Mr. MONTOYA), the Senator from Minnesota (Mr. HUMPHREY), the Senator from West Virginia (Mr. RANDOLPH), the Senator from Maine (Mr. MUSKIE), and the Senator from Indiana (Mr. BAYH) were added as cosponsors of S. 1163, the Nutrition Program for the Elderly Act.

S. 1167

At the request of Mr. Moss, the Senator from Indiana (Mr. BAYH) was added as a cosponsor of S. 1167, a bill to prohibit the mailing of unsolicited samples of cigarettes.

S. 1191

At the request of Mr. MATHIAS, the Senator from Oregon (Mr. HATFIELD) was added as a cosponsor to S. 1191, the Peacetime Transition Act.

S. 1245

At the request of Mr. Moss, the Senator from New Mexico (Mr. MONTOYA) and the Senator from New Jersey (Mr. WILLIAMS) were added as cosponsors to S. 1245, a bill relating to the preservation of historical and archeological data.

S. 1305

At the request of Mr. MONDALE, the Senator from South Carolina (Mr. HOLLINGS), and the Senator from Idaho (Mr. CHURCH) were added as cosponsors of S. 1305, a bill to amend the Economic Opportunity Act of 1964 to establish a Natonal Legal Services Corporation.

SENATE JOINT RESOLUTION 4

At the request of Mr. JAVITS, the Senator from West Virginia (Mr. RANDOLPH) was added as a cosponsor of Senate Joint Resolution 4, to authorize and request the President to proclaim the period April 19, 1971, through April 23, 1971, as "School Bus Safety Week."

SENATE JOINT RESOLUTION 29

At the request of Mr. SCOTT, the Senator from Oregon (Mr. HATFIELD) and the Senator from Colorado (Mr. DOMINICK) were added as cosponsors of Senate Joint Resolution 29, a joint resolution providing for the designation of National Peace Corps Week; and

At the request of Mr. MANSFIELD, the Senator from Minnesota (Mr. HUMPHREY) was added as a cosponsor of Senate Joint Resolution 29.

SENATE CONCURRENT RESOLUTION 10—SUBMISSION OF A CONCURRENT RESOLUTION PAYING TRIBUTE TO THE FIRST ANNUAL NATIONAL EXPLORERS PRESIDENTS' CONGRESS

Mr. MUSKIE. Mr. President, on behalf of myself and Senator BAKER, I submit, for appropriate reference, a concurrent resolution commemorating the first annual National Explorers Presidents' Congress of the Boy Scouts of America. This Congress will take place in Washington from June 2 to June 6 and is expected to bring together between 4,000 and 5,000 young people from Explorer posts around the country.

Mr. President, the Boy Scouts' exploring program provides a unique opportunity for more than 350,000 young men and women between the ages of 14 and 21 to gain firsthand knowledge of potential career fields such as law enforcement, local government, small business, and conservation, to name a few. Under the guidance of professionals in these fields, Explorers gain invaluable insights into their own career interests at the same time that they perform useful community services. I ask unanimous consent that the text of an article, "Exploring—A New Path to a Better America," that appeared in the October 1970 issue of Reader's Digest, be printed in the RECORD at this point.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

EXPLORING—A NEW PATH TO A BETTER AMERICA

(By John G. Hubbell)

The armed robber must have wondered what the Los Angeles police force had come to. He had just made a clean getaway with approximately $1000 from a customer of a branch of the United California Bank when he found himself in the unyielding clutches of three teen-agers in khaki uniforms. Unarmed themselves, they had, with quick, professional efficiency, relieved him of his .32-caliber pistol. Then two held him while the third summoned a squad car.

Later, the captors, Ron E. Miller, Paul Stephan and Wayne King, all 16, explained that they had just come off duty and were walking home, listening to police calls over a transistor radio. They heard of the robbery—and suddenly there was the robber, running toward them. They knew they should not try to capture an armed man—but it would have been a shame to let him escape. Anyway, weren't they supposed to be studying all aspects of Los Angeles police work?

The three young heroes and the Los Angeles Police Department are subscribers to a remarkable idea called Exploring. Though developed by the Boy Scouts of America (BSA), it has nothing to do with hiking, camping or merit badges. Exploring's aim is to enable young adults, 14 to 21, to find the fields of interest, to "try on" careers under lose but intensely interested expert guidance, while equipping themselves with healthy attitudes about one another, their country and the free-enterprise system.

The movement now involves more than 350,000 young men and women from across the entire American social and economic spectrum, and is expected to number one million by 1976, the 200th birthday of the Republic. BSAs enthusiastic partners in this adventure run the gamut of trades, professions, large and small businesses and industries from coast to coast—from hospitals to space-science companies to law offices.

For youngsters with strong notions about their futures, Exploring offers glistening opportunities. Since 1962, for example, more than 3000 young men have explored the law-enforcement field under the tutelage of professionals in the Los Angeles Police Department's 17 divisions. They undergo police-academy training, are issued L.A.P.D. recruit-type uniforms with Explorer patches, ride in patrol cars, learn police communications and study all phases of crime detection. "We are now beginning to get former Explorers onto the force," says their adviser, Officer Robert Portillo, "and we have 20 student-workers—college men who assume administrative duties." So successful has its Explorer program been that the Los Angeles force has answered requests from some 200 other towns and cities for advice and assistance in organizing similar efforts.

Meanwhile, Explorers in Mesa, Ariz., and Quincy, Ill., are absorbed in a top-to-bottom study of city government, from the functions and operations of the mayor's office to the city engineer's department. In Cambridge, Mass., Explorer firemen are led by professionals through an understanding of the chemistry of fire, the essentials of rescue work, and the operation, maintenance and repair of every kind of firefighting apparatus. In Coronado, Calif., tough U.S. Navy frogmen helped latch onto a group of miscreant teenage surfers, and develop an Explorer post which is fast becoming a source of oceanography and nautical-science experts. The boys also claim responsibility for policing and keeping clean for public enjoyment miles of Southern California beaches.

Even the sky is no limit to Exploring's possibilities. In Redondo Beach, Calif., TRW Corp. sponsors a coeducational group which spent more than two years in the company's laboratories designing and building a satellite. Piggybacked into orbit on a shot from Vandenberg Air Force Base, it will be available as a communications relay station to ham radio operators around the world.

The new Exploring got its real start in 1954. By then, it was apparent to BSA executives that their Explorer Scouting program, a sort of advanced Boy Scouting oriented to the outdoors, was dying for lack of interest. Of 20-odd million American teenage boys, only one in 20 was being attracted to Explorer Scouting. The University of Michigan's renowned Institute for Social Research was commissioned to conduct a nationwide survey of the attitudes and interests of boys 14 through 16. An accurate reading might provide the basis for a more successful approach.

The answers young America gave to the two-year study shocked the Boy Scout organization. They were told bluntly that if they wanted to succeed with teen-agers, they had to junk the existing Explorer Scouting program and start from scratch. That program was kid stuff—and they were no longer kids.

Where did their interests lie? The study showed that some 83 percent spent a good deal of time worrying about how they were to spend the rest of their lives, while 75 percent were already beginning to grapple with the vital decisions they would have to make after high school—about college, military service, careers, even marriage. Contrary to the popular adult notion that teen-agers, who are naturally rebellious, want to be left to themselves, 94 percent wanted adult leadership—but not of the Scoutmaster man-to-boy variety. Rather, they wanted close contact with and advice from men who had reached points in life where the boys thought they might like to go, men who would show them the fundamentals—not lecture, but show—and then step to the sidelines and let them run with the ball.

The study fired the imagination of William

H. Spurgeon III, of Newport Beach, Calif., a member of the national Explorer's Committee. Big, handsome, outgoing, Bill Spurgeon had been an active Scout leader all his adult life. He got permission from Boy Scout Headquarters to use some new ideas. One night in 1955, he gathered around his dining-room table a small group of friends who shared his enthusiasm for young people, including Kingery E. Whiteneck, a high-school science-department head, and Gilbert Bell, a professional Scout executive. By the small hours of the morning, a plan had been conjured.

From local high schools, Whiteneck recruited 25 lads who claimed an interest in science, and took them to see Jon Myer, a Hughes Aircraft executive. Then the two men prompted a discussion of the aspects of science the boys wanted to explore. Myer promised to provide working scientists who could supply expert advice for any experiments and projects they wanted to try—they could go as far as they wished on their own, but the expertise always would be available.

The boys soon decided to form the world's first Special Interest Explorer Post. They elected officers, agreed to meet in Myer's laboratories for two evening hours every second week, and mapped out a months-long agenda. After some searching, Myer was able to deliver on his promise to provide professional expertise. "It's difficult to get hard-working men interested in taking kids hiking and camping," he says. "But offer them the opportunity to share their professional knowledge with a group of interested teenagers, and it's like shooting them full of Adrenalin. You can't stop them!"

Among other things, the post in the next few years built and maintained a smog-monitoring station for Orange County, built an elaborate amateur radio station, and a fall-out shelter for the city of Newport Beach. At least seven members of the original post went on to earn doctorates in various sciences.

Meanwhile, Bill Spurgeon evangelized through Orange County, concerning all who would listen. "Every kid you see around here is up for grabs, and you had better be interested in who grabs him," he told them. "That's America's future you are looking at." Then, with a string of successful Exploring prototypes established in the West, Spurgeon, at the urging of Boy Scout National Headquarters and a group of California friends who financed him, took a three-year leave-of-absence from job and family to sell the program nationally.

Traveling all over the country, he left behind him a widening trail of Explorer posts. And soon it was apparent that a single man, even a Spurgeon, could not properly service the surging interest he had sparked. It was time for the national organization to take over. Thus, in 1968, Explorer Scouting, a term and activity which turned off the modern young adult, gave way to the Explorer Division of the Boy Scouts of America. Director John Clearhout assembled a staff of experienced but young, energetic professionals. "We organized a group of 'whiz kids,'" Clearhout explains, "who could take apart the studies that had been made, and the Spurgeon effort, then develop new schemes that would help preserve old values."

An example of this imaginative approach, the past few springs, students in hundreds of high schools have been asked to rate from a list of 100 career fields the three which appealed to them most. Soon, successful men who were known to be good citizens in communities across the country were being told, to their amazement, of the large numbers of young people who were interested in their work. By the beginning of this year, there were some 23,000 Explorer Posts in the United States.*

Exploring is happening everywhere, for reasons which should hearten Americans. If it has its way, upcoming generations—the ones we are always prone to despair over—will make tomorrow's America better than ever.

Mr. MUSKIE. Mr. President, I am proud to salute the first annual National Explorers Presidents' Congress, as well as all the outstanding young people who participate in the exploring program throughout the Nation. I ask that the text of the concurrent resolution appear in the RECORD following my remarks.

The ACTING PRESIDENT pro tempore. The concurrent resolution will be received and appropriately referred.

The concurrent resolution (S. Con. Res. 10), which reads as follows, was referred to the Committee on the Judiciary:

S. CON. RES. 10

Whereas the Exploring Division of the Boy Scouts of America will hold its first annual National Explorers Presidents' Congress in Washington, District of Columbia, from June 2, 1971, through June 6, 1971, at which time presidents from all national divisional posts will attend and represent local youth organizations and communities on a nationwide level.

Whereas such Congress will provide a living experience in the democratic process in that a national president and twelve regional vice presidents will be elected for one-year terms and thus become members of the Adult National Explorers Committee of the Boy Scouts of America; and

Whereas such Congress will afford Explorers the opportunity to demonstrate publicly their daily avocational and vocational interests, community participation, and youthful concern with today's national issues and problems: Now, therefore, be it

Resolved by the Senate (the House of Representatives concurring), That the Congress of the United States of America—

(1) welcomes Explorers of the Boy Scouts of America to their first annual National Explorers Presidents' Congress in the Nation's Capital from June 2, 1971, through June 6, 1971;

(2) urges these Explorers to witness first hand the structure and operations of their Government;

(3) calls upon them to use their Congress as a means of promoting the aims and advancing the aspirations of all young persons of the United States; and

(4) commends the Explorers for their example and for their part in training future leaders for our Nation.

SENATE CONCURRENT RESOLUTION 11—SUBMISSION OF A CONCURRENT RESOLUTION CONGRATULATING SAN JUAN, PUERTO RICO ON ITS 450TH ANNIVERSARY

Mr. MUSKIE. Mr. President, I submit, on behalf of myself and the Senator from New York (Mr. JAVITS), a concurrent resolution (S. Con. Res. 11) to commemorate the 450th anniversary of San Juan, Puerto Rico, the oldest city in the United States.

This commemoration is most appropriate, and I am honored to join in submitting this concurrent resolution. The American people are proud of San Juan, proud of its rich cultural heritage and proud of the unique role San Juan plays in joining the peoples of North, Central, and South America in a cooperative community.

The splendid harbor of San Juan is a gateway to the verdant plains and mountains of the Commonwealth of Puerto Rico and to our sister nations in the Caribbean and the Americas. Our American citizens in San Juan have shown fellow citizens throughout the United States the joyous celebrations of their fiestas and the industrial development resulting from their hard work.

I do not mean to overlook the pressing problems which San Juan shares with our other great cities, in housing, employment, health, and ecology. These are problems, but they are problems we can and must overcome, working together.

So, let us join with the wonderful citizens of San Juan in commemorating this joyous occasion. And let us wish the citizens of San Juan 450 more years of success.

The ACTING PRESIDENT pro tempore. The concurrent resolution will be received and appropriately referred.

The concurrent resolution (S. Con. Res. 11), which reads as follows, was referred to the Committee on the Judiciary:

S. CON. RES. 11

Whereas the city of San Juan, capital of the Commonwealth of Puerto Rico, commemorates this year the 450th anniversary of its founding on the same site where it is presently located;

Whereas its founding in the year 1521 makes it the oldest city in the United States;

Whereas, our fellow citizens in Puerto Rico, and the citizens of the United States generally, feel justly proud of the rich historical and cultural heritage contributed by the city of San Juan to the gigantic melting pot of different races, peoples, and customs that comprise our great American nations; and

Whereas, the citizens of San Juan, headed by the Governor of Puerto Rico, Hon. Luis A. Ferre, and the city mayor, Hon. Carlos Romero Barcelo, jubilantly celebrate the historical date: Now, therefore, be it

Resolved by the House of Representatives (the Senate concurring), That the Congress of the United States congratulates the citizens of the municipality of San Juan, and joins them in the joyful celebration of their 450th anniversary.

SENATE CONCURRENT RESOLUTION 12—SUBMISSION OF A CONCURRENT RESOLUTION TO RECOGNIZE THE 13TH ANNIVERSARY OF THE UNITED SERVICE ORGANIZATIONS, INC.

Mr. RANDOLPH. Mr. President, 30 years ago the darkening clouds of war around the world led to a massive build-up of armed forces. Literally millions of families were to be uprooted through the years ahead by separation, troop movements, and overseas assignments. The business of fighting World War II was in the capable hands of the various services, but the attendant disruptions of human beings could not be ignored. Filling this breach was the United Service Organizations, Inc.—USO—which was created on February 4, 1941, through the efforts of five voluntary groups. They are: YMCA, YWCA, National Catholic Community Service, National Jewish

*Among the many fields of interest and study: medicine, law enforcement, forestry, conservation, oceanography, marine biology, banking, automobile mechanics, electronics, photography, merchandising, marketing, journalism and advertising, radio and TV.

Welfare Board, and the Salvation Army. They were later joined by the Travelers Aid Association of America.

Throughout the years, the USO has provided a "home away from home" for millions of young men and women stationed all over the world. Its function, supported by private funds and the help of hundreds of thousands of volunteers, has provided necessary welfare, morale, and recreational services to our servicemen and servicewomen.

Today, the USO continues to battle isolation and boredom among our service personnel. There are more than 124 facilities in the United States and 62 points of service overseas to provide a wide range of services, such as assistance in securing housing facilities for military families, help with travel and accommodations, lounges at terminal points, entertainment and personal care facilities.

Mr. President, I offer in recognition of the USO's 30th anniversary, the following concurrent resolution with the hope that the USO will continue to receive the support of all citizens so that this fine organization—an outstanding example of interfaith action and cooperative social service—will continue to serve the members of our Armed Forces.

The ACTING PRESIDENT pro tempore. The concurrent resolution will be received and appropriately referred.

The concurrent resolution (S. Con. Res. 12), which reads as follows, was referred to the Committee on the Judiciary.

S. CON. RES. 12

Resolved by the Senate (the House of Representatives concurring), That in recognition of the service and assistance the United Service Organizations, Inc. (USO), has rendered to the members of the Armed Forces of the United States, and as a tribute to the USO in its thirtieth anniversary year, the Congress commends the USO for its outstanding contributions to the morale and welfare of our Armed Forces.

ADDITIONAL COSPONSORS OF CONCURRENT RESOLUTIONS

SENATE CONCURRENT RESOLUTION 5

At the request of Mr. BROOKE, the name of the Senator from New York (Mr. BUCKLEY), the Senator from Virginia (Mr. BYRD), the Senator from North Dakota (Mr. BURDICK), the Senator from Nevada (Mr. BIBLE), the Senator from California (Mr. CRANSTON), the Senator from New Jersey (Mr. WILLIAMS), the Senator from Tennessee (Mr. BAKER), the Senator from Missouri (Mr. EAGLETON), the Senator from South Carolina (Mr. HOLLINGS), the Senator from Illinois (Mr. PERCY), and the Senator from Idaho (Mr. CHURCH), were added as cosponsors to Senate Concurrent Resolution 5, creating a joint committee on the treatment of prisoners of war/missing in action.

SENATE CONCURRENT RESOLUTION 6

At the request of Mr. KENNEDY, the Senator from Indiana (Mr. BAYH) was added as a cosponsor of Senate Concurrent Resolution 6, to express the sense of Congress relative to certain activities of Public Health Service hospitals and outpatient clinics.

SENATE RESOLUTION 82—SUBMISSION OF A RESOLUTION REGARDING THE POLICY OF THE UNITED STATES TOWARD THE PEOPLE'S REPUBLIC OF CHINA

Mr. McGOVERN. Mr. President, aside from ending our disastrous intervention in Indochina, there is no more pressing foreign policy task facing this country than to achieve fundamental change in our attitude toward the People's Republic of China.

In no other case have we clung so tenaciously, in both word and deed, to profound error. And in no other case has our policy done graver damage or posed more serious threats to our own interests.

For 20 years we have tried to isolate the world's most populous nation. We have experienced a generation of intense mutual hostility.

Yet there have been more constructive times.

Before 1949 we traded extensively with China. Chinese students attended American universities. We had proclaimed a strong, united, and independent China as a positive goal of U.S. policy.

For the most part our attitudes were reciprocated. The Chinese regarded us with friendship, at least in comparison to their propensities toward Japan, Russia, and Britain. And that good will was not based on ideology, as evidenced by Mao Tse-tung's statement in March of 1945:

> Between the people of China and the people of the United States there are strong ties of sympathy, understanding and mutual interest. Both are by nature peace-loving non-aggressive and non-imperialistic . . . America is not only the most suitable country to assist the economic development of China; she is also the only country fully able to participate.

But after completing, in alliance with Russia and China, a long and bloody war against Japan and Germany, we were soon enmeshed in a bitter competition with communism. We had seen its expansion in 1945 when the victorious Russian armies swept through Eastern Europe to establish Communist governments in Poland, Hungary, Rumania, Bulgaria, Yugoslavia, Albania, and later East Germany. Moreover, the war left Western Europe lying economically prostrate and in obvious danger of Communist influence.

The Marshall plan was designed to rebuild Europe, but it was also constructed as an economic counterweight to communism. The North Atlantic Treaty Organization was formed, with the added impetus of the fall of Czechoslovakia in 1948, to perform the same mission in the military sphere.

It was against this background that we saw the victories won by Communist armies in China in 1948 and 1949. We were conditioned to perceive a monolithic Communist menace sweeping the world, and to lose any perception of individual countries, with individual interests, within that realm. We saw any adherence to the ideology of communism, no matter where, as a political and military alliance with Moscow, committed to the subversion and destruction of freedom everywhere.

Under such conditions it may, in fact, be surprising that we did "keep our cool" briefly with respect to the Chinese revolution. From the Communist assumption of power on the mainland on October 1, 1949, until late June 1950, we followed a general wait and see policy toward the new government. On the very point which was to become most bitterly divisive later on, President Truman declared on January 5, 1950, that the United States regarded Formosa as Chinese territory without qualification and that—

> The United States has no predatory designs on Formosa or any other Chinese territory. The United States has no desire to obtain special rights or privileges or to establish military bases on Formosa at this time, nor does it have any intention of utilizing its armed forces to interfere in the present situation. The United States Government will not pursue a course which will lead to involvement in the civil conflict in China . . . similarly, the United States government will not provide military aid or advice to the Chinese forces on Formosa.

Truman's initial policy was destined to quick reversal. It brought sharp attacks in the United States, and particularly in the Congress. Led by Congressman Walter Judd of Minnesota, a former medical missionary to China, a lobby was formed in alliance with the defeated Kuomintang government which had taken refuge on Formosa. They attacked the policy that had lost China, apparently having little difficulty with the ludicrous assumption that China was ours to lose. And they asserted that Chiang Kai-shek, notwithstanding his defeat, was still the legitimate ruler of China, fated ultimately to return and liberate the mainland.

With the help of the China lobby, Washington was easily turned around by the Korean war. We saw the attack by the North Koreans against the South as the first in a series of moves by the new Chinese government to build an empire in East Asia, just as the Soviet Union had done in Eastern and Central Europe. In response, Secretary of State Dean Acheson recommended that the 7th Fleet be ordered to prevent an attack on Formosa—placing the United States directly in the middle of the Chinese civil war—and that aid to Indochina be increased, including a strong military mission from the United States. Shortly thereafter, General MacArthur traveled to Taipei to consult with Generalissimo Chiang Kai-shek.

Our avowed aim in the initial stages of the Korean war was strictly limited, to secure the boundary at the 38th parallel which separated North and South Korea. However, MacArthur was gradually given more latitude to pursue the destruction of the North Korean Army, first by way of the Inchon landing and then across the 38th parallel. Finally he raced toward the Yalu River—to the border of China. MacArthur and other military and political leaders discussed the possibility of pressing on into Chinese territory. Several Chinese cities were bombed.

Meanwhile, in response to a cable from the Joint Chiefs of Staff expressing fears about Chinese intervention, General MacArthur replied:

There are many fundamental logical reasons against it.

We now have fairly conclusive proof—agreed upon by both Ambassador Averill Harriman and former Russian Premier Nikita Khrushchev—that it was the Russians, not the Chinese, who urged the North Koreans to attack the South. The available evidence suggests, in fact, that the Chinese were not even informed until after the attack had occurred, and that they were in no way a party to it.

It is also quite clear now—particularly in light of today's protective reaction language—that when the Chinese did enter the war it had little to do with an interest in subjugating other Asian countries. Instead, they were motivated by the fear of invasion by American and allied forces.

Our conception of China's role in Korea was wrong. We were taken in by our own fears, and we suffered from the fatal miscalculations of an overzealous American general encouraged by vocal Members of Congress.

Yet a policy born in error has persisted for 20 years. The position urged by the China lobby became a firmly entrenched national policy—perhaps a national passion—embraced by five successive administrations of both parties. It is our position today.

Politically we still assert that the People's Republic of China does not exist or that it is, at most, a temporary apparition. We hold that the forces of Chiang Kai-shek on Formosa still represents 750 million people on the mainland. On the basis of that premise we have withheld recognition from Peking, we have opposed its assumption of China's seats in the United Nations General Assembly and on the Security Council, and we have squandered our prestige and our resources to obtain the cooperation of other nations in perpetrating our myth.

We have further sought to isolate and damage China economically, not only by denying her our own trade in virtually all commodities but also by threatening to withhold our trade and aid from third countries which do not respect the embargo.

Militarily we have endeavored to contain China by encircling her with hostile anti-Communist governments—even, as in Vietnam, when the governments we prefer have no claim to the allegiance of their own people and can remain in power only with massive U.S. backing.

NO CHOICE BUT CHANGE

Under any reasoned assessment our China policy has been a spectacular, costly failure.

Its architects and advocates have presented us with:

Two land wars in countries bordering China;

A military buildup which has reached nearly a million men on the eastern and southern borders of China;

The continued occupation by American ground or air forces of every country on those eastern and southern borders of China from Japan through Korea, Taiwan, Okinawa, the Philippines, South Vietnam, Cambodia, Laos, and Thailand;

Over 100,000 American dead in East Asia, and more than five times that many Americans wounded;

The physical devastation of broad areas of Korea, Vietnam, Laos, and Cambodia;

Direct responsibility for several million dead and wounded Asian women, children, old men, and other noncombatants who have found themselves on our anti-China battlefield;

The alienation of large segments of our own society who see the war in Indochina as an illegal, immoral venture; and

The distortion and disruption of our national economy, with an accompanying neglect of urgent domestic priorities.

Yet the People's Republic of China survives, grows stronger, and is recognized as reality by a steadily increasing proportion of the world community.

The illogic, the costs, and the failure of our policy should be enough to convince us that it ought to be changed.

But in 1971 we have still more reasons for reconsidering the issue. Its disadvantages are now being combined with impossibility. Today the question is less whether we have the wisdom to change than how we will deal with change thrust upon us.

In the United Nations we watch the gradual erosion in the number of countries willing to suport our view that Peking should be excluded. In November of 1970 a clear majority of 51 members voted for a resolution to expel Chiang Kai-shek's representative and to offer the China seats in the General Assembly and on the Security Council to Peking. The resolution failed only because a majority agreed that the issue is an "important question" requiring two-thirds approval, but support is diminishing rapidly on that score as well. In the past year diplomatic relations have been established between China and Canada, Italy, Ethiopia, Chile, and Guinea; other countries which have supported us in the past are actively considering similar arrangements.

Within a very short period of time the People's Republic of China will be seated in the United Nations regardless of the position taken by the United States.

China also demands our attention in a military sense. Her first nuclear device was detonated more than 6 years ago, and she was able to develop a thermonuclear capability just 3 years later. Within a few years she will have the capacity to wage intercontinental nuclear war.

At the time of the first test Peking made a unilateral commitment never to be the first to use nuclear weapons—something the United States has never done. The Chinese also advocated the complete destruction of nuclear weapons and the creation of nuclear weapons free zones.

Yet our policy of ignoring and isolating China has meant that she has been excluded from all arms control negotiations, including those presently underway in Vienna. We practice a paradox by arguing that China is a dangerous, irresponsible entity, while at the same time depending solely upon her own restraint and good sense to prevent nuclear recklessness. If we mean seriously to achieve control over these ominous weapons, then we must encourage the sober and responsible attitudes among China's leaders and invite their help in protecting all of mankind from the risk of nuclear war.

A third condition compelling genuine change in our China policy is our own yearning for disengageemnt from a deep military involvement in Indochina. For if we remain determined to encircle China, and if that remains our primary goal in the region, then it is a fraud to pledge "no more Vietnams" and it is a fraud to promise an end to U.S. participation in the fighting in Indochina today.

Most of us recognize, after all, that the burning desire for Vietnamese self-determination used to justify our policy there now had little bearing on our decision to replace the French in that unhappy land. On the contrary, we opposed self-determination for the Vietnamese as provided in the elections promised by the 1954 Geneva agreement. We entered Vietnam, in Secretary of State Dean Rusk's words:

To prevent . . . hundreds of millions of people in the free nations of Asia from being under the deadly and constant pressure of the authorities in Peking.

Vice President AGNEW has defended the Nixon administration's Vietnam policy in still more hysterical terms, picturing a "Red Peking tidal wave engulfing all of Asia and Southeast Asia."

Both statements bring to mind a drawing by the perceptive cartoonist for the Chicago Sun Times, Mr. Bill Mauldin. He pictures a pockmarked battlefield still under U.S. bombardment. Two Vietnamees are in a crater seeking shelter from the bombs and rockets crashing overhead. One is saying to the other:

If it's China they're after, let's send them a map.

It is China we have been after. Without that purpose no American policymaker could ever convince anyone that the conflict among warring factions of Vietnamese so affected our national interest as to demand direct American involvement.

And it is, therefore, impossible to escape the conclusion that the Nixon doctrine, if confronted with the same conditions that faced President Eisenhower in 1956, President Kennedy in 1961, and President Johnson in 1964, would have led to similar American actions or, in light of President Nixon's affinity for "decisive moves," perhaps to an even more disastrous course. The war in Vietnam is the product of our China policy, and unless that policy is changed we can expect no respite from the threat of military involvement on the Asian mainland.

TOWARD A NEW CHINA POLICY

According to Arthur Schlesinger's account of the Kennedy Presidency, "A Thousand Days," President John F. Kennedy told his United Nations Ambassador Adlai E. Stevenson in 1961:

You have the hardest thing in the world to sell. It really doesn't make any sense—the idea that Taiwan represents China.

The Nixon administration has, to its credit, indicated some willingness to examine the issues which divide the United States and China, although the signals have been clothed in ambiguity.

But if the winds of change are stirring, then we should hasten to recall President Kennedy's words. There is, I believe, a serious danger that we will, out of inertia, a desire to save face, or similar motivation, respond to the demand for change with new artificial formulas and schemes which would leave the old myths untouched—and the old, deadly animosities unaffected.

Two such schemes are currently receiving widespread circulation—the so-called two Chinas and one China-one Taiwan formulas. Their terminology differs, but they propose essentially the same solution to the question of United Nations membership. Both governments—in Peking and Tapei—would be invited to sit in the United Nations.

Such formulas fail completely to address the fundamental issue and the central source of dispute between the United States and the People's Republic. They would leave unaffected our involvement in the remnants of the Chinese civil war.

Late last year the noted journalist Edgar Snow interviewed Chinese premier Chou En-lai. Snow reported that the Taiwan question remains the crux of the matter. He quoted Premier Chou:

> Taiwan is China's internal matter and the Chinese people alone have the right to liberate it. United States armed aggression there is another question, an international question, and we are ready to negotiate on that. The door is open, but it depends on whether the United States is serious in dealing with the Taiwan question.

To fully understand Chinese attitudes on this score it may be helpful to draw a hypothetical parallel in which our own interests are at stake.

Suppose that after the United States civil war Jefferson Davis had retreated to Long Island, subjugated the population of that island, and then asked the most powerful navy in the world, the British navy, to protect him from the Mainland Americans. Suppose that the British, in response, sent their navy to form an East River patrol to protect the island, and that they also sent enormous amounts of economic and military aid.

If there had been an international organization in the mid-nineteenth century Britain would have been the dominant member. Suppose that in addition to withholding diplomatic recognition from the United States and granting it to Jefferson Davis, she also insisted that the government she favored should occupy the American seat in the world body.

We would be unquestionably enraged at the interference in our internal affairs. And while we might consider normalized relations with other nations, even though they might seek to avoid a direct position on the matter, it is certain that we would find little room for accommodation with Britain so long as that primary issue remained unsettled.

While the lines are less rigid between China and other non-Communist countries, therefore, we have no choice but to address this fundamental issue if we seek improved relations with the People's Republic. And the "two Chinas" and "one China-one Taiwan" solutions make little sense except as attempts to avoid reality.

The truth is that the Chinese civil war is over and it will not likely be undone. We do not have to be pleased by the results in order to recognize what they are.

And once we do recognize that fact we are hard pressed to come up with any plausible explanation for a continued commitment to Chiang Kai-shek's regime. To do so we must adopt a novel doctrine that allows international commitments not simply between one country and another, but between one country and an individual or group of individuals who represent no country at all.

It is true that we have on occasion argued that the status of Taiwan was not legally settled by the Cairo and Potsdam declarations which returned Taiwan to China. It has been asserted that since these agreements among World War II allies were not validated by any treaty following the war, the status of Taiwan becomes an international matter.

But the United States is in an odd position to make such an argument, since by doing so we plead guilty to supporting and helping to solidify aggression by Chiang Kai-shek and his followers when they took control of Taiwan, with brutal force, in 1949. For 20 years the wishes and interests of the 12 million natives of Taiwan have been subjugated to the arbitrary rule of Chiang and his 2 million followers from the mainland. It is significant, moreover, that both Peking and Taipei agree that Taiwan belongs to China; both may oppose any solution which would separate the two.

The "two Chinas" and "one China-one Taiwan" proposals would merely put new myths in the place of old ones. Confronted with the irresistible need for change we should, instead, search for policies which will respond directly to the realities we have so long avoided, and which will clearly signal our interest in achieving the kind of relations which should prevail between mature societies.

The first step should be to address without equivocation the question of Chinese representation in the United Nations.

Prior to the next General Assembly meeting, we should encourage majority support for a resolution declaring that the People's Republic of China is the proper occupant of the China seats in the United Nations General Assembly and on the Security Council.

Second, the President of the United States should be prepared to recognize Peking as the sole legitimate government of China, leaving the future status of Taiwan to a peaceful resolution among the people on both sides of the Taiwan Straits. The President should seek early formal negotiations toward that end.

In light of widespread concern on this point, let me make clear that neither of these positions dictates the future status of the people of Taiwan. The United States need not be bound by an inflexible position on that question because it must, in the final analysis, be resolved by the people who are directly involved.

It should be noted, however, that our present policy of support for Chiang's government prevents meaningful self-determination for the Taiwanese majority including the possibility of peaceful discussions with Peking.

Third, our position on trade with China should be placed on the same footing as U.S. trade with the Soviet Union and other communist nations in Eastern Europe.

Fourth, as an effort to initiate travel and cultural contacts an invitation should be made for visitations to the United States by Chinese scientists, officials, newspapermen, and similar groups. We should begin, as well, to encourage Americans, and particularly members of the American Chinese community, to seek visas to travel to China.

Beyond these steps bearing exclusively on United States-China relations, we should take two additional actions which, although they have a major influence on that question, are also justified strongly on independent grounds.

First, we should move as speedily as possible to end our involvement in the war in Indochina, by announcing and holding to a timetable for the withdrawal of all of our ground, air, and naval forces from that conflict.

Second, we should forego any plans to construct an area defense antiballistic missile system aimed at undermining a potential Chinese deterrent force. The Nike-X-Sentinel-Safeguard technology cannot protect our population against even moderately sophisticated delivery systems in any case. We, therefore, have little to gain and much to lose by continuing a vain effort to deny China the same deterrent protection we consider prudent and responsible for ourselves.

FUTURE PROSPECTS

It is wrong to conclude that the hard dividing line between the United States and China bears an exclusively American trademark. In the early and middle 1950's the China side of the line was more flexible, but the United States—in the tortuous grip of the McCarthy era—was incapable of accommodating. By 1957 the Chinese had become more rigid, and had begun talking of the inevitable conflict between communism and capitalism. Since then both sides have been unalterably acrimonious, each one reinforcing the other.

It is, therefore, entirely unrealistic to assume that any new policy we might adopt can lead to a quick resolution of our differences. The initiatives I have suggested would remedy fundamental wrongs in our own approach. But they would leave profound differences of outlook and interest. We should not expect that China will quickly discard beliefs about the United States which have become so firmly entrenched.

But though we cannot expect speedy reconciliation, neither do we need fear that dreadful results will flow from a new American posture.

If we can see past bellicose rhetoric, we find that China has performed with caution in international affairs. On most points she has been no more aggressive than we might have expected a non-Communist Chinese government to be.

The 2.7 million men of the Chinese army are stationed entirely within China's borders and they are, particularly since the cultural revolution, as much civil servants as soldiers.

When China has been directly involved beyond her own territory—in India, Tibet, and Korea—the clear purpose has been to claim disputed territory or to protect her own national boundaries rather than to advance communist ideology or conquer her neighbors by force. In the "rape of Tibet" which is frequently cited as evidence of brutal Chinese expansionism, it is significant to note that her actions had the support of Taipei and that both groups viewed the move as reclamation of territory which the British had "stolen" from China years before.

In Asia, China doubtless seeks removal of visible threats to her security—including some 600,000 American men within quick striking distance of her borders, and Americans engaged in active combat in adjacent countries. She doubtless seeks a willingness among her neighbors to recognize China as a dominant Asian power, and to practice international neutrality regardless of their internal forms of government.

But there is no significant evidence to support the claim that China threatens to engulf Asia. Moreover, the evidence that she could, regardless of her ambitions, is to the contrary. She would experience as much difficulty with the forces of nationalism in Asia as we—and the Dutch, the British, the Japanese, and the French before us—have already encountered to our sorrow.

China has offered limited material and moral support to revolutionary activities in other countries, not only in Asia but in Africa and Latin America as well. But the main form of involvement has been verbal, for both practical and ideological reasons. China has been preoccupied with enormous internal problems. Moreover, her doctrine on world revolution, as set forth in the heavily analyzed writings of Defense Marshall Lin Piao, emphasizes self-reliance and nationalism and implies that the chances for revolution are best if the battles are fought with indigenous forces. China is portrayed as a model and the October revolution as an inspiration. But if China aspires to be the ideological center of worldwide revolution, she seems to cherish with equal force her status as noncombatant. Perhaps both countries would profit, in fact, if we were to interpret and practice the Nixon Doctrine as the mirror image of Peking's international posture.

China's development of nuclear weapons will give her increased influence in all of these areas, and it is certainly a prospect which cannot be lightly dismissed. If we regard Chinese official statements as having any bearing at all, however, we should notice that they have consistently stated that they seek no more than reliable defense against nuclear attack. Thus, the New China News Agency described the 1964 test in the following terms:

> China cannot remain idle and do nothing in the face of the ever increasing nuclear threat posed by the United States. China is forced to conduct nuclear tests and develop nuclear weapons. . . . The development of nuclear weapons by China is for defense and for protecting the Chinese people from the danger of the United States launching a nuclear war.

Such language is, of course, consistent with China's "no first use" pledge.

But perhaps more reassuring is the fact that in the foreseeable future, China will not have the capacity to produce a nuclear force sufficient to undermine our deterrent. We will in the foreseeable future have the power to assure that any Chinese use of nuclear weapons will bring instant overwhelming retaliation. This will be true regardless of whether the steps I have proposed become part of American policy.

Mr. President, I make no pretense that the course I recommend is without risk. It asks that we offer major political concessions to a society which now sees inevitable conflict between our two systems.

But we have no risk-free options in Asia.

We have seen the tragic results of the old policy. We can see that it offers an even darker and more dangerous future. And we should be able to see that it is not a policy of accepting risks to assure the peace; it is a policy which would invite disaster simply to avoid reality.

For 20 years we have contested the very existence of the People's Republic of China. We have been involved for a generation in her civil war.

The dispute will continue. There may be irreconcilable differences between our two systems.

But it is time we moved the dispute to a different level.

Let us challenge Chinese leaders to respond to our initiatives to peace. As we offer understanding of the factors which have most damaged Chinese attitudes toward us and our system, let us challenge Chinese leaders to understand the deep fears and concerns and the domestic political aberrations which have inspired our own past policy.

Let us offer them a share of the urgent challenge facing all nations, to develop realistic means for the prevention of war, for the control of deadly weapons, and for the peaceful settlement of international disputes through principles of equity and justice.

And let us invite them to a vigorous competition to see which of our systems can best meet the needs and advance the aspirations of its own people and contribute to those same goals for people throughout the world.

Mr. President, I submit for appropriate reference a sense of the Senate resolution with respect to U.S. policy toward China, and I ask that it be printed at this point in the RECORD.

The ACTING PRESIDENT pro tempore. The resolution will be received and appropriately referred.

The resolution (S. Res. 82), which reads as follows, was referred to the Committee on Foreign Relations:

S. RES. 82

A resolution to express the sense of the Senate regarding the policy of the United States toward the Peoples' Republic of China

Whereas it is vital to international peace and prosperity that the Peoples' Republic of China, the world's most populous nation, assume its rightful place in the community of nations, and

Whereas it is the declared policy of the United States to seek normalization of relations with the Peoples' Republic of China: Now, therefore be it

Resolved, That it is the Sense of the Senate that, at the next meeting of the General Assembly of the United Nations, the United States should support a resolution acknowledging the fact that the Peoples' Republic of China is the sole representative of China in the General Assembly, the Security Council, and all other organs of the United Nations.

It is further the Sense of the Senate that the President of the United States should seek negotiations toward the establishment of diplomatic relations with the Peoples' Republic of China, and should announce that the United States is prepared, through such negotiations, to recognize the Peoples' Republic as the sole legitimate government of China, leaving the future status of Taiwan to a peaceful resolution by the people on both sides of the Taiwan Straits.

It is further the sense of the Senate that the United States should seek to eliminate Sino-American tensions by placing trade with China on the same basis as trade with the Soviet Union, by inviting scientists, scholars, officials, journalists, artists and other persons from China to visit the United States, and by removing existing restrictions upon American travel to China and Chinese travel to the United States.

SENATE RESOLUTION 83—SUBMISSION OF A RESOLUTION AUTHORIZING THE PRINTING OF "NATIONAL PROGRAM FOR THE CONQUEST OF CANCER"

Mr. WILLIAMS. Mr. President, I submit, for appropriate reference, a resolution authorizing the printing of the report entitled "National Program for the Conquest of Cancer" as a Senate document.

The ACTING PRESIDENT pro tempore. The resolution will be received and appropriately referred.

The resolution (S. Res. 83), which reads as follows, was referred to the Committee on Rules and Administration:

S. RES. 83

Resolved, That the report entitled "National Program for the Conquest of Cancer," prepared for the Committee on Labor and Public Welfare by the National Panel of Consultants on the Conquest of Cancer (appointed pursuant to Senate Resolution 376, agreed to April 27, 1970), be printed with illustrations as a Senate document.

SEC. 2. There shall be printed three thousand additional copies for the use of the Committee on Labor and Public Welfare.

SENATE RESOLUTION 85—SUBMISSION OF A RESOLUTION AUTHORIZING THE PRINTING OF "ECONOMICS OF AGING: TOWARD A FULL SHARE IN ABUNDANCE"

Mr. CHURCH. Mr. President, I submit, for appropriate reference, a resolution authorizing the printing of additional copies of Senate Report 91–1548, entitled "Economics of Aging: Toward a Full Share in Abundance."

The ACTING PRESIDENT pro tempore. The resolution will be received and appropriately referred.

The resolution (S. Res. 85), which reads as follows, was referred to the Committee on Rules and Administration:

S. RES. 85

Resolved, That there be printed for the use of the Senate Special Committee on Aging six thousand additional copies of its report to the Senate of December 31, 1970, entitled "Economics of Aging: Toward a Full Share in Abundance" (S. Rept. 91–1548).

SENATE RESOLUTION 86—SUBMISSION OF A RESOLUTION RELATING TO STRATEGIC ARMS NEGOTIATIONS

Mr. BAYH. Mr. President, 18 months ago, when the Strategic Arms Limitation Talks—SALT—first began in Helsinki, there were hopes that they would lead with reasonable promptness to steps that would slow the nuclear arms race. Many thought that, for an auspicious moment, technology was at a stage which made an end to that race uniquely negotiable.

Since then there have been three rounds of discussions, and a fourth is now beginning. These conversations have been carried on in a serious, business-like manner relatively free from the polemics which have seemed at other times and on other issues to be an intrinsic part of the process of East-West negotiation. Undoubtedly this has been an indication that the Soviets—like ourselves—realize that these talks are too important and too complex to be burdened by political posturing.

Despite these favorable signs, press analyses of the last round of talks in Helsinki indicate that progress has ground to a halt. This point is underscored by the fact that the President now expresses his own optimism about SALT in terms of an eventual agreement.

Apparently, the proposal which our delegation presented last summer, including limitations on both offensive and defensive strategic weapons, became impaled on the question of what constitutes an offensive strategic weapon as well as the problem of MIRV's—Multiple Independently-Targeted Re-entry Vehicles. In light of this the Soviet delegation proposed an agreement about defensive weapons only—antiballistic missiles. Our Government has taken the position that such an agreement was unacceptable—and there matters stand.

Each of us may have his own appraisal of why SALT has not been more productive. But there are two facts on which I think we can agree. First, if things continue as they have over the past 18 months, the chances of meaningful agreement in the foreseeable future are slim. Second, unlike some international issues about which delay does not necessarily reduce the chances of meaningful agreement, delay in the area of strategic arms is narrowing the effectiveness of any possible agreement and making its negotiation more difficult.

In this regard, the deployment of MIRV's by the United States since the beginning of SALT and the possible first tests of MIRV's by the Soviets have made the negotiation of a verifiable agreement about them extremely difficult. The massive Soviet SS–9's and the possibility of their resumed deployment and improvement have also added to the problem. The existence and expansion of ABM systems on both sides could have a similar but much more serious effect on our chances of controlling the arms race.

The resolution I am introducing is a simple one. It respectfully urges the President immediately to undertake negotiations with the Government of the Union of Soviet Socialist Republics for the purpose of entering into an agreement with that Government to ban or restrict to a small number and a limited geographical area the deployment of an anti-ballistic-missile system, including related radar installations, as part of our continuing effort to limit offensive and defensive strategic weapons.

An agreement stopping ABM deployment at a low level can—by itself—do much to halt the upward spiral of the arms race. It would eliminate the temptation to believe that by creating an effective enough ABM, one could attain a capacity to survive a nuclear exchange. Perhaps more importantly, it would relieve the fear that the opponent, because of the efficiency of his ABM might, in fact, be attaining such a capability. It is uncertainty about the adversary's ability to survive nuclear warfare—and therefore his willingness to risk it—that is most destablizing. It is that uncertainty which compels both sides to keep improving and expanding offensive and defensive weapons.

The MIRV's which we have been deploying and which the Soviets are testing will eventually constitute a threat to land-based nuclear weapons. When the number of warheads is multiplied several times and the guidance systems are accurate enough, MIRV's will have the capability of destroying ICBM's in their silos. That may well eliminate the second strike capability—the deterrent effect—of land-based ICBM's. This is one reason why an agreement about MIRV's has been uppermost in the minds of so many thoughtful Americans. Developments of the past 2 years have made the chances of such an agreement remote. However, I urge that our Government make a serious effort—even at this late hour—to negotiate an end to the process of MIRV'ing. We could do this either through mutual restraint, for instance by a freeze on all such types of weapons, or through a specific agreement.

But MIRV's, as dangerous as they are, represent no threat to the submarine-based deterrent. Their potential effect is to eliminate only the land-based missiles as deterrents. Of the weapons currently before us, only ABM, gradually expanded and made more efficient, could stop both land and sea-based incoming missiles—ending the deterrent effect of both.

Furthermore, the rationale for U.S. deployment of MIRV's was the belief that multiple warheads would be needed to penetrate the ABM system the Soviets were then building. It is possible that our start on an ABM system, which we made clear could grow to be an area defense of the whole country, played a similar role in Soviet decisions to continue SS–9 deployment and develop MIRV's. If we could agree to stop ABM's we would remove self-protection as a reason for deploying more and more sophisticated offensive weapons. Each side's capacity to destroy the other would remain a certainty, and deterrence would be assured. But we would have broken the action-reaction cycle which has kept the nuclear arms race going.

In budgetary terms such as a result could save the American people perhaps $10 billion of the $12 billion the Safeguard system is estimated to eventually cost. What would be saved in cost-overruns and add-ons can only be guessed. Similarly, we can only speculate on what we might save if assurance that the Soviet ABM system would not expand made further American offensive deployments unnecessary. I need hardly point out to this body the other uses to which such savings might be put.

This is not to suggest that an ABM agreement only is better than agreements covering such items as MIRV's and SS–9's—as well as ABM. But it is to suggest—as strongly as I can—that an agreement about ABM's is far better than no agreements at all. That is the situation which exists today and which, I fear from the press reports and the President's words, could be the situation for many months to come. If the talks continue stalemated on the issue of what offensive weapons should be included in a comprehensive agreement, then a new approach focusing on defensive weapons alone should be pursued.

The generality of this resolution is intentional. It should not be our purpose to dictate to the President the kind of ABM agreement to be negotiated. Our two points of concern are, first, that such agreement limit any ABM system in size and scope so that it does not erode deterrence and, second, that it include a limitation on radar.

It is my understanding that the Soviet proposal did not specifically mention radar. But the United States should insist that a limitation on ABM radar as well as interceptor missiles be spelled out, and for this reason: Once the radar for ABM is deployed, the installation of interceptor missiles and the operational status of the system can quickly follow.

One can perceive a variety of ABM agreements which, depending upon the circumstances, would be suitable. There could, for example, be a complete ban on ABM's. That would provide the highest degree of deterrence and afford the greatest savings.

We could agree on national capital systems only—the Soviets retaining theirs around Moscow and we building one around Washington. Some of our experts feel that even if we reached such an agreement, it would be wasteful to build a Washington area ABM. But that is a question to be considered later.

Alternatively, we could agree to freeze the situation upon completion of Safeguard Phase I. That would leave the Soviets with their current Moscow ABM, and we would have ABMs at two of our Minuteman bases.

There are a number of variations which might serve the essential interests of both sides. This resolution neither precludes nor prescribes any of them. Instead, it indicates the Senate's awareness that ABM agreement may be negotiable now and that such an agreement would be an important contribution to our national security.

Whether we are for or against an ABM of one kind of another, we can all agree with the President's statement in his foreign policy message, that "some limits on ABM systems are essential to any SALT agreement."

Any thorough examination of this subject would require consideration of some objections which might be raised about an ABM limitation agreement.

First, some people may have doubts about the verifiability of an ABM agreement.

In past nuclear negotiations and in the current SALT process, agreement on verification has been a difficulty. On-site inspection has been and is today rejected by the Soviet Union. One of the advantages of an ABM agreement, when compared to some proposed agreements about offensive weapons, is that we can verify compliance of an ABM treaty without on-site inspection.

The United States has been able to observe the deployment and operation of the current Soviet ABM system with a high degree of reliability. We knew when construction was begun, when it was cut back and when the Moscow system was operational. The large and sophisticated radars which are the central nerve system of ABM are easily observable. They take years to build and must be operated frequently and in a particular, identifiable manner to assure their usefulness. Our most knowledgeable scientists assure us that detection of future deployments would be relatively easy. As to the concern sometimes expressed that the Soviet aircraft defense system might be upgraded to be an ABM, most U.S. experts believe this extremely unlikely. But even if it were to occur, Soviet radars would have to be constructed and operated, and the violation would become readily detectable.

A second possible objection to an ABM agreement is that it would strip us of our protection against a future Chinese nuclear threat.

The administration itself has recognized that to adequately protect against a small-scale Chinese threat a nationwide ABM system would be necessary. Such a system would also threaten the Soviet's deterrent—forcing them to take new measures to assure their ability to penetrate it. Therefore, during the debate on Safeguard last year, the administration wisely dropped the Chinese threat as a justification for ABM.

Our nuclear force, which is sufficient to deter a Soviet attack, would certainly be sufficient to deter a much smaller Chinese threat as well. A Chinese attack on us would be an act of self-destruction. It is unreasonable to believe that China's leaders would launch such a strike—and thereby sacrifice all of what it has taken them two decades to build.

Third, it might be argued that an agreement covering only ABM's will lose the momentum of SALT; that by now giving the Soviets what they seem to want most, we would lessen the chances they would negotiate an agreement on offensive weapons.

It seems to me that our leadership in certain aspects of technology would still make it advantageous to the Soviets to reach offensive agreements—even if we agreed first about ABM's. We are ahead of them now in guidance systems and in MIRV'ing.

We have nearly twice the economic base they have to draw upon. They are well aware of America's scientific and technological ingenuity. From the Soviet point of view it is easy to believe that if the arms race continues we would try to remain ahead in some significant fields.

Also, as I have explained earlier, if ABM's do not exist or if their deployment is very limited, MIRV's are not necessary to deterrence. So an ABM limit could make restraint of MIRV's—and other offensive weapons—easier. Our approach to an ABM agreement should make clear that we regard this not as the ultimate strategic arms agreement but as an important first step toward comprehensive agreements.

Just because the Soviets want an agreement on ABM is not reason enough for us to reject it. It seems only common sense that we agree now to something that is obviously in the vital interest of both sides and proceed from that to more difficult issues. Certainly we should not exclude the consideration of ABM agreement.

Fourth, we hear statements that our ABM is needed as a "bargaining chip" to get the kind of agreement that we want about other items, for example, Soviet SS–9's. It is said that if we are just a little more patient the administration will get a better agreement in the future than is available today.

My answer to that is that the "bargaining chip" approach has been tried and has failed for the time being. Since this tactic was first employed more problems—not less—have developed in the negotiations. We now face the added complications of MIRV's already deployed, of 300 SS–9's and of defining whether or not forward-based aircraft are strategic weapons. Developments could occur at any moment in the ABM field which would make the achievement of an agreement even more difficult. If anything, all our recent experience shows that it takes years to develop common ground on which to base agreements in this complex field. We have an opportunity to achieve one such agreement now—and we should seize it.

Last is the argument that if we give up the ABM system protecting land-based ICBM's and those ICBM's become vulnerable to a first strike, we would be "putting all our eggs in one basket." It is said that missile-carrying submarines would then be our sole deterrent, and an adversary could focus all his resources on neutralizing them.

The fact is that all our eggs would not be in one basket—but in two. The process of MIRVing, together with prospective improvements in guidance systems, will indeed make land-based ICBM's vulnerable to attack in the foreseeable future. And no ABM system now contemplated can affect this eventuality. Moreover, multiple warheads vastly increase the probabilities for confusing penetrating or simply overwhelming such an ABM defense. Thus, accurate MIRV's could in the foreseeable future make even hardened—and defended—land-based ICBM's undependable as a second strike force.

However, this development will leave the other two elements of our deterrent forces essentially undisturbed. First, there are our 569 strategic bombers. Though their bases are vulnerable to missile attack and the bombers, once airborne, would face various defenses, our military regards these aircraft as an independent deterrent in themselves.

Second, in the absence of ABM's to intercept them, our sea-based weapons are more than adequate to inflict unacceptable damage on an adversary. Furthermore, the problem of detection as well as the mobility of sea-based units makes the prospect of foolproof ways of attacking them exceedingly remote. Even if only a few survived their missiles could impose an intolerable cost on the attacker.

Beyond that, if no agreement on offensive weapons were reached, and if in years to come, technological breakthroughs threatened our remaining deterrents, several courses would still be open to us. An ABM treaty, like other nuclear pacts before it, would contain a clause insuring our right to withdraw should new developments related to the treaty endanger our security. If we thought an ABM could significantly improve our security, we would be free to withdraw from the treaty and build that ABM.

I believe that an ABM limitation agreement should not be considered as a partisan issue. The idea of building an anti-ballistic-missile system was first conceived and undertaken by a Democratic—not a Republican—administration. If in the end history records that ABM was a mistaken effort to improve our national security, then many distinguished Democrats as well as distinguished Republicans had a part in that mistake. I am among the many in this body—Democrat and Republican, liberal and conservative—who in the past year or two have reconsidered the advisability of pressing ahead with ABM construction and have determined to vote against it. Outside of this Chamber, the principal scientific advisers to Presidents Eisenhower, Kennedy, and Johnson stand united in their support for immediate negotiation of an ABM agreement.

I urge that neither my Republican colleagues nor the responsible administration officials construe this resolution as an attempt to embarrass them for petty partisan advantage. The issue is far too momenotus to be judged on party lines

Finally, it should be emphasized that this resolution in no way infringes on the role of the executive branch and on the constitutional treatymaking function of the President. It is an effort to convince the executive branch. It is an attempt by the Senate—which has its own constitutional responsibilities in foreign relations and in the ratification of treaties—to persuade the executive branch to seek a result we believe to be desirable. Passage of this resolution would not interfere with the President's right to negotiate in a manner he thinks most productive. It does not direct that we simply accept the current Soviet proposal. It is not binding nor instructive but rather sug-

gestive. It would indicate to the executive branch the desire of the Senate nad of the American people to make progress in SALT toward an ABM agremeent that would be in our national interest and now appears to be attainable. It would be an indication beforehand to the President of the possibilities for ratification of an ABM agreement, should he be able to negotiate one.

There is a deep and swelling belief among people of all political persuasions that the nuclear ladder we and our adversaries have been climbing does not lead to greater security for anyone. There is a growing conviction that the farther we go, the more expensive, dangerous—and unnecessary—the burden.

None of us can be so naive as to fail to demand of our military and of ourselves an adequate defense of our Nation. But in this day of the multiple-warheaded missile and massive overkill we must be certain that what we provide is real security. Increased numbers of warheads and increased megatons do not necessarily make our Nation more secure.

For some Americans—particularly the young—the absurdity of the strategic arms race has become a symbol of the harrowing ambiguities of 20th century existence. Is it so unreasonable that they doubt their elders' leadership if we show neither the skill nor the foresight to escape from traps we ourselves have fashioned? Thus, it behooves those concerned about our Nation's future and its steadfastness—as well as those who hope for detente with our adversaries—to help take the first steps toward nuclear restraint.

We are living now a special moment in history. In the current nuclear balance we have a unique opportunity, an opportunity to halt this race of self-destruction. Is it possible we will let it pass us by?

Mr. President, I submit, for appropriate reference, a resolution relating to strategic arms negotiations.

The ACTING PRESIDENT pro tempore. The resolution will be received and appropriately referred.

The resolution (S. Res. 86), which reads as follows, was referred to the Committee on Foreign Relations:

S. RES. 86

Whereas, the Senate has a deep desire for significant progress to restrain the nuclear arms race through agreements covering both offensive and defensive strategic weapons and wishes to encourage such progress in the Strategic Arms Limitation Talks;

Resolved, That the Senate respectfully urges the President—

(1) immediately to undertake negotiations with the Government of the Union of Soviet Socialist Republics for the purpose of entering into an agreement with that Government to ban or restrict to a small number and a limited geographic area the deployment of an anti-ballistic missile system, including related radar installations, as a part of our continuing effort to limit offensive and defensive strategic weapons.

THE FEDERAL ELECTION REFORM ACT OF 1971—AMENDMENT

AMENDMENT NO. 27

Mr. SAXBE. Mr. President, last year the Congress overwhelmingly passed a bill that would have established expenditure limitations on political broadcasts. The legislation provided free media time for presidential candidates and reduced rates for all candidates for public office. President Nixon vetoed the measure because it did not regulate all forms of media, just radio and television. The Senate upheld the President's veto. At that time a number of Senators indicated they would introduce comprehensive campaign reform legislation early in the 92d Congress. Many have fulfilled that promise.

I congratulate all those who have introduced such legislation, and, I would especially like to applaud the efforts of the distinguished minority leader, Senator SCOTT, Senator MATHIAS, and the other cosponsors of S. 956.

This legislation consists of four basic parts; financial reporting and disclosure, tax incentives for small contributions, political broadcasting and advertising, and reduced rates for political mail. I think S. 956 offers the best vehicle for comprehensive campaign reform. The approach of the bill is to emphasize full reporting and disclosure, and consequently no ceilings are placed on campaign spending. I am convinced that there must be campaign spending limitations in any effective reform legislation to eliminate the spiraling cost of campaigning.

For that reason, I am submitting at this time an amendment to S. 956 that will provide campaign ceilings based on a population formula. My amendment establishes a new section in the Scott-Mathias bill that limits amounts spent by candidates for President, Vice President, Senator, and Congressman. Representatives at Large, Delegates, and Resident Commissioner are also covered by the bill. The amendment in its present form provides further expenditure of 7 cents per individual in the election districts as of the first day of January of the year in which the election is held. At present this formula would allow between $14 and $15 million for presidential campaigns, adequate funds for diverse, individually styled Senate campaigns, and approximately $30,000 for each congressional race.

The bill also provides an additional 5 percent of the aggregate amount of general election expenditures which could be spent in connection with an uncontested primary election. If a candidate is opposed my amendment allows an additional 50 percent for the primary. To adjust the population figures the Bureau of the Census is charged with verifying or estimating the total number of individuals as of the first day of January of each year.

To combat political inflation, the amendment provides for increases in the limitations geared to percentage increases in the Consumer Price Index.

Also, the Scott-Mathias legislation provides for tax incentives for political contributions and reduced postal rates for political mail. We cannot afford reduced Federal revenues at this time if we are going to retain our economic position in the international community. And, we cannot risk increasing the national deficit to provide for political campaigns. For this reason my amendment deletes these provisions from the bill.

Mr. President, I want to reiterate that all provisions of the Scott-Mathias bill except the ones that I have discussed above appear to me to form a good basis for comprehensive Federal election reform. I submit this amendment in the spirit of differing slightly with the position of its sponsors but wholeheartedly supporting their efforts to bring about change in this very vital area.

Mr. President, I send to the desk at this time an amendment to limit campaign expenditures by candidates for Federal office. I ask that this amendment be printed and ordered to lie on the table.

The PRESIDING OFFICER (Mr. BUCKLEY). The amendment will be received and printed, and appropriately referred.

The amendment (No. 27) was referred to the Committee on Commerce.

HIGHER EDUCATION OPPORTUNITY ACT OF 1971—AMENDMENT

AMENDMENT NO. 28

Mr. JAVITS. Mr. President, I submit for appropriate reference an amendment to S. 1123, the Higher Education Opportunity Act of 1971, the administration's higher education bill which was introduced on March 4th by the distinguished Senator from Vermont (Mr. PROUTY) and of which I was a cosponsor.

This amendment is designed to meet the problem of discrimination against particular categories of students in the granting of guaranteed student loans and is similar to one I introduced last year. The discrimination takes such forms as a requirement that the student or his family maintain an account or business relationship with the lender, refusal to make loans to students during their freshman year of study and discrimination because of race or sex. These problems were documented in the Survey of Lender Practices Relating to the Guaranteed Student Loan Program conducted in accord with subsection 6(a) of the Emergency Insured Student Loan Act of 1969.

It is estimated that some 100,000 to 150,000 students could benefit from this proposal.

My amendment would require that as a condition precedent to the use of the secondary market and warehouse mechanisms provided in S. 1123, lenders must contract that they will not discriminate against particular classes or categories of students, including a requirement that the student or his family maintain a business relationship with the lender, the practice of refusing to make a loan to freshmen students, and discrimination on the basis of sex, color, creed, or national origin.

The survey revealed, for example, that:

In the judgment of financial aid officers interviewed, discretionary practices that prevent the largest number of students from receiving loans related to account relationships and year in school.

A similar conclusion was reached in a sampling of student loan applicants. The survey also found that:

An analysis of demographic character-

istics of respondents who did not get loans indicated, for example, that the proportion of females and nonwhites not receiving loans was significantly higher than could be explained by chance occurrence.

My amendment seeks to meet these shortcomings.

In the current school year, an estimated 1,087,000 young Americans will borrow in the area of $1 billion to further their educations. And these figures, it is anticipated, will grow in the future. My amendment will foster that healthy growth.

The PRESIDING OFFICER (Mr. BUCKLEY). The amendment will be received and printed, and appropriately referred.

The amendment (No. 28) was referred to the Committee on Labor and Public Welfare.

WHITE HOUSE CONFERENCE ON INDIAN AFFAIRS—AMENDMENT

AMENDMENT NO. 29

Mr. FANNIN submitted an amendment intended to be proposed by him to the bill (S. 693) to provide for a White House Conference on Indian Affairs, which was received, ordered to be printed, and appropriately referred.

The amendment (No. 29) was referred to the Committee on Interior and Insular Affairs.

ADDITIONAL COSPONSORS OF AN AMENDMENT

AMENDMENT NO. 6

At the request of Mr. KENNEDY, the Senator from Indiana (Mr. BAYH), the Senator from New Jersey (Mr. CASE), and the Senator from Alaska (Mr. STEVENS) were added as cosponsors of amendment No. 6 intended to be proposed to S. 659, relating to the education of American Indians.

NOTICE OF HEARING ON PATENT LAW REVISION

Mr. McCLELLAN. Mr. President, as chairman of the Subcommittee on Patents, Trademarks, and Copyrights of the Committee on the Judiciary, I wish to announce that the subcommittee, on May 11 and 12, will continue the public hearings on legislation for the general revision of the patent law. These hearings will commence each day at 10 a.m. in room 3302, New Senate Office Building.

The subcommittee has previously held several days of hearings on patent law revision and the hearings on May 11 and 12 will be limited to issues which have developed since the earlier hearings. The hearings will cover the following topics:

First. The possible inclusion in S. 643, the patent revision bill, of provisions clarifying the rights of patent owners with respect to the licensing of patent rights, such as are contained in Senate amendment 24, proposed by the minority leader.

Second. The clarification of the relationship between the Federal patent law and contractual and other rights or obligations not in the nature of patent rights created by Federal or State statutes, as provided in section 301 of S. 643, and in Senate Amendment 23, introduced by the minority leader.

Third. Consideration of the necessity for modification of the patent law in order to facilitate the public policy of improving the quality of the environment. The subcommittee will consider section 308 of the Clean Air Amendments Act of 1970, and section 6 of the transitional and supplementary provisions of S. 643.

Fourth. Adjustment of patent and trademark fees, such as is provided by S. 1255.

Fifth. The amendment of title 35 to provide for the granting of a right of priority with respect to inventors' certificates, such as is provided in S. 1252.

Anyone who wishes to testify on these subjects, or file a statement for the record, should contact the office of the subcommittee, room 349–A, Old Senate Office Building, Washington, D.C. Telephone: Area code 202 225–2268. Although oral testimony will be limited to the subjects enumerated, the subcommittee will also receive written statements covering other provisions of S. 643. These statements will be incorporated in the record of the subcommittee's hearings on patent law revision.

The subcommittee consists of the Senator from Michigan (Mr. HART), the Senator from North Dakota (Mr. BURDICK), the Senator from Pennsylvania (Mr. SCOTT), the Senator from Hawaii (Mr. FONG), and myself.

QUORUM CALL

Mr. BYRD of West Virginia. Mr. President, I suggest the absence of a quorum.

The ACTING PRESIDENT pro tempore. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. BELLMON. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

BIG CITY MAYORS BOOST REVENUE SHARING

Mr. BELLMON. Mr. President, as all of us know here in the Senate, there are a lot of mayors and other city officials from all over the Nation here in Washington these days. They are here for a purpose, and that purpose is to urge approval of the various revenue-sharing proposals made by President Nixon.

Now, we have heard a lot in the Senate and on the airwaves and have read in the press much to the effect the cities do not really want revenue sharing. That they would prefer, instead, to have the Federal Government pick up the tab on welfare, or get tax credits for income taxes paid to States and cities.

We now find that this allegation is largely just plain nonsense. The mayors and officials who were here are not unanimous in their support of revenue sharing, but they are largely united behind it. Particularly, the mayors of big cities who have big problems.

Yesterday Mayor Carl Stokes of Cleveland, a city with really big problems, came away from the White House strongly urging Congress to consider revenue sharing favorably. He disagreed vigorously with the junior Senator from Maine (Mr. MUSKIE), who had the day before sharply criticized revenue sharing in a speech to the mayors.

Mr. Stokes made an observation which I would like to call to the attention of my colleagues.

He said revenue sharing was popular among Democrats a decade ago, and then added:

> Obviously what has happened is that because Nixon has proposed it, Democrats as a partisan reflex have opposed it.

Mr. President, I hope Mayor Stokes, who is himself a Democrat, is wrong in this appraisal. I would hate to think that either political party would take such a reflex partisan attitude toward any program that a President of the United States might propose, whether that President be a Republican or a Democrat.

This is not a healthy attitude for either political party to take. Nor is it a healthy attitude for any member of either political party to assume, especially if, by taking such an approach, that person might hope to achieve partisan advantage.

QUORUM CALL

Mr. BELLMON. Mr. President, I suggest the absence of a quorum.

The ACTING PRESIDENT pro tempore. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER (Mr. Moss). Without objection, it is so ordered.

EXTENSION OF PERIOD FOR TRANSACTION OF ROUTINE MORNING BUSINESS

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that the period for the transaction of routine morning business, with statements limited therein to 3 minutes, be extended for an additional 15 minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

RECISION OF ORDER FOR RECOGNITION OF SENATOR PERCY TOMORROW

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that the order recognizing the able Senator from Illinois (Mr. PERCY) for a colloquy on tomorrow be vacated.

The PRESIDING OFFICER. Without objection, it is so ordered.

ADDITIONAL STATEMENTS

THE NBC FILM DOCUMENTARY "THE EVERGLADES"

Mr. CHILES. Mr. President, at a time when it seems that television network documentaries draw little reaction other than criticism and controversy, I should like to invite attention to one that has received broad acclaim—for its overall quality, for its manner of presentation, for its meaningful message, and for its value to the viewers.

Some 5 weeks ago, NBC presented a special 1-hour documentary, "The Everglades," as part of NBC News' continuing series of programs examining new areas in various fields of science and technology. The show concentrates on the Everglades National Park in the southern part of Florida. It was produced by NBC in cooperation with the National Academy of Sciences and was sponsored by the American Dairy Association, all of whom I commend for this outstanding presentation, along with Mr. Craig Fisher, who wrote, codirected, and produced it.

The Florida Everglades is a very special area; not just in the State but from a national standpoint; not only for its abundance of rare and spectacular wildlife but because it is a grand display of the force and energy of nature as once prevailed throughout this continent. For there, in the subtropical environment of the Everglades, even the smallest creatures depend upon the proper balance and regularity of those forces.

Huge quantities of pure water pour into the park and keep it alive, supporting uncountable numbers of birds and animals such as can be seen nowhere else on earth. It is one of the last refuges of our Nation's symbol, the bald eagle, who shares the sky with exotic birds like white ibis, great blue herons, woodstorks, and roseate spoonbills. The water is alive with fish and alligators. The plantlife is beyond description but this documentary film records it all.

There have been and will continue to be dangers to this natural preserve, but some important decisions have been made which recognize its value for now and the future and seek to protect its well-being. The proposed jetport is an example. Actions of man—roads, canals, housing developments, factories—have diminished to some degree the resources available to the Glades, but this documentary shows how a new attitude in south Florida has slowed, and in some instances stopped, this type of encroachment. As the script states:

> An atmosphere is being created, sometimes by government and sometimes by private citizens, that suggests that economics cannot take precedence over all else. The Everglades is a prime example of how pressure can effect positive change.

Mr. President, because this documentary presentation deserves the praise it has received, I ask unanimous consent that letters to the show's producer from the U.S. Department of the Interior, the Central and Southern Florida Flood Control District, the Greater Miami Chamber of Commerce, and the Water Users of Florida, Inc., and a February 18 column by Jack E. Anderson, of the Miami Herald, be printed in the RECORD.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

U.S. DEPARTMENT OF THE INTERIOR,
Harpers Ferry, W. Va., February 25, 1971.

Mr. CRAIG FISHER,
NBC News,
New York, N.Y.

DEAR CRAIG: Congratulations on the Everglades show. It was easily the best that has been done on the subject. I am glad we were able to help in some small way and only wish we could have been more helpful.

I am certain we will be petitioning to purchase prints for Park Service use.

Once again, thank you for saying so well those things we have been trying to preach for so long.

Sincerely yours,

CARL G. DEGEN, Jr.,
Chief, Division of Audiovisual Arts.

CENTRAL AND SOUTHERN FLORIDA FLOOD CONTROL DISTRICT,
WEST PALM BEACH, FLA.
February 18, 1971.

Mr. CRAIG FISHER,
National Broadcasting Co.,
Burbank, Calif.

DEAR MR. FISHER: Please let me compliment you on your Everglades film. It was one of the finest films I have ever had the pleasure to see on television.

For many years I have spent a considerable amount of time in Everglades National Park and the great wilderness areas to the north that are controlled by the Central and Southern Florida Flood Control District. But in spite of this, at the film's conclusion I was anxious to return again to the Park.

As each portion of the film passed before my eyes, I caught myself agreeing with every comment. Let me assure you, this is something I haven't been able to say about previous documentaries concerning the Park's problems.

We in the Flood Control District have spent years attempting to find the answers to the problems of the Glades, and we will continue to do so in years to come. But a documentary such as this one reassures us that some people can still recognize the problems and encourage us, rather than arousing an uninformed public to blame all nature's woes on us.

I also appreciated the fact that credit was given to the FCD for their film footage used in the picture. Let me assure you that if you ever want to return to the Everglades, our District will be more than happy to cooperate with you on any project on which you may be working.

Sincerely yours,

JOHN G. DUPUIS, Jr.,
Vice Chairman.

THE GREATER MIAMI CHAMBER OF COMMERCE,
Miami, Fla., February 17, 1971.

Mr. CRAIG FISHER,
Executive Producer, NBC News,
New York, N.Y.

DEAR MR. FISHER: Your Everglades documentary deserves many compliments. It was a "first" to point out how the quality and quantity of water affects our valuable ecosystem.

We were very proud of the observation you made about community attitudes, and we couldn't agree more that our directors and efforts have been channelled toward serious environmental goals.

If it is possible, I would like to obtain a copy of the script, or at least the last fifteen minute summary so we can use it as an objective viewpoint of our community activities.

Sincerely,

FRANK J. CALLAHAN.

WATER USERS ASSOCIATION OF FLORIDA, INC.,
Kissimmee, Fla., February 25, 1971.

Mr. CRAIG FISHER,
National Broadcasting Co.,
New York, N.Y.

DEAR MR. FISHER: Please accept my sincere congratulations for your excellent production "The Everglades". The photography must be regarded as some of the most beautiful and interesting ever made. Your logical portrayal of the life food chain and the importance of wet and dry cycles was so clearly and logically portrayed that viewers could easily grasp this important biological process.

Mr. Downs' narration was excellent. The spacing of the narrative with the periods of fine background music was very effective and added much to the enjoyment of the program.

The overland flow of water to Everglades National Park has been a very controversial subject as you well know. In this connection it is seldom understood or pointed out that the sole source of supply for the water north of the park is also rainfall on the area. When the park is short on rain so is this supply. Another item that may be of interest is that the quality of the water from the conservation areas to Everglades National Park ranks with the purest of any aquatic preserve in the United States. This is probably due to the absorption of nutrients by the dense vegetation in the 1,345 square miles of the conservation areas.

Thank you for this outstanding program. I hope that it will be shown again soon.

Sincerely,

RILEY S. MILES,
Executive Director and General Manager.

REASSURING DOCUMENTARY FOCUSES ON THE EVERGLADES

(By Jack E. Anderson)

It was a relief Tuesday night to learn via an NBC special that our Everglades is in relatively fair shape, ecologically speaking.

In a 60-minute report with surpassingly beautiful photography, Hugh Downs, serving as host and narrator, told us that thus far the vast, watery park is in good natural balance.

There are threats to it—drought, encroachment of home development and jet ports and the wrong use of insecticides. But to Florida's credit the park is still an unsullied wonder of plant and wildlife.

Producer Craig Fisher and his cameraman in a succession of film shots gave TV viewers breath-taking vistas of the 9,000 square miles of grass, forests, mangroves and water.

And in candid close-ups it took the cameraman months to capture the eternal cycling of the bird and animal life of the Glades.

Viewing an alligator making a meal on a raccoon or a cottonmouth moccasin striking at a squirrel isn't particularly pleasant but as Downs pointed out, it is an important ecological process of "death without destruction."

Former Secretary of the Interior Walter Hickel was on hand, strolling with Downs along one of the park's elevated walkways and reflecting on the value to Americans of a natural treasure such as the Glades.

Americans, he said, "are trying to meet priorities that in the past were basically economic. Now they are making decisions that are greater than economic reasons."

It was reassuring documentary and totally fascinating to watch.

YOU SHALL KNOW THE TRUTH: A REPLY TO CRITICISM OF THE NETWORKS

Mr. McGOVERN. Mr. President, we have heard again in recent days serious attacks on the objectivity of the press

made by the Vice President of the United States and by a Member of the U.S. Senate who serves as chairman of the Republican Party. Because of the source of these charges, I feel that we cannot allow them to go unanswered.

In our Nation, a free press has always been one of the underpinnings of an independent public opinion. It has enabled citizens to form an opinion about Government policies based on sources of information other than those in the Government itself.

Any government may find itself uncomfortable under such an arrangement, but that, I expect, is the very reason for its existence. We want our Government to be a model of probity; we know that a government is certain to reflect human shortcomings and fall somewhat short of our desires. It has been an article of our democratic philosophy that the free press should act to spur the men in our Government to the greatest honesty in their statements to the American people.

The media themselves are, of course, no less fallible than government. They will inevitably make mistakes. But their failures should no more discredit all of their work than the mistakes of our Government should be allowed to destroy our faith in the institutions of government.

For the second time, we have seen the administration launch a major attack on the media which is nothing less than an assault on the institution of a free press. Our history has shown that those in power are almost certain to dislike what they read about themselves. What is most disturbing now is that the administration, because it read and seen reports it does not like, is attempting to undermine the confidence of the American public in the media.

We are told that this attack does not mean that more stringent regulation of the media is sought. But the apparent objective of these attacks is not simply to restrain the media but to make them the object of public scorn.

I ask that the administration reflect on the course that it is taking. Its present course presents a clear and present danger to one of the vital ingredients of our democratic system.

In the light of these recent statements, I hope that the media resist all attempts at intimidation. Any newsman who alters his report because of criticism by the administration deserves equal condemnation with those who have sought to hinder his freedom.

I believe the media should always be on trial. It should be judged on its accuracy, its objectivity and its completeness. The jury should be the public; the media themselves should be their own most severe judge. When the political leaders of our Nation set themselves up as judge and jury, freedom of the press is in danger.

I believe, too, that our Government should always be on trial in the court of public opinion. When we are shown a pipe that allegedly was captured recently and it turns out to be a year-old trophy, when we are given differing estimates about the effectiveness of the Laos operation by the President and his field commanders only to be told later that they were really talking about two different things, when our people are blacked out on a major military operation while the rest of the world is able to inform itself, when invasion is called incursion, when retreat is called mobile maneuvering—when all this happens, the American people have the right to judge the administration's performance as unsatisfactory.

Effective government in a democracy depends on honesty by our leaders and a free press. Only in that way can we fulfill the ancient promise: "You shall know the truth and the truth shall make you free."

Mr. President, in view of the specific administration attacks, I ask unanimous consent that a letter of reply by NBC President Julian Goodman be printed at this point in the RECORD along with an earlier reply by CBS President Frank Stanton.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

NATIONAL BROADCASTING COMPANY, INC.,
New York, N.Y., March 22, 1971.

Hon. GEORGE MCGOVERN,
U.S. Senate, Washington, D.C.

DEAR SENATOR MCGOVERN: Last week, an attempt was made by a member of the Senate to discredit fair and factual television reporting of recent developments in the war in Indochina, relating particularly to the Laos operation.

The issue is so basic that I am taking this means of bringing the matter to your personal attention and that of other Members of the Congress.

Senator Clifford Hansen has obtained video tapes of the network's evening News programs; has extracted excerpts dealing on a day-by-day basis with the Laos operation; and has assembled these excerpts into a running presentation for showing in the Senate. This material was then used by Senator Hansen and several other Senators to claim that the network news coverage of the war has been "biased," "distorted" and designed to disparage the military operation in Laos.

The news material itself does not support these charges. It includes film shot in the field; interviews with men who have been engaged in combat; reports from Washington officials describing the military operations; and the reporting of views, both favorable and unfavorable to the Administration's war policy and its effectiveness. Anyone who viewed this material fairly would consider it valuable in the information it offered as straightforward actuality reporting and would not read into it the bias charged by the Senator.

The charges of bias are not only unsupported, but dangerous, because they seek to interfere with the free flow of information essential to the public. The standard for news coverage is accuracy and fairness, not whether the news presentation serves the purpose of those who would like to see it reported in a way that would support their own views.

This latest incident, taken with other equally groundless attacks on television journalism, for partisan purposes, appears to be part of a continuing effort to discredit and intimidate the network news organizations so that they will not be effective or independent in presenting the facts the public must have to examine the course and soundness of government policy.

I ask you to consider the very fundamental point of principle involved here—the need of a free people to have the facts and developments on issues realistically reported even though the facts are unpleasant.

Television journalism—together with the rest of the press—deserves the support of all who recognize that the very nature of our democratic system rests on the independence of the press to report events and issues free of political pressure. This is a right that belongs to the public and needs careful and constant protection.

Sincerely,

JULIAN GOODMAN.

COLUMBIA BROADCASTING SYSTEM, INC.,
New York, N.Y., March 18, 1971.

CBS REJECTS AGNEW CRITICISM

CBS President Frank Stanton has made the following comments on Vice President Agnew's attack tonight on CBS News: "The Vice President's speech tonight is a vivid example of the traditional conflict between government and the free press which has marked this country's history. CBS does not claim any immunity from criticism. CBS does not claim to be infallible. But the Vice President's indictment is mistaken.

"The Vice President's attack is focused on (1) 'Hunger in America'; (2) 'The Selling of the Pentagon'; (3) a CBS News investigation called 'Project Nassau.'"

(1) "Hunger in America" was credited by President Nixon, shortly after his election, as the broadcast which "really aroused" the American people to the problem of hunger. For the full statement by President Nixon, see Attachment A(a).

The charges made against "Hunger in America" and cited by the Vice President were reviewed in an extensive proceeding by the Federal Communications Commission, which found no wrong-doing by CBS News. This report of the Commission was rendered *after* the Congressional Committee report which the Vice President cites. The pertinent findings of the FCC are given in Attachment A(b).

(2) "The Selling of the Pentagon" has been praised by distinguished Americans from all walks of life. It has also been criticized. But we believe that it is an important and valuable job of journalistic investigative reporting.

(3) "Project Nassau," a CBS News investigation, was abandoned and never resulted in any broadcast. The central facts relating to the allegations of a House Committee, relied on by the Vice President, are set forth in Attachment B.

"CBS stands behind 'Hunger in America,' 'The Selling of the Pentagon' and the integrity of CBS News. I am confident that impartial, professional observers will agree that these documentaries are important contributions to 'the people's right to know.'"

ATTACHMENT A

(a) "I noted the tremendous interest and I think it is encouraging that such an interest finally is developing among the people at large—the interest in the problem of hunger in the U.S. You will recall when the public conscience finally became aroused—really aroused about the problem of hunger in the U.S. it was a CBS Television program a few months ago in which millions of Americans for the first time living in this what is really the best fed, best housed, best clothed nation in the world—millions of Americans saw on television that in this rich land there is hunger."—President Nixon, in a talk to the staff of the Department of Agriculture, February 3, 1969.

(b) "23. We have set out the results of our investigation and, most important, the policy which we shall follow in this sensitive area. Upon the basis of the foregoing dis-

cussion, we conclude that no further action is warranted here with respect to the issue of slanting the news—the issue which was presented in the complaints."—Federal Communications Commission, Memorandum Opinion, October 22, 1969.

ATTACHMENT B

JULY 20, 1970.

Commenting on the Report issued today by a House Special Subcommittee on Investigations criticizing a CBS News investigative reporting project in 1966, a CBS News spokesman said:

"We deplore the Subcommittee's unfair investigation and deny its charges which cannot obscure three basic facts: (1) the Subcommittee is attacking an investigative reporting project, nothing of which was ever broadcast—a labored assault on a non-event; (2) the U.S. Department of Justice found no unlawful activities on the part of CBS News (John Davitt, Chief, Criminal Division, Internal Security Branch, U.S. Department of Justice, testified: 'So there is no doubt in our minds that CBS was privy to all of these preparations. I must add, CBS advised us of these facts, advised the Bureau of Customs that they were there, and that they were filming these episodes. I must say that at all stages they were very cooperative with us in our investigation.'); and (3) the Subcommittee conducted all of its hearings in secret, save a token part-day—despite our urging that all testimony be made public so that we would have an opportunity to examine the charges and respond to them."

A copy of a letter to Congressman Harley O. Staggers, Chairman of the Special Subcommittee on Investigations, from CBS News President Richard S. Salant, dated May 8, 1970, is attached.

CBS NEWS,
New York, N.Y., May 8, 1970.

HON. HARLEY O. STAGGERS,
Chairman, Special Subcommittee on Investigations, Committee on Interstate and Foreign Commerce, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: The purpose of this letter is to urge the Subcommittee to make public all the testimony heretofore taken behind closed doors with respect to a CBS News investigative reporting project involving gun-running and related matters.

We do so for two principal reasons. First, we are concerned that this project has been the subject of false charges and erroneous conclusions; fairness and justice should entitle us to examine the record in order that we may more fully respond to such charges and counter such conclusions. Second, we have never been entirely closed as to why the Subcommittee considered it necessary or proper to probe behind a bona fide news-gathering project, particularly in light of the fact that the project was abandoned and no special report ever broadcast.

At the outset of the brief public hearing on April 16 you declared: "The purpose of these hearings is not accusatory in nature; we are interested in learning the facts." But even with that intent, the fact is, as the verbatim transcript stands in evidence, that the hearing became accusatory—for instance, the very last statement before adjournment was a stated belief by a member of the Subcommittee that CBS had violated the law. Previous executive sessions at which Mr. McMullen appeared were similarly conducted, and Mr. McMullen has not even been permitted to review his own testimony. During the only public hearing on April 16 fragments of secret testimony were utilized in a fashion that can only be called accusatory—regardless of intent. Moreover, these fragments were apparently taken from galley proofs of a report on the Subcommittee's findings that had already been distributed to its Members.

We must protest the Subcommittee enquiry both in principle and in the secretive manner in which it has been conducted. We cannot escape the conclusion that far from seeking out the facts—which can best be arrived at openly—an effort has been made behind closed doors, to build a case against an investigative unit of CBS News. The main accusations of that case, all of which CBS repudiates, seem to us to be as follows:

That CBS News had no business attempting to document and expose the commission of an illegal act, namely a purported military expedition against Haiti.

This is novel, to say the least. Investigatory journalism is a vital function of a free press and of a free society. Rarely does the press more vitally fulfill its role of serving informed public opinion than when it reports on flouting of the law. In that reporting, so essential to the public interest, investigatory journalism frequently arouses controversy. Some citizens—some members of executive and legislative branches—may quarrel with the judgments made in particular cases. That is a risk any investigative journalism worth his salt must be always ready to accept, for the journalist's responsibility to the community comes first. The continuing assaults on Caribbean lands, at times admittedly sponsored by refugee groups based in the Miami area, further confirm the need for such reporting.

That CBS News encouraged illegal activities (gun-running and an attempted invasion of Haiti) and that CBS News failed to report illegal activities promptly and directly to appropriate governmental authorities.

CBS News denies both of these charges. This entire project was an attempt at documentation of complex sub-rosa activities. As the story developed, the producer did not know whether he was dealing with a situation involving gun-running, an attempted invasion of Haiti which the United States Government knew about and approved, an attempted invasion about which the Government knew and would stop, or a group of people who had no intention of even attempting to invade but were merely raising funds from the refugee communities under the false promise of "freeing" their homeland.

It was understood that the story might turn out to be a combination of some of these possibilities. If the entire proposition was a hoax on the refugee communities by a few selfish promoters, the disclosure of that hoax was, in itself, a news story, and thus continued coverage seemed worthwhile. In the end it was determined that not enough genuine evidence had been uncovered to justify the broadcast, and the project was scrapped.

In this investigative reporting, CBS News was informed that United States law enforcement agencies were aware of the activities of the exile group and that the United States would not permit that group to undertake activities which constituted a violation of the neutrality laws. CBS News understood that the exile activities, and CBS News' reporting efforts, were known to the White House, the Federal Bureau of Investigation, the Central Intelligence Agency and the U.S. Treasury Department (the Bureau of Customs), although we could not be certain that all elements of the Government were acting in unison. Moreover, agents of a federal agency that had jurisdiction over the exile activities, the Bureau of Customs, asked the CBS News producer to continue his efforts. One CIA operative who was in touch with the project has said that groups planning to overthrow the Haitian government through invasion were publicly discussed and that much of the training and planning taking place in Miami was public knowledge.

That CBS News paid money with knowledge that it might be used to further illegal activities.

CBS News did not pay money to further illegal activities and is confident that no significant amount of money even inadvertently found its way to persons involved in any such activities. When CBS News cancelled the attempted documentary, its cost had amounted to about $170,000. (Such expenditures are not beyond the range of costs involved in documentary efforts requiring out-of-town travel and living expenses over a period of time.) The overwhelming percentage of these costs, which were incurred over many months, was for CBS News staff and crew and consultant salaries and fees, travel, living, overhead, office services, film and similar normal expenditures. We believe this is clear from the comprehensive financial information and analysis which CBS News has supplied to the Subcommittee. A small portion of those production expenses was paid for information and filming rights and services. Those amounts were not large, were not paid to further illegal activities, and could not conceivably have had an impact on an invasion force. (Reference was made on April 16 to salary and expenses paid to Andrew St. George, and amounts paid to Mitchell WerBell—the implication being that those were payments to "conspirators." Yet, Mr. St. George was in direct contact with the White House and the FBI during the course of the events, and Mr. WerBell, although indicted as a conspirator, was dismissed from that indictment at the instruction of the United States Department of Justice, without public explanation. Mr. WerBell was talking to the CIA during the course of the events.)

That CBS News "staged" certain film footage or photographed certain events knowing they were "staged" for the benefit of CBS News.

CBS News did not authorize the "staging" of any footage at any time or authorize the photographing of events knowing they were being "staged" for the benefit of CBS News. In investigative reporting, a producer evaluates and reevaluates raw material as his investigation continues and as new information is gathered. During that reevaluation, the CBS News producer was apprised that some events, including certain training activities in the Miami area and a purported shipment of guns from Atlanta to Miami, apparently occurred only for the benefit of the camera. The uncertainty about them played a part in the CBS News decision not to broadcast a documentary.

That CBS News assembled a 27-minute "work print" that contained some material known to CBS News to contain some "staged" or "falsified" materials, and that CBS News intended to broadcast that "work print."

This allegation arose from a reel of film materials edited and strung together by the CBS producer at different times during the course of his investigation and generally in chronological order. The producer has repeatedly denied that the reel was a "work print" for a broadcast, and has denied that he had any intention of recommending the broadcast of the reel in the form in which it existed, and, in fact, CBS News never received such a recommendation. The best evidence of CBS News' intent is that the reel was not broadcast. Further, Mr. McMullen has testified that at no time did he ever intend, or recommend, the broadcast of any events without identifying them exactly for what they were.

That CBS News management did not supervise closely enough the unit investigating the Haitian fiasco.

This too is incorrect. This project was assigned to one of the finest and most experienced investigative reporters in all of journalism, a man whose abilities and integrity had repeatedly been demonstrated, over 17 years at CBS News. He consulted with his supervisors during the project and joined them in the decision to abandon the project and not to broadcast any documentary.

I respectfully request that this letter be made a part of the Record of the Subcommittee's proceedings in this matter, and that the enclosed copies be distributed to the members of the Subcommittee.

Sincerely yours,

RICHARD S. SALANT.

SECRETARY VOLPE COMMENTS ON THE SST

Mr. SCOTT. Mr. President, today we cast votes in the Senate either to continue this great country's pioneering efforts in aviation, or to take a step backward in our desire no longer to have a ranking of a great power. I am convinced that every Member of the Senate is interested in maintaining our leadership as a nation.

Commenting on the House vote on the SST last week, Secretary of Transportation Volpe made some very clear observations. I ask unanimous consent that his remarks be printed in the RECORD.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

STATEMENT BY SECRETARY OF TRANSPORTATION JOHN A. VOLPE

It is my firm hope that today's adverse action in the House will be corrected when the Senate takes up the SST Program.

There is no doubt whatever in my mind that the development of the two SST experimental test planes—and the concurrent environment study—should continue. I have confidence that American ingenuity can overcome any problems and create a plane which will have no damaging effect on the earth's environment. Completion of the final two years of this 12 year program will answer those questions. Without the experimental program, of course, we will have lost our opportunity to test the technological, environmental and economic feasibility of this plane. Thus, we will leave to other nations this critical responsibility.

What is happening here in Washington now, with respect to the SST, will be written in the history of the future. If Congress fails to continue this program tens of thousands of workers will feel the effects in the years to come. Our Country will lose leadership in the most important field of this airspace age and our economy will suffer great losses.

As a person who has pride and faith in his Country, I am hopeful that the Senate will support our proposal and that—in conference—the test program will be continued.

PROBLEMS OF THE TRANSPORTATION INDUSTRY

Mr. MOSS. Mr. President, the lead editorial of the Journal of Commerce for March 18, 1971, is entitled "The Quiet Voices" and counsels positive cooperative action by the various modes of transportation in solving the problems that confront the transportation industry.

The editorial points out that the issues before the transportation industry may be divided into three categories and quotes Mr. John A. Creedy as suggesting that issues which, if resolved, would benefit all forms of transportation; second, would benefit one form but not hurt the other; and then the third type of issue which is controversial because one mode believes its economic interests are adversely affected could then be addressed. Carriers, having worked together on simpler issues, might better be able to resolve the controversial ones. This is a sensible and appealing approach.

I recommend the editorial to the Senate and ask unanimous consent that it be printed in the RECORD.

There being no objection, the editorial was ordered to be printed in the RECORD, as follows:

THE QUIET VOICES

When issues are complex, the desire for an overly simple solution becomes almost irresistible. Transportation policy issues have become tightly knotted. Times are difficult; the simple-sounding solutions seem attractive. "Off with his head," must often have given the absolute ruler of ancient times great personal satisfaction. At least the irritant was temporarily removed.

And so today we have strident voices speaking to us about transportation policy. Abolish the ICC and remove rate regulation, nationalize the railroads, create a super-regulatory agency, put transportation under the antitrust laws. We do not suggest that these proposals are all without merit. For many years, we have advocated more use of basic antitrust principles in the regulation of transportation.

But these are all very radical changes. There is formidable opposition from shippers and from the transportation industry to the abolition of the ICC. Nationalizing the railroads, in our view, is a counsel of despair. The super-regulatory agency may have merit, but it would require the complete rewriting of transport regulatory law—a herculean task and not one likely to be accomplished in this session. Applying antitrust laws inevitably means both the abolition of rate bureaus, which are popular with many shippers, and amending the Robinson-Patman Act so that it applies to services as well as goods—an arduous procedure.

Many of these long range suggestions may, in part or in whole, come true in time, but the urgent need is for prompt relief today. Because quick answers are needed, the simple-sounding drastic solution to complex problems are counter-productive. Many of these suggestions are diverting attention from practical goals more easily attainable and more productive.

We hear most of all about poor management in transportation; there is some of that undeniably, but also a lot of superior management. On the whole freight rates have risen much less than prices in the unregulated segment of the economy, a tribute both to cost-saving innovations by transport management and vigilant regulation. Nationalization would not produce half as good management. There is regulatory inequity.

Undeniable. There are regulatory lags, no question about it, but often brought on more by the litigants than the regulatory agency. There is local tax discrimination. Many carriers are forced to operate services which the public does not patronize; there is too much of that. The carriers have no adequate defense against the inroads of inflation; the goods they buy and the labor they pay for goes up in price much faster than the rates. That is undeniable and perhaps the single most important problem.

There has, up to now, been lack of unity of approach to common problems among the various modes of transportation. Railroads, motor carriers and water carriers have seemed intent, not on improving the position of the industry generally, but on cutting down each other.

Last year that seemed to be changing. One observed the totally unprecedented sight of water carriers and railroads working together to solve a water carrier problem, the legalization of mixing of regulated and unregulated commodities in a single river tow. At the same time, both sponsored amendments designed to achieve more equity in regulation between the modes. The truckers approved. The DOT now has two years to make recommendations in this area of equitable regulation.

Truckers, railroads and farm cooperatives also worked together to close a legal loophole which would have created a great many phony farm cooperative transport companies. Water carriers and truckers have both taken a "hands off" approach to railroad mergers, and new tax incentives and government loans for railroads.

Now the time appears to have come for more detailed common action. John A. Creedy, president of the Water Transport Association, representing the ICC-certificated water carriers, in a speech in Louisville last week suggested that the issues before the transportation industry be divided into three categories. The first would embrace issues which, if resolved, would benefit all forms of transportation. The second would benefit one, but not hurt any other. The third are the frankly controversial issues on which one mode believes its economic interests are adverse to another. Mr. Creedy said let's get going in a united effort to solve the first two types of issues, and the very act of working together may produce progress on the controversial issues. He urged that particular attention be given to modernizing the ICC's approach to cost justification so that the inroads of inflation may be properly taken into account.

Speaking in Chicago, William A. Bresnahan, president of the American Trucking Associations, also called for all modes to get together on the solutions of transport problems for the common good. He urged better ground rules for the abandonment of service, and argued that the carriers should not have to provide services at less than cost. He also suggested that the government, the largest shipper of them all, should pay the same tariff rates as any other shipper, not "Section 22" rates, which are much lower.

These are quiet voices calling attention to major issues all carriers have in common which could be settled promptly if the transport industry would unite in common action.

We hope such common sense suggestions of the water carriers and the truckers in the interest of all transport modes and of the public, will not be ignored by the railroads. If transportation does not suggest its own cures, other cures will be thrust upon them which may not meet the problems. If their reasonable requirements are not met, expansion of capacity will be insufficient to meet the needs of the economy and the public interest will suffer severely. The alternative is chaos leading to government-ownership and far less efficient transport service than now exists.

NEW POSITION AT STRATEGIC ARMS LIMITATION TALKS URGED

Mr. PEARSON. Mr. President, last week the distinguished senior Senator from Illinois (Mr. PERCY) delivered on the floor of the Senate a speech urging his proposal for a new U.S. position at the strategic arms limitation talks now underway again at Vienna.

As I understand the Senator's proposal, it includes three elements: First, that we accept a limit on antiballistic-missile systems, and that this be a zero limit; second, that we propose a freeze on all offensive systems on both sides; and, third, that we agree to negotiate in a European forum the reduction of forward-based weapons such as U.S. air-

craft in Europe which have a capacity to strike the Soviet Union.

While I would like to study the Senator's proposal more thoroughly, I think it has already served to bring forward a concept well worth the consideration of the Senate and the American people. This is the concept of a "freeze," or "moratorium" which carries with it a willingness to resolve differences by negotiation, and conveys a sense of confidence that these negotiations can, at some time, succeed.

Such a proposal would have the great merit of removing the SALT talks from the kind of "fight and talk" conditions that have so burdened the Vietnam negotiations at Paris.

It would make clear by action, rather then mere words, the intent of both sides to give priority to the limitation of arms as opposed to the development of new weapons systems.

It would show our good faith and test the good faith of the Soviet Union and, in fact, put us in an aggressive, affirmative position in the struggle for peace.

I urged such a moratorium on the development of all strategic weapons, with reciprocal action by the Soviet Union, in a statement to the Senate last July. At that time, there was a feeling that the simple fact of entering the SALT talks would be an expression of good faith on both sides. And it was. But we are now reaching a time when a tone of skepticism, rather than optimism, is rising out of the news and commentary about these talks. Senator PERCY has done for the Senate and the country a timely service, in my view, by bringing his proposals to our attention when, whether we like it or not, public confidence in the SALT talks, and especially in the seriousness of these talks with regard to new Soviet missiles and submarines, as well as MIRV deployment in U.S. missiles and submarines, is diminished. I welcome Senator PERCY's initiative and, having commented on only one element of his proposal, assure him that all three will receive my careful consideration.

L. B. J. RECONSIDERED

Mr. McGEE. Mr. President, Esquire magazine for April 1971, contains an article entitled "L. B. J. Reconsidered," written by Eugene V. Rostow. The article is worthy of close scrutiny and serious consideration by not only this body, but the Nation as well. Mr. Rostow has presented an extremely intuitive and astute exploration of our foreign policy—particularly the role balance of power has played in maintaining world stability.

As Mr. Rostow so poignantly points out, with the demise of Great Britain as a world power, this country was thrust into a leadership role never before experienced in our national history. We remained relatively insulated from the strife of Europe until the conflagration of World War I. Isolationism, as Mr. Rostow illustrates, had become a part of our national psyche. Isolationism still pervades this psyche. We withdrew from the arena of world politics immediately preceding World War I and became involved in yet another World War some 20 years later—this one more deadly and horrible than the one before.

After the Second World War we made the commitment that the world would never again be engulfed in such a holocaust. We thereby assumed our destined role as a world power. Mr. Rostow points out that as the concert of Europe kept the general peace between 1815 and 1914 so has America's role in the balance of forces kept world stability for the past 25 years.

President Johnson fought against this temptation to withdraw back into this isolationist existence which has crept back into our national psyche. He fully realized it would be detrimental not only to our national interests and security but also to world stability, to once again withdraw from our responsibilities as a world power. He fully realized the consequences would be wholly disastrous in a nuclear age. There was no returning to the 19th century where two oceans left us relatively secure from the internal strife of Europe and Asia.

As Mr. Rostow so aptly discusses, and as I have long maintained, the only substitute for war that so-called civilized man has yet worked out is the balance of power. It is irrelevant to argue that it should not be that way, or that we should do better. We have to start where we are, rather than where we ought to be. Peace in the world has its best chance through the achievement of balance of forces, as President Johnson so fully realized.

Most students of politics agree that the decade of the 1970's is still going to be dominated by the bipolar world of the Soviet Union and America. Our role in maintaining the balance of power has kept some measure of stability in the world for the past 25 years. It is the only chance of peace for the world in the future.

Mr. Rostow has given us a lesson in history we should heed. I ask unanimous consent that the article be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

L. B. J. RECONSIDERED

(By Eugene V. Rostow)

Like other veterans of the Johnson Administration, I have thought a good deal, both before and since January 20, 1969, about what went wrong—about what Johnson could have done, or should have done differently, to prevent the bitter and tragic division of the country over Vietnam.

While hindsight offers clues to alternatives of detail that seem plausible and attractive, at least in retrospect, I conclude, after canvassing the issue in a thousand ways, that the tragedy could not have been avoided; that its causes lie deep in our history; and that there is only one way to seek a cure: the nation must soberly reexamine its foreign policy before its foreign policy destroys the nation.

Almost all those who write and speak about foreign policy these days agree that American policy is significant to the possibility of peace. But American policy will not be credible, to friendly countries or to the other kind, until the American people come much closer to agreement on the nature of our national interest in world politics, and on the programs best calculated to protect that interest.

There is an outcry about foreign policy. The air is full of angry words about a new foreign policy that could liberate us from the burdens we have had to bear since 1945. Many Americans are frustrated and resentful, convinced that there must be a magic formula, a program not yet tried, which would permit us to bring the boys home, and return to "normalcy."

In fact, the outcry in the country is for the most part directed against the state of the world, not the state of our foreign policy. There is no magic formula, no hiding place, no easy option. The American government under five Presidents has made mistakes since World War II, including some major mistakes. But it has been on the right track. In my view, it has had no real alternatives to the course it has pursued.

If I am right, or even half right, in this bleak proposition, it follows that we should study the issues in the debate about foreign policy as dispassionately, and as analytically, as our temperaments permit. Our methods should be intellectual, and our motto Cromwell's famous admonition, "In the bowels of Christ, think it possible you may be mistaken." For I remain of the view, despite ten years as a university administrator and six in our own government and the United Nations, that reason should be an important source of policy, and that most of the really catastrophic errors of our recent experience have been intellectual errors, errors of theory and of analysis, not errors of intention, of arrogance, or even of pride. If this be rationalism in a romantic age, the reader is duly warned.

About Vietnam, President Johnson often said, quietly and decisively, "Ike has made a promise. I have to keep it." The S.E.A.T.O. Treaty, and all that lies behind it, was the key to Johnson's Vietnam policy. In making and carrying out foreign policy, I found Johnson stoic, detached, and a man of long views—extremely able and subtle, of course, but extremely simple, too, in the passion and fealty of his ultimate motives. Ike's promise was a powerful force in Johnson's mind for a number of reasons: because he is that kind of man; because he believes the United States should be a nation whose word is good, as he said over and over again, notably in his Baltimore speech of 1965; and because he knew that the S.E.A.T.O. Treaty is the essence of the Vietnam problem as a matter of international politics.

It has recently become fashionable at home, for obvious reasons, not to mention S.E.A.T.O. in talking about Vietnam. But our silence on the subject, even in high places, does not alter the fact that the credibility of an American guarantee is a critical feature of the Vietnam maze, and that the outcome of the affair will be felt wherever political arrangements depend upon the deterrent power of America's promises. Senator Fulbright's important proposal that the United States guarantee a peace agreement in the Middle East won't have much deterrent power if the guarantee of S.E.A.T.O. turns out to be worthless.

President Johnson's tragedy, like President Truman's, was that his foreign policy revived an unresolved division within the country—an intellectual and emotional division so intense as to make the President's withdrawal from politics a desirable step toward national reconciliation. Thus President Truman stepped down in March 1952, before the storm over Korea, as President Johnson did sixteen years later, before the storm over Vietnam. In each case, I am convinced, the President could have had his party's nomination for a second full term.

President Nixon is already caught up in the same tensions. Making a virtue of necessity, he has articulated the issue as a matter of principle. But, for many reasons, we ought not to put our Presidents to such a test.

Destroying a President is hardly a minor ripple in the stream of history. Johnson's reputation will doubtless revive, as Truman's did. My concern here is not with justice to reputations, but with the impact of the fate of these two Presidents on the pattern of the fuure. Together, the experiences of Truman and of Johnson pose a fateful question about the state of the American mind; must an American President expect to walk the plank if the Administration follows the kind of policy the United States followed in Korea under Truman and in Vietnam under Johnson?

Abroad, the question creates doubts, hopes and anxieties which are fundamental to everyone's foreign policy. What will America do, and what will it not do, to protect its own security, and those whose security is bound up with its own? What can people count on as fixed points in the spectrum?

At home, the question measures tension in the mind of every President—and every other American politician and bureaucrat—when there is conflict between what he regards as the imperatives of national security and the glittering appeal of his own career. Against the background of these events, any American President will use or threaten to use force in international politics most reluctantly, and only when he believes—rightly or wrongly—that his duty to the nation absolutely requires such action. And he will know, as Johnson knew, that in making his decision, he may well be deciding also to be a one-term President.

This constellation of doubt and tension is in itself a major causal factor in world affairs. The history of this tragic and brutal century is a chronicle of miscalculations about intent. The Kaiser thought Britain would not fight for Belgium, and he was confident we would never enter the First World War. Hitler fell into the same traps. Those who planned and initiated hostilities in Korea believed that the United States, which had just withdrawn it forces from South Korea, would not resist the takeover of that country by force. And it is reasonable to suppose that the men who made the comparable decisions in Vietnam gave far too much weight to the popular American slogan of the time, "No more Korea."

It is commonplace to hypothesize that Truman's fall, and Johnson's, stemmed in major part from flaws in their characters and capacities. Thus Louis Halle and other students of recent foreign policy stress that Truman was not eloquent, and the same accusation is often leveled at Johnson. These men, it is said, failed to explain their policies persuasively to the American people. Public opinion became confused, and the President lost the support of the one force every President needs most. A gap developed between the people and their President—a "communications" gap, a "credibility" gap, a gap of sympathy and of empathy.

It is, of course, true that neither Truman nor Johnson has ever been near Churchill's class as a public orator. Very few people are. But Churchill himself, for all his rhetorical gifts, could not rouse Britain and the United States from their trance during the early and middle Thirties, when the Second World War could easily have been prevented. Roosevelt, at the height of his influence, stirred a storm of resistance when he hinted obliquely that the United States should take some responsibility for "quarantining" aggressors. And Wilson, a great orator, spoke to the wind when he pleaded with his people to join the League of Nations, enter into a security treaty with France, and take an active part in world affairs. In short, public opinion has a formidable power to resist information and advice which contradict what it wishes to believe, even when they are conveyed in the tongue of angels—or of Cassandra.

I have witnessed some instances of the phenomenon at first hand. In the years 1965, 1966, and 1967, the United States followed up a number of hints that talks leading to a reasonable peace in Vietnam could be started through secret meetings in unlikely places. The government, of course, chased every rabbit down every hole. We anguished over the drafting of telegrams, and the conduct of dusty and inconclusive conversations behind a thousand potted palms. It was apparent that many of these leads were fakes. But they were all pursued relentlessly, and each one was treated as if it might lead us to the key of the casket. Inevitably, stories leaked to the press about some of these diplomatic efforts. Books and articles were written, and political speeches made, charging that Johnson had "missed" a dozen chances for peace. Yet when Wilfred Burchett, the well-known spokesman for Hanoi, told the press in December, 1968, that one of the most famous of these peace efforts was a hoax, concocted by "well-meaning friends" and never authorized by Hanoi, the story didn't appear at all in The New York *Times*, and only made an inside page of The Washington *Post*. Its publication had no effect on the flow of mythology about missed opportunities for peace. One of the most eloquent of those articles, dealing with the episode on which Mr. Burchett commented, appeared after the Burchett interview and made no reference to it.

There is reason to believe that Burchett's disclosure applies to all the peace feelers of that period. But so far as I know there have been no apologies from the politicians or journalists who so vehemently accused Johnson of missing this "chance" for peace, or others.

Despite the political costs of his silence in the face of these charges, Johnson refused to authorize a White Paper on the subject of peace initiatives, or to allow even the most tendentious stories to be answered, on the ground that it was essential to maintain the policy of official secrecy in preparation for the day when genuine peace feelers were made, under the cover of secrecy. But American public opinion is inclined to accept the accusation that opportunities for peace were missed. People have screened out facts which challenge their favorite theories.

I believe that Truman and Johnson's fate had more fundamental causes than their own errors and shortcomings. Of course they made mistakes and of course they had shortcomings. But these were opposed by overwhelming forces of feeling and instinct drawn from the classical view we are all taught to take of the United States in world affairs. Our historical memory sketches a vision of national identity in our minds: virtuous America, proud and aloof in the wicked world, safe behind two broad oceans, and loyal to what the conventional wisdom regards (wrongly) as the prescriptions of President Washington against entangling alliances. It may take another generation before this tenacious idyll yields to reality, and American opinion fully accepts the twentieth century as a fact. Even a generation may not be enough, if politicians, journalists, and academicians continue to exploit the isolationist strain in the American psyche as a stepping-stone to power. We are still almost totally unconscious of the fact that our safety in those shaping years depended upon a balance of world power organized and maintained by European diplomacy and guaranteed for us by the British fleet. And we are nearly as unaware of the fact that since 1939 the conditions of our security are beyond the capacity of the old European powers to assure.

In my own thinking about what President Johnson could have done or should have done differently, my mind returns to an aspect of his policy which has not to my knowledge been much discussed as yet—his refusal to appeal to the national feeling over Vietnam. Since my duties did not include the continuing assignments on Vietnam, it took some time after I came to Washington to appreciate the deliberateness of this decision.

President Johnson was always more concerned about hawks than doves when foreign policy began to have military implications. The military element in history has no romantic appeal for him, as it did for Roosevelt, Churchill and de Gaulle. The campaigns of the past that he studies for recreation are political, not military. He has a pronounced distaste for chauvinism. In no area is he more visibly the Populist.

As President, Johnson was acutely aware of the unique military power of the United States. And he feared that it might be difficult to limit the use of that power if national pride were fully aroused about war in Vietnam. He often remarked that for centuries the British conducted limited military campaigns along the boundaries of their influence. "We have to get used to the idea," he remarked. There were no parades to dramatize Vietnam, and no bond drives, even in the period before domestic opposition became intense. In 1968, President Johnson and his Administration were beseiged by Congressmen and Senators who asked him to wrap the flag around the sur-tax bill. "Say we're doing it for the boys," they urged, "and we'll have no trouble passing the bill." Johnson would not budge. The battle for the tax increase was fought, and won, as an exercise in monetary policy and political responsibility, addressed to the balance of payments and the equilibrium of the monetary system, not to the necessities of war.

Thus public feeling about Vietnam was subjected to unequal pressures. The opponents of the war skillfully invoked the powerful magic of our yearning for the past. Johnson would not counter that force with patriotic appeals of comparable emotional impact.

The question that I have about this aspect of Johnson's policy is not one of democratic ethics. The essential facts about Soviet action in Vietnam, in the Middle East and elsewhere were not concealed from the American people. But they were not trumpeted out, either, or projected in the simplified images of propaganda. President Johnson deliberately had the facts presented in the setting of his hopes and efforts for reaching an understanding with the Soviet Union and with China. Over and over he repeated the chilling theme of his 1966 speech in Arco, Idaho:

"The heart of our concern in the years ahead must be our relationship with the Soviet Union. Both our nations possess unimaginable power; our responsibility to the world is heavier than that ever borne by two nations at any other time in history. . . . Our compelling task is this: to search for every possible area of agreement that might conceivably enlarge no matter how slightly or how slowly, the prospect for cooperation between the United States and the Soviet Union."

And he realized that one of the important consequences of the Cuban missile crisis in 1962 was the acceleration of the Soviet missile program.

Thus Johnson avoided an atmosphere of anti-Soviet and anti-Chinese hysteria, which could have swept us much closer to general war, despite the rising tide of pressures he faced—pressures quite different from those of the early postwar years, more diverse and sophisticated. As a result, it was possible for large parts of the nation to cling to illusions about the state of world politics. The American mind has been intermittently and inconclusively preoccupied with problems of foreign policy since the turn of the century. At that time, perceptive men began to warn their countrymen that the conditions of world politics were changing, and that we

could not expect much longer to be able to live in isolation. The men who made these arguments were dismissed as visionaries, jingoes or worse, as the country clung to the attitudes toward foreign affairs on which we had been nurtured. Our forefathers had come to America to escape the wars and the power politics of the Old World, hadn't they? So, like sleepwalkers, we chose to pursue our destiny on this continent in peace, unique among the nations, e pluribus unum, a beacon of progress and of proud isolation from the selfish quarrels of imperialists. Such is the stuff of our collective memory, which still dominates our emotional approach to world affairs.

Like every other official on the foreign-policy side of the Johnson Administration, I was immersed in debate twenty-four hours a day. Since returning to the university, I have reviewed my impressions of these contests and the books, articles and memoirs about them that have thus far appeared. I have begun to find it helpful to classify the opposition to L.B.J.'s policy into six schools or parties. The first is the Pacifist School, expounding a doctrine of innocence for which we have always had a special place in our hearts. The pacifist, of course, contends that war is immoral and that we should not engage in it under any circumstances. He never explains how one nation can expect to survive unarmed or unprotected in a world political system which permits others both to arm and to attack. The theme of pacifism is more common in our debate than one might suppose. Those who are not pacifists, but oppose the war in Vietnam for particular reasons, often invoke or quote those who oppose all war without discrimination. Both Johnson and Rusk were sensitive to the mounting tide of criticism from the pacifists, especially the clerical pacifists, and devoted much effort to reasoning with them.

The Second School is at the other extreme of the spectrum—the party of all-out ideological anti-communism. These critics of our foreign policy regard the cautious efforts of the American government since the war to build a balance of power, and to reach an understanding with the Soviet Union and with China, as dangerous appeasement. For them, the major premise of our foreign policy should be *"Ecrasez 'linfâme,"* a theme antipathetic to Johnson, who worried about the potential power of this extreme, simplistic strain in American opinion if sufficiently aroused.

Third, I note the School of those who are consciously or unconsciously identified with one branch or another of the Communist movements of the world. These men, now as always, find ways of justifying anything done by one of the Communist states. Whatever happens, they tell us, is our fault, or the fault of the bankers and industrialists who in their view pull the strings of American power. And, as good Puritans, we half believe them. Johnson's attitude to critics of this stripe varied with his mood. He never stopped trying to influence friends who might have some persuasive influence with them.

The Fourth Party in my classification is that of old-fashioned isolationism. Nobody admits he belongs to that party. Nonetheless, it has influential members who, in effect, wrap themselves in the classic mantles of the late Senators Borah, La Follette and Wheeler, and of Professor Charles A. Beard. They contend that we do not need a foreign policy at all. We should not participate in the wickedness of world politics, they argue, but devote all our energies to the struggle for social improvement at home. They pass quickly over the changes in political geography since 1914, do not explain how we could avoid being drawn into the troubles of the world, as we were in 1917 and 1941, should disorder spread beyond a certain threshold. This powerful tide of feeling was one of Johnson's major preoccupations. He knew both the force of the idea and its danger.

All members of School Five find it difficult to become enthusiastic over the idea of the balance of power. Indeed, they find both the phrase and the idea odious. Some would have us engage in the world not to support a general system of equilibrium but only to uphold governments they could characterize as progressive, democratic and forward-looking. Another group within the same party advances the mirror image of this view as the proper major premise for our foreign policy—that American support should be available only to governments conservative and anti-Communist enough to meet with *its* approval. To worldly idealists like Johnson and Rusk, the major premises of both these groups were attractive, but naive and irrelevant. They felt that we are not engaged in world affairs to help governments some of us happen to approve, but to protect our national interests. The practice of foreign affairs these days requires our Presidents and Secretaries of State to move warily in a realm without heroes or villains or illusions.

As for the Sixth School, its eloquent spokesmen stress, and stress heavily, that the United States is over-committed and must retreat. Their books and speeches are not clear, however, about how far we should retreat in order to stop being over-committed. Nor do they offer us a clear criterion for deciding what commitments are excessive. Most would have us bring the troops back from Europe, the Mediterranean, and the Far East. They take these positions without explaining how nuclear deterrence would be credible under such circumstances, and how we could preserve and protect nonnuclear options for dealing with situations of strain. Indeed, many go farther. They admit that a general American withdrawal could lead to neutralism or reorientation, both in Europe and in the Far East, but are willing to risk even so drastic a change in the balance of power rather than face the alternative.

It is doubtless my fault, but I must confess that I have great difficulty in distinguishing many members of both the Fifth and Sixth Schools from true isolationists of the pre-1941 type.

What, then, should the major premise of our foreign policy be? What, after all, is foreign policy *for*?

In answering this question, we face a genuine gap in the American language. Since foreign policy was not a factor of much importance in our national life between 1815 and 1914, we have never had to formulate the ideas which in fact have governed our behavior abroad. As a result, we have used a highly rhetorical and often evangelical vocabulary to explain policies which were eminently practical, not to say cold-blooded. As President Johnson said of our entry into the First World War, "Our slogans rallied the nation to fight tyranny and make the world safe for democracy. But we were really fighting to protect a national interest most Americans at the time did not understand—our interest in the balance of power."

I regard the national interest as the only acceptable guide to foreign policy. There can be no distinction in this regard between conservatives and liberals. In my view, the American government should never send the troops into battle except to protect national interests. Behind that principle, citizens who are genuinely conservative and genuinely liberal about issues of domestic policy can come together with equal conviction. This was the view Johnson took when he was Democratic majority leader in the Senate during Eisenhower's Presidency. And in that post he established a model that will rank among his most important pubic services.

What is our national interest in world politics today? In an age of missiles and shifting allegiances, immunity from invasion is not a sufficient measure of national safety. The goal of our policy, I should suggest, is a system of world politics within which we could continue to develop as a free and democratic society. American democracy can be safe at home, to recall a speech by Senator Fulbright, only in a world of wide horizons, organized under the Charter of the United Nations—a world of balanced power, tolerant of different social systems, flexible in encouraging social progress, but free of the threat of change achieved by external force. It will be impossible to achieve such a system without American leadership in seeking international equilibrium, for those who once exercised such leadership no longer have the capacity to do so.

Our unconscious still resists this fact, and yearns for the effortless security of the nineteenth century. But our instinct for self-preservation has led us since 1947 to take an active part in the politics and security problems of a contracting world. That role does not represent the arrogance of power, or hegemonic ambition. It offers us a non-ideological non-imperialist, and manageable guide for our political and military activities. We did not become universal policemen. We did not conduct an anti-Communist crusade. What we did was the absolute minimum necessary to create and maintain a new balance of power in the world, to replace the Concert of Europe, which had kept the general peace between 1815 and 1914, and collapsed finally in 1939. The next few months may tell us whether we have done, in fact, less than that minimum.

"The balance of power" is neither a "conservative" nor a "liberal" idea. It is the key to any system of law, domestic or international, that seeks to assure liberty in peace; the only alternative, in fact, to a Roman solution for the problem of peace in international society.

Why can't America be safe at home behind a shield of I.C.B.M.'s and Polaris submarines? Because nuclear weapons can't be used. We won't use them unless hideously pressed, and even then the issue is dubious. And the Soviets won't either while we possess a second-strike capacity. Our nuclear monopoly did not prevent the Soviet take-over in Eastern Europe, nor the threats to Iran, Greece, Turkey and Korea. Nor has nuclear stalemate, more recently, prevented processes of Soviet and Chinese penetration in the Middle East, Southeast Asia, and elsewhere.

The nuclear deterrent may be credible, or half credible, in situations of ultimate tension, creating great uncertainty. But it is difficult to imagine that we would use nuclear weapons to prevent one more slice being taken off the salami, or, more important, that the Soviets would believe that we would. And, if we were to arrive in the final nuclear redoubt, surrounded by an overpowering array of passive, neutral, or hostile nations, and divided at home by plausible appeals for "cooperation" and "compromise," would we then opt for Götterdämmerung, and use the nuclear weapon, knowing we should be bombed in return? Or would we bitterly accept the wave of the future?

The answer, I think, is obvious.

The nuclear weapon, then, does not radically change the problem of peace. It complicates it with a new dimension. But it remains true, now as in the past, that to minimize the possibility of general war, and to maximize the possibility of remaining a free and democratic nation at home, we have no choice but to function in world politics at two levels: one, that of conventional diplomacy and conventional weapons, seeking to gain general acceptance for a stable equilibrium, based on understood limits of international conflict; the other, which affects the first, but is also distinct from it, the level of nuclear deterrence and nuclear control.

What does the concept of the balance of

power imply, as a guide for our conventional foreign policy?

To me, it allows no easy escape from the kind of policy we have pursued since 1947. Congressional resolutions cannot repeal the fact that hostile and expansionist powers are pursuing programs that would radically alter the balance of power, and leave us isolated on our continent. Great shifts in the balance of power have always drawn us into war. There is no reason to doubt that Thucydides' maxim still applies to the affairs of men. What made the Peloponnesian War "inevitable," he wrote, was not the episodes of conflict which preceded it, but "the growth of Athenian power, and the fear which this caused in Sparta."

The best—the only—cure for such fear is to prevent the convulsions which are its cause, to continue patiently and steadily to insist on the achievement of a reasonably stable system of peace in world politics.

Many who would accept this premise as a valid definition of our national purpose often add that times have changed since the late Forties, when President Truman first laid down the broad lines of the foreign policy we have followed ever since. The circumstances of world politics have indeed changed during the last twenty years. But these critics of our foreign policy rarely point out in what respect those changes require a change in the policies and postulates which have developed since the late Forties. The Communist movements of the world are no longer as tightly controlled as they were. But the pressure of Communist ambition is still felt in the Middle East, Southeast Asia, and other parts of the world. Almost three years ago the Soviets invaded Czechoslovakia, an event which closely parallels earlier conflicts over East Germany, Czechoslovakia and Hungary. The steady increases in Soviet air, naval and nuclear power, the development of the Chinese nuclear arsenal, and the emergence of Soviet and Chinese rivalry for leadership in world Communist movements—these trends hardly make the pressures easier for us and our allies to manage or contain. Of course the decentralization of Communist power offers our diplomacy certain opportunities. But it by no means guarantees their success.

One central conclusion emerges from an analysis of the literature of opposition to our foreign policy: except for the pacifists, the Communist apologists, and the other true isolationists, on the one hand, and the all-out ideological crusaders of the Dr. Strangelove type on the other, the critics of our foreign policy have failed to define a real alternative to the policy we have pursued since 1947. Their rhetoric is different. They talk more than their opponents about the nightmarish dangers of the world. But there is a gap between their rhetoric and the policies they propose or support.

For example, they decry the insanity of the arms race, and particularly of the competition in nuclear arms. But they conclude, as our government has concluded, that we must remain capable of neutralizing and deterring the nuclear and other armaments of nations that have opposed us.

The critics of our foreign policy would "reexamine" our commitments in many parts of the world. But I have yet to find a clear-cut and explicit statement by any of them to the effect that the defense of Japan, or Western Europe, or Australia, or Israel, or South Korea, or Canada would not be in our national interest. I know of no critic in this group who would denounce the North Atlantic Treaty, or any other treaty or defense arrangement made during the last twenty years, and almost all of them recognize the delicacy of any change in the system of guarantees for the fragile peace of the world. True, Senator Mathias has proposed the repeal of a number of commitment resolutions, as if the Congress could legislate détente, or eliminate a threat to our interests by increasing uncertainty about our willingness to protect them. But most of his colleagues know that American commitments are among the few solid structural elements of the world political system, and that uncertainties deepen when those commitments become doubtful, or lose their deterrent quality. They recall what happened when U.S. troops were withdrawn from South Korea in 1949. Even Senator Mathias has decided that this is no time to repeal Eisenhower's Middle East Resolution, which authorizes the President to use force, if necessary, in that tortured area.

In this respect, too, I fail to discover an analytic difference between the position of most of the critics and that of the Administrations they so merrily assail.

Even about Vietnam the debate has failed in my view to reveal an alternative position. A few, of course, and in recent months an increasing number advocate a confession of error, a denunciation of S.E.A.T.O., unilateral American withdrawals, and an abandonment of South Vietnam to the control of North Vietnam. And another group, perhaps no longer quite comparable in size, would support all-out war to conquer North Vietnam, and to liberate the areas of Laos and Cambodia now under Communist control.

But until a year or so ago, the majority of the more political critics of our policy, including Senator Eugene McCarthy and Senator Edward Kennedy, and, until his death, Senator Robert Kennedy, followed a different line. They opposed unilateral troop withdrawals, or turning the country over to the N.L.F. They opposed denouncing our obligations under the S.E.A.T.O. treaty, or repealing the Tonkin Gulf Resolution. They called for negotiations, and a return to the Geneva Conventions of 1954 and 1962. They urged an effort to obtain Soviet cooperation of the kind that was available in winding up the Korean War to help prevent the situation from getting out of hand. In short, apart from the atmospherics, they advocated exactly the policies the government of the United States has long pursued.

Recent months have, of course, seen an extraordinary change in American opinion about Vietnam and about foreign policy generally.

During the campaign of 1968 and before, high-minded politicians and journalists were convinced that "real" negotiations, leading to a "fair and honorable peace, compatible with our obligations to South Vietnam," could and would be assured by stopping the bombing of North Vietnam, despite the failure of previous bombing halts to achieve any results whatever. The American people, these men said, are tough and responsible. They will do whatever is necessary to make their word good. But before undertaking such an effort, they want to be sure that every peaceful alternative is tested. All over the world, these critics said, we are being told that a bombing halt will lead to peace. Let us find out. If a new bombing halt did not lead promptly to a decent peace, they said, they would advocate a military policy of much greater effort.

These men took grave responsibilities in what they promised the American people. It is now clear that Hanoi never intended to make any concessions whatever in exchange for the bombing halt it tried so hard, and so successfully, to obtain.

There is no public evidence qualifying Hanoi's position that we must accept the N.L.F. as "the sole legitimate representative of the South Vietnamese people." This is the only issue in the war—the only one of Hanoi's "peace points" the United States and South Vietnam have not long since accepted. Recent unofficial variants on the theme do not modify that policy, for they posit an abandonment of the South Vietnamese Constitution, and the government chosen under it, and the formation of a coalition consisting of the N.L.F., plus a few picked men who have participated in the government or the public life of South Vietnam.

Nonetheless, many who supported the bombing halt in 1968, on the grounds I have summarized here, now urge that we withdraw our forces, at once, and accept the N.L.F. with or without fig leaves as "the sole legitimate representative of the South Vietnamese people."

The shift from bombing halt to unilateral withdrawal is a major transformation in at least the nominal or the admitted aims of the larger part of the opposition to our policy in Vietnam.

It is difficult to predict the impact on our foreign policy of the strains and frustrations associated with the anguish of Vietnam. It is hard to imagine our repeating the follies of the Twenties and the Thirties. But we may. After all, we did so once before.

Foreign policy can be nemesis for more than reputations. If we do try to escape down the rabbit hole into the nineteenth century, if we stand by and do nothing to prevent cumulative and threatening gains in Soviet power in the Middle East, or of Chinese power in Asia, war is almost certain to follow, for the same reasons that led to war in Europe as a result of the American withdrawal from world politics more than thirty years ago.

Dean Rusk is not at all like his rather bland and solemn public image. In the privacy of his office, he is quick, sharp, and amusing, as well as a superb boss and colleague. In his office and in every other forum, he is also, of course, a man of great ability and intuition, dominated by principle and by his Old Testament sense of duty. He used to grin when the commentators dismissed one of his speeches as "nothing new." "If the question hasn't changed," he would remark, "how can we change the answer?" But he drew a different reaction from Congress and from the commentators when he began to warn the country, in 1967 and 1968, that many of the opponents of our Vietnam policy were not simply opposing the wisdom or prudence of our course in Vietnam, but were advocating a return to isolationism. That charge, which of course had Johnson's blessing, stirred sharp denials.

But I believe Rusk and Johnson were right, and that events since confirm their analysis.

HOUSTON CHRONICLE PRAISES WHITNEY YOUNG

Mr. BENTSEN. Mr. President, the recent death of Whitney Young was a blow to all Americans who seek better relations among the races in our country. As President Nixon said, Young's genius was "to accomplish what other people were merely for."

Whitney Young's capacity as a doer was eloquently described in a March 14 editorial in the Houston Chronicle. I ask unanimous consent that it be printed in the RECORD.

There being no objection, the editorial was ordered to be printed in the RECORD, as follows:

WHITNEY M. YOUNG, JR.

During nearly a decade as executive director of the National Urban League, Whitney M. Young Jr. detested the term "moderate" when applied to his work in the civil rights movement.

The veteran civil rights leader said of the label:

"It isn't a question of moderate versus militant, but of responsibility versus irresponsibility, sanity versus insanity, effectiveness versus ineffectiveness."

We praise Young, dead of an apparent heart attack at 49, as a man who took a responsible course in his efforts to improve the lot of the black man in our society. And as he himself had counseled, he took an effective course. This was his strength.

Even the black militants who did not agree with Young's methods could not deny his effectiveness in the battle for a better life for blacks. He was a dedicated, articulate spokesman for blacks at all levels. He worked vigorously for economic improvement. During the two-year period from 1964–66, the Urban League's search for jobs resulted in the employment of some 40,000 unemployed blacks and an upgraded job status for another 8000.

When Young took over the league in late 1961 he made changes that were to have a profound effect on the direction of the American civil rights movement during the 1960s. He abandoned the league's tradition of conventional social work and middle-class orientation. He sent the league into America's black ghettos and emphasized getting jobs, job training and self-help.

Under his leadership the league showed significant growth, not only in staff size and the number of chapters, but in influence as well.

He advised blacks to forget about their fire power and to concentrate instead on developing their brain power, political and economic power if they wanted a better life.

In answering black militants who hurled "Uncle Tom" epithets at him, he said:

"The only criterion by which I want to be measured is whether or not I have helped to improve the economic, political, health and social future for black people—not on the basis of how many white people I curse out."

Against this self-imposing measuring stick, Whitney Young emerges as a great black man and a great American.

THE GENOCIDE CONVENTION—STATEMENT OF HON. ARTHUR GOLDBERG

Mr. MUSKIE. Mr. President, more than 20 years have passed since the United States signed the Genocide Convention. Since that time, 75 other nations have signed and ratified this document.

The failure of the United States to ratify the Genocide Convention is an omission which should be rectified immediately.

Since 1949, when the American Bar Association first recommended that the United States not ratify this convention, a number of arguments have been offered in support of this position.

An extremely cogent analysis and rebuttal of these arguments was presented to the Senate Foreign Relations Subcommittee on the Genocide Convention on March 10, 1971, by the Honorable Arthur Goldberg. I ask unanimous consent that the full text of Mr. Goldberg's remarks be printed in the RECORD following my remarks.

As a former Justice of the Supreme Court and U.S. Ambassador to the United Nations, Mr. Goldberg speaks with considerable expertise on questions of constitutional and international law raised by the Genocide Convention.

In a careful analysis of these questions, he finds the objections to ratification of the Genocide Convention to be "without substance."

On the other hand, he finds—and I agree—that the arguments for ratification of this treaty are "compelling." To quote from his testimony:

Our adherence to the Genocide Convention can make a practical contribution to the long and difficult process of building a structure of international law based on principles of human dignity.

I myself have no doubts that the Senate should ratify the Genocide Convention. However, had I any questions, Mr. Goldberg's testimony would have clarified many of them. For this reason, I urge Senators to make a careful review of these remarks.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

STATEMENT OF HON. ARTHUR J. GOLDBERG

I am grateful for the opportunity to testify before this Subcommittee on behalf of the Genocide Convention. I am appearing on behalf of the Ad Hoc Committee on Human Rights and Genocide Treaties, a committee of 52 national organizations whose total membership is in the millions. The purpose of the Ad Hoc Committee is to strengthen international law in the field of human rights by encouraging U.S. ratification of appropriate United Nations conventions, including in particular the Genocide Convention. A list of the oragnizations comprising the Ad Hoc Committee is contained at the end of my testimony.

I am accompanied today by Professor Richard N. Gardner of Columbia Law School, who appeared for the Ad Hoc Committee in your hearings on the Genocide Convention last year.

I do not wish to repeat today all the arguments this committee has already heard on behalf of the Genocide Convention. But permit me to state briefly my own answer to the frequently asked question: "Why should we act favorably on the Genocide Convention now?"

The answer, it seems to me, has three parts:

First. The Genocide Convention outlaws action that is repugnant to the American people. We should not decline to affirm our support for principles of international law and morality which we believe in. Our country was founded out of a passionate concern for human liberty reflected by the Bill of Rights and the Constitution. I believe that concern is very much alive today, as is reflected by the report of the Foreign Relations Committee supporting this convention at the last session of Congress. It is inconceivable that we should hesitate any longer in making an international commitment against mass murder.

Second. Our failure to adhere to this Convention is an unnecessary diplomatic embarrassment. Seventy-five countries have now ratified the convention. We are the most prominent United Nations member that has not. When I was U.S. Ambassador to the United Nations, I was often asked to explain our failure to ratify the Genocide Convention. Frankly, I never found a convincing answer. I doubt that anyone can. At a time when our commitment to human rights is being questioned by some of our own people and by others overseas, it is particularly important that we ratify a treaty so thoroughly consistent with our national purpose. A continuing dedication and reaffirmation of the humane principles of our Bill of Rights and Constitution is very much in order.

Third. Our adherence to the Genocide Convention can make a practical contribution to the long and difficult process of building a structure of international law based on principles of human dignity. It will put us in a better position to protest acts of genocide in other parts of the world and will enhance our influence in United Nations efforts to draft satisfactory human rights principles. I do not say that our adherence to this convention will work miracles. It may not bring very dramatic benefits in the short run. Let us remember, however, that none of the great documents of human civilization produced instant morality—not even Magna Carta or our own Bill of Rights. The point is that they did shape history in the long run. I believe the same may be true of the Genocide Convention, if we only give it a chance.

A number of arguments, many of them of a constitutional or legal nature, have been advanced against ratification. I believe they are lacking in substance. As the Secretary of State and the Attorney General have declared, there are no constitutional obstacles to U.S. ratification. I find fully convincing the reasoning of the report of the Foreign Relations Committee of December 8, 1970, which painstakingly examines and then rejects each of the constitutional and other arguments against the convention.

It is true, as this subcommittee is well aware, that the House of Delegates of the American Bar Association recommended against ratification of the Genocide Convention in 1949. But in the last 2 years every section of the ABA having specialized competence in the subject matter has come out in support of ratification of the Genocide Convention: the section of Individual Rights and Responsibilities, the section of International and Comparative Law, the section of Criminal Law, the section of Judicial Administration, the section of Family Law, and the ABA Standing Committee on World Order Under Law. A motion to reverse the ABA's 1949 position failed in the house of delegates by only four votes in the Atlanta meeting in February 1970.

It is clear from the recent record that the house of delegates is closely divided on this issue, but that settlement in recent years has moved dramatically in favor of ratification. It is also clear that those sections and committees of the ABA with special interest in international law and constitutional questions are overwhelmingly in favor of ratification. It is also significant that many prominent leaders of the ABA, including past presidents, Bernard G. Segal, Whitney North Seymour, William T. Gossett, Charles S. Rhyne, the Solicitor General Erwin N. Griswold endorse ratification. Many other distinguished members of the bar, including Attorney General Mitchell and Secretary of State Rogers, have likewise endorsed ratification, as have several other State and local bar associations.

The ABA, as we are all aware, is a very different organization than it was 22 years ago. Its membership has changed its views on many questions, domestic and international. I believe the subcommittee may wish to bear these considerations in mind as it evaluates the testimony of those who appear on behalf of the ABA today.

Let me comment on the arguments that have been given particular prominence by the opponents of ratification:

First. The contention that the Constitution prevents ratification of the Genocide Convention because genocide is a "domestic" matter is without foundation.

It would be a curious result if the United States were constitutionally barred from ratifying a convention already ratified by 75 other countries, including such friends and democracies as the United Kingdom, Canada, France, Mexico, the Scandinavian countries, and Israel. Fortunately, there is nothing in our Constitution that imposes such a unique disability upon us.

By any objective standard, genocide is a matter of international concern and is, therefore, an appropriate subject for the exercise

of the treatymaking power. In our shrinking world the massive destruction of a racial, religious or national group in one country has its impact on members of this group in other countries, stimulates demands for intervention, and inevitably troubles international relations. The fact that the United Nations General Assembly unanimously declared genocide to be a crime under international law in 1949 and that 75 members of the United Nations are parties to the Genocide Convention is further evidence that genocide can no longer be considered a matter wholly within domestic jurisdiction.

The protection of human rights is a matter of international concern. The United States has shown that it agrees with this view by ratifying the World War II peace treaties, the United Nations Charter, the Slavery Convention of 1926, and more recently the Supplementary Convention on Slavery, 1967, and the Supplementary Convention on Refugees, 1968. In the words of the Special Committee of Lawyers of the President's Commission for the Observance of Human Rights Year, chaired by retired Supreme Court Justice Tom C. Clark:

"Treaties which deal with the rights of individuals within their own countries as a matter of international concern may be a proper exercise of the treaty making powers of the United States. . . . It may seem almost anachronistic that this question continues to be raised."

I agree with my former colleague, Justice Clark, that there is no real basis for challenging the authority of our country under our Constitution to enter into the Genocide Convention. The constitutional arguments against the convention are indeed, as the committee said, anachronistic and without foundation in law.

Second. The contention that the Genocide Convention would alter the balance of authority between the States and the Federal Government is unfounded.

The Constitution specifically gives Congress the power to define and punish offenses against the law of nations. Genocide is an offense against the law of nations and is thus within the power of Congress to outlaw. Moreover, as the ABA's Section on Individual Rights and Responsibilities said in its report:

"Ratification of the Convention will add no powers to those the Federal Government already possesses."

Third. The contention that ratification of the Genocide Convention would subject American citizens to trial in foreign countries like North Vietnam on trumped-up charges of genocide is wholly false.

There is nothing in the Genocide Convention that would provide warrant for charges by North Vietnam that our prisoners of war, being held under conditions in violation of the Geneva Convention, are guilty of genocide. As the Foreign Relations Committee pointed out in its report, Hanoi can make trumped-up charges of genocide against our servicemen, with or without reference to the Genocide Convention. In the words of the committee:

"Their peril will not be increased by approval of this convention while peril may be avoided for tens of millions by ratification of the convention."

Moreover, under the Genocide Convention, extradition would only take place in accordance with laws and treaties in force, and we have no extradition treaties with North Vietnam. Nor do we make such treaties with countries whose legal systems do not afford basic procedural safeguards. Moreover, we do not grant extradition in any event unless a prima facie case is established against the accused and unless the accused will be afforded by the requesting state the due process provided by our own law.

In reading the testimony of the prior hearings I have noted the discussion of concurrent jurisdiction under the convention—jurisdiction of the state of which the offender is a national as well as the state in which the offense of genocide occurs. I noted the concern expressed on this matter by the senior Senator from Kentucky, Senator COOPER. Any expression from Senator COOPER deserves serious attention, and I have given it the serious attention that it warrants. I found in my own review of the legislation history that there was an agreed interpretation by the Legal Committee of the United Nations General Assembly that nothing in article VI shall affect the right of any state to bring to trial before its own tribunals any of its nationals for acts committed outside the state. The Foreign Relations Committee reached the same conclusion in its report. Nevertheless, I commend the committee for meeting this concern by recommending an appropriate understanding on this point. I note further from the testimony of administration witnesses that the Government could refuse to extradite where an accused American was standing trial in the United States or where the U.S. Government elected to try him here.

Fourth. The argument that ratification of the Genocide Convention would subject the U.S. Government to irresponsible charges of genocide arising out of Vietnam, or our treatment of American Negroes, is without foundation.

Here again, ratification of the Genocide Convention does not alter the present situation to our disadvantage. Even without ratification, there is nothing to prevent a country from making baseless charges of genocide against this country in the United Nations. If anything, ratification would improve our position, because the convention requires an "intent to destroy, in whole or in part, a national, ethnical, racial, or religious group as such." The tragic events in Vietnam and the terrible loss of life, both military and civilian, that has occurred there do not meet the treaty definition. Charges of genocide in relation to the treatment of the Negro community in the United States, which admittedly has suffered widespread discrimination for many years, also are not within the scope of the treaty. Ratification of the convention would, if anything, help us rebut such charges by subjecting our behavior to a precise legal definition of genocide.

Fifth. The argument that provision for the settlement of disputes by the International Court of Justice would override the Connally amendment and unreasonably limit our sovereignty is without substance.

This charge also lacks substance. The Connally amendment applies only to our acceptance of article 36(2) of the Court's statute, the so-called optional clause providing for compulsory jurisdiction across the board. Cases arising as a result of our adherence to the Genocide Convention would come under article 36(1) of the Court's statute, which covers the Court's jurisdiction as provided for in specific treaties. The United States has ratified many treaties containing the same type of provision for the settlement of disputes by the International Court as is contained in the Genocide Convention. Among such treaties are the Supplementary Convention on Slavery, the Antarctic Treaty, the Statute of the International Atomic Energy, and the Convention on the Privileges and Immunities of the United Nations, ratified just last year. A list of these treaties is contained on page 215 of this subcommittee's 1970 hearings. Indeed, our country, in the ratification of many treaties, has proposed that the International Court have jurisdiction over disputes. Interestingly enough, our efforts in this direction have frequently been frustrated by the Soviet Union, not Congress, whose Members on numerous occasions have advocated increasing resort to the International Court.

This provision for the settlement of disputes over the interpretation of the Genocide Convention does not unreasonably limit our sovereignty. Our interests are better served by having any charges of genocide against us considered in a judicial forum like the International Court, rather than more politically motivated forums. Of course, by this provision we do undertake a commitment limiting our freedom of action in a limited sphere, as do the other parties to the convention. This exchange of commitment is inherent in any treaty to which we become a party. Where the exchange of commitments serves our national interest, as it does here, it provides no valid basis for objecting to the treaty.

Sixth. The argument that various provisions in the convention—"in whole or in part," "mental harm," "direct and public incitement to commit genocide"—are loosely drafted and potentially harmful to our interests, is without foundation.

Words in a statute or treaty are not self-interpreting. They must be read in the context of other provisions and in the light of the legislative or drafting history. The hypothetical interpretations of the Genocide Convention advanced by the critics are invalidated by the language of the convention itself and by the records of the negotiation.

Thus "in whole or in part" does not mean that the killing of a single individual becomes genocide. As the negotiating history makes clear, substantial numbers must be involved, and the acts of homicide must be joined by a common intent to destroy the group, for the definition of genocide to be satisfied. The understanding recommended by the Foreign Relations Committee to confirm this point is wholly consistent with the drafting history.

"Mental harm," in turn, would not support propaganda charges of harassment of minority groups, as charged by some critics, because mental harm becomes an element of genocide only when done with an intent to destroy a group. Moreover, as the negotiating history shows, it was inserted for the narrow purpose of prohibiting the permanent impairment of mental facilities, as from the forcible application of narcotic drugs.

"Direct and public incitement to commit genocide" does not cover constitutionally protected speech. It covers speech which calls for the commission of mass murder, which is actionable under our Constitution as in other countries. As the Supreme Court declared in *Bradenburg* v. *Ohio*, 395 U.S. 444:

"The constitutional guarantees of free speech and free press do not permit a State to forbid or proscribe advocacy of the use of force or of law violation *except where such advocacy is directed to inciting or producing imminent lawless action and is likely to incite or produce such action.*" (Emphasis added.)

In any case, no treaty can override a provision of the Constitution, and there is no doubt that the legislation passed in implementing the Genocide Convention will be interpreted in accordance with the first amendment.

In conclusion, I find the objections to ratification of the Genocide Convention without substance. The reasons for ratification, as I suggested earlier, seem to me compelling. Some cynics doubt that the Genocide Convention really "matters." Some say it ranks at the bottom of our foreign policy priorities. Some even say it is an exercise in futility.

I do not agree. We have heard this argument now for over 20 years. I believe the time has come to devote more of our energies and resources to the long term task of constructing some kind of decent world order. Ratification of a convention outlawing the

most blatant crime against humanity will not by itself provide the answer. But it is surely a good place to begin. It should be one of the foundations of the rule of law among nations—a rule of law which, in the long run, is the only assurance of lasting peace.

RECENT DEVELOPMENTS IN MEXICO

Mr. ALLOTT. Mr. President, today's Washington Post contains a very interesting column by Messrs. Evans and Novak on the recent developments in Mexico. Because these developments have a bearing on the perennial question of whether or not a detente is about to break out, I ask unanimous consent that the column be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

SOVIET BACKFIRE IN MEXICO

(By Rowland Evans and Robert Novak)

Quite apart from the vast effrontery of the Soviet Union's aborted attempt to plant highly trained Mexican agents and provocateurs inside Mexico, the sudden exposure of the eight-year-old plot may have a profound anti-Soviet reaction throughout Latin America.

Moscow's diplomatic probing wtih traditionally anti-Communist governments in the hemisphere, just on the verge of success, is now endangered by the Soviet cloak-and-dagger maneuver. The facts of that maneuver, breathtaking in its audacity, are just now coming into focus.

In 1963, under auspices of the Mexican-Soviet cultural exchange agreement, the Soviet-Mexican Cultural Institute in Mexico City chose the first batch of promising left-wing Mexican students for a four-year scholarship at Moscow's Patrice Lumumba Institute. The central figure selecting these first 10 students was the second secretary of the Soviet Embassy in Mexico City (one of the five Soviet "diplomats" now expelled by the Mexican government).

After the four-year university course, during which they underwent indoctrination in Communist Party and revolutionary tactics, the 10 students asked for field training in antigovernment subversion. They formed themselves into the Revolutionary Action Movement.

But Moscow would not provide this revolutionary training in the Soviet Union itself. If discovered, the Mexican government would instantly retaliate.

To keep Soviet hands clean, the students were sent by rail to East Germany, where they acquired North Korean passports. They returned to Moscow and then flew, via Soviet Aeroflow Airline, to Pyongyang capital of North Korea.

In Korea, they were given six months' training in guerrilla tactics, at a location far from the prying eyes of diplomats. Their training completed, they threw away their passports, flew back to Moscow and returned to Mexico on their Mexican passports. It is unthinkable that all this could have been accomplished without Soviet complicity.

Two more groups, totaling 19 Mexican students, followed the precise course of the first 10. Back in Mexico, they set up eight clandestine training centers, most in remote provincial towns, and started recruiting. Mexican counterintelligence agents uncovered the plot and arrested approximately one-third of the revolutionary students 10 days ago.

The official reaction of the Mexican government, probably the most sophisticated in Latin America, was highly unusual public indignation. Five Soviet diplomas were declared personna non grata and sent home. Beyond that, the affair raises serious questions about Soviet standing throughout the hemisphere—as in Venezuela.

Venezuela has been a key Soviet target for subversion, financed partly through Soviet aid to Communist Cuba, partly through Eastern European Soviet satellites. Attempting to warm relations with Caracas by exchanging diplomatic delegations, Moscow finally reached agreement last December after tortuous negotiations conducted intermittently for almost 20 years.

That agreement limits Soviet personnel in the new embassy to 15, including cooks and chauffeurs. So far, only three Soviet diplomats have actually taken up residence. With the explosive Soviet subversion against Mexico now surfaced, Venezuela will undoubtedly clamp additional restrictions on the new Russian embassy.

In Costa Rica, a 30-year ban on Soviet diplomatic activity was lifted several months ago, but no Russian have yet arrived. Against the Mexican backdrop, Costa Rica—a traditional democratic bastion in Central America—may have second thoughts (despite January ratification of a surplus coffee-purchase agreement with Moscow).

Likewise, the Russians have been making strenuous efforts to sign a cultural agreement with Colombia, which renewed diplomatic relations with the Soviets in 1968. The agreement was signed last summer but it has not yet been ratified by the Colombian parliament.

All these careful diplomatic probes by Moscow are now endangered by Moscow's patronage of the aborted Mexican affair. Just how much they are endangered is evident in the formal Soviet response to Mexico's expulsion of the five Soviet diplomats. Unable to deny the facts, the Russians blamed the embarrassing affair on "powers"—that is foreign countries—"that are opposed to Soviet-Mexican relations."

What powers? What motivation? The Russians can't answer that question.

JOBS: THE HEART OF THE PROBLEM

Mr. KENNEDY. Mr. President, because the denial of rights to black and brown Americans has been substantially publicized in recent years, some efforts have been launched to respond to their pleas.

The Equal Employment Opportunity Commission, EEOC, established in 1965, was perhaps most effective under its third Chairman, Clifford Alexander, in making America aware of the cancer of discrimination in jobs.

He sought to achieve gains in employment that would properly establish the right of all to work at whatever job they could hold. But, as has often been repeated by Mr. Alexander and others—the "system" operated to deny fair competition and equal job access to those who were born into our racial minorities.

Mr. Alexander makes it clear, in a recent interview published in the Master in Business Administration—the MBA—that during the late 1960's, while EEOC highlighted the problems of job discrimination for all the Nation to see, in overwhelming numbers, jobs are still denied to minorities today because of blatant racial discrimination.

Mr. President, I believe Mr. Alexander's remarks as published in the MBA deserve the studied consideration of every Member of this Senate. For he not only points to a problem that personally weighs on the lives of those who suffer discrimination, but he accurately emphasizes the need for those of us in the larger society to insure that there will be reforms. Mr. Alexander's comments offer an exceptionally valuable insight and could help effect needed action.

I ask unanimous consent to have printed in the RECORD "Jobs, the Heart of the Problem—An Interview With Clifford Alexander," as published in the MBA, February 1971.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

JOBS, THE HEART OF THE PROBLEM—AN INTERVIEW WITH CLIFFORD ALEXANDER

The MBA: In 1967, upon accepting your post as chairman of EEOC, you told an interviewer: "Jobs are the heart of three-quarters of the problems of the ghettos. This is the key area in the whole field of racial unrest." Do you think that is equally true today?

ALEXANDER. I said then that it was three-quarters. My percentages may be a little smaller or a little larger today. But the economic wherewithal that a job gives somebody, the kind of security it gives, relates to the black today, be he disaffected or not. He needs a job, needs to have the dignity that goes along with a job. Quite unfortunately, the system works against his best interests, and it is difficult for him to get a job that lives up to his potential, that gives him the chance to move along, that gives him the kind of dignity that men and women require.

The MBA: We're talking on all job levels—blue-collar and white-collar categories?

ALEXANDER. Yes, we are. The most dramatic area—and I think the area we tend to spend a great deal of time on—is the blue-collar craft area. The bigotry there is blatant and open. I think in the white-collar areas it's more subtle, but the bigotry is just as real.

We ought to spend a lot more time on the white-collar area, because that's where the bulk of the jobs are. In the cities where most blacks live today, you have huge numbers of white-collar jobs. Over 55% of all jobs in New York City today are white-collar jobs, and that figure will grow within the next decade to close to 70%. This is true in lesser percentages in every major metropolitan area, and in every one of these areas, the population is somewhere between 20% and 75% black. Until blacks hold low, middle and upper white-collar jobs in those central cities, blacks will not be part of this capitalistic system.

Right now, you have funny money programs, like the National Alliance of Businessmen, which bring blacks to work because they need more workers, but which do not bring blacks into middle management positions. You don't find blacks on boards of directors, you don't see blacks in upper level management positions, you don't find the kind of mobility for blacks that you have for whites. And blacks can see that as easily as whites, if not more easily.

The MBA: When you resigned, you said that if the Nixon administration didn't vigorously pursue the policices and practices which you had instigated, it would hear from you "loud and clear." Has there been any attenuation in the efforts in the agency or loss of effectiveness? At the time, I remember Ronald Ziegler said that the administration intended to pursue these policies within the full extent of the existing law.

ALEXANDER. I think that's certainly a quite accurate representation of what Ziegler said. Like so many things that have been said by Mr. Ziegler, Mr. Nixon, Mr. Mitchell and Mr. Hoover, the facts don't necessarily jibe with the statements that they made, nor do the predictions of good faith and good intent go along with the actions of this administration. Jerris Leonard [Atty. Gen. Mitchell's Assistant for Civil Rights] that same year said that the Justice Department would, in the field

of employment discrimination, file over 70 pattern of practice suits—this was after I had accused them of filing none up to May. The final figure was less than a dozen at the end of 1969.

This President, who has talked about bringing people together, has failed in the two years since he's been in office to mention the problems of job discrimination, to give any significant statement to the American people about black vs. white. This President has failed to talk to that problem which is the most pervasive problem that faces America today or faced it yesterday.

The agency that I was a part of, one doesn't hear a good deal from. Part of that problem relates to the fact that legislation setting up the agency did not give it enforcement power. Another part of it, I think, again relates to the attitude of an administration that has, unfortunately, put its heel down on what should be a relatively independent agency and muted a few voices that might have made some sounds in the area of employment discrimination. Thus, blacks and chicanos and other minorities have no particular place to look in the Federal government for help in this area.

The sad, sad fact is that, despite some mediocre and minimal claims made by Nixon and Company, little or nothing has been done. What has been said in the public sense, the kind of statements that set a national tone, has been destructive of whatever black/white progress may have been made. It's generally been the racism of Agnew or comments by J. Edgar Hoover supported by Mitchell on Martin Luther King, or comments by the President about what he is going to do or isn't going to do in trying to integrate housing in this country. Every comment that I can think of has been negative, has been putting the heel on the neck of blacks in this country. And those who really want to do that in the physical sense can get the message.

The MBA: As I understand it, at the time you left, there were no "cease and desist" powers of any sort. You had to rely on either the Office of Federal Contract Compliance in the Labor Department or the Justice Department. You had little success with either. That situation's no better today?

ALEXANDER: No, it isn't any better today. Again, there should be some shared blame for that. Mr. Nixon gets the lion's share of the blame for no progress. The "cease and desist" legislation was presented several times by President Johnson, and Mr. Nixon has opposed this legislation this year. Despite his opposition, it came closest to passage. It was passed by the Senate; it came through the full House Education and Labor Committee. Rep. William Colmer of Mississippi, head of the Rules Committee, bottled it up, and many of the alleged friends of blacks and chicanos in this country then decided that they would go along with Mr. Colmer, and they would not force him to call for a rule to vote the legislation to the floor of the House. If it had gotten to the floor of the House, it would have passed because it's been voted up on previous occasions in the House.

As of the end of this session, there will be no "cease and desist" legislation, because one 80-year-old Mississippian representing the voice of white Mississippi of 40 years ago decided that he would keep this bill in committee. And, one President of the United States has said not a thing about this. Again, much talk about black capitalism, much talk about anything that fit neatly on the sheet of a press statement, but little talk about something that could really affect the substantive rights of millions of people. If it were known that "cease and desist" authority were there, if it were known that an administrative agency could end discriminatory practices by issuing an order, then rights would be protected. There could be appeals from the issuance of that order to relevant Federal courts, but—instead of the present status of EEOC, where one must conciliate after finding a discrimination—once discrimination was found, actually for a second time, the commission itself, as other administrative agencies in the Federal government, could issue an order to end the practice, to rectify the situation, to get back pay, to give somebody a job, or whatever the specific remedy in the case might be.

The MBA: I'd like to talk in detail for a few more minutes specifically about white-collar jobs. What was the situation with management employees when you first joined EEOC? What did you try to do, and has there been any improvement since you left?

ALEXANDER: One thing I did try to do, despite the fact that we had no powers, was to talk publicly, and hopefully loudly, about the nature of discrimination within American industry. This way the first step would be taken by corporations, that is, that they would face the sickness that they've created. Some of them did this. No major American corporation has cured racism—that would be an absurd claim—but some have made some little progress in the area. The best vehicle we found for this was the public hearing. We held two major public hearings, one in New York and the other in Los Angeles, and the New York statistics I've seen since then have indicated really very significant increases, in terms of blacks in white-collar positions, in the areas we concentrated on. In the ad agencies we went from really a zero ground to some blacks; in the banks significant increases in number; a few of the law firms going from none to something.

We looked at a hundred major corporations headquartered in New York, and in which there supposedly has been some significant increase. What I tried to stress at those hearings was that paper pledges and promises didn't amount to a hill of beans. We contrasted companies that were Plans for Progress companies with non-Plans companies, and, without exception in every category, those that had not signed a pledge of good faith and good will were doing better in employing blacks and Puerto Ricans in New York. We then said that it wasn't a question of whether some companies which had signed Plans for Progress pledges were good or bad, the point was that just signing a pledge doesn't do an awful lot. Rather one must approach the problem of equal employment and giving opportunity the same way you approach any other business problem.

You set some numerical goals for yourself, you strive to achieve them. People who are responsible for hiring blacks, for promoting them, for examining whether they're being properly utilized, when these people do not fulfill their function, they ought to be fired. If you are asking a salesman to sell a certain product and he doesn't sell it, you get rid of him after a certain time, or there's some penalty attached for non-performance. Those same criteria have to apply here. Many companies didn't take this up; some did.

What we had, in other words, attempted to do was to say, "This is the law of the land. We're not praying to you to change your habits; we're not going to give you any medals on Equal Opportunity Day, we're saying that this is a responsibility under the law that you have."

We also showed them that, at the time, it was costing them about $31 billion out of the GNP because blacks have been unable to participate according to their talents in this society. By whites giving blacks less pay than they deserve, by not utilizing their full talents, we, white and black in this country, lose a great deal of money every year.

Now, the progress I've talked about that's been made by some New York firms in the past years relates to just a certain category of white-collar job. It is often the entry level and the lower middle level white-collar position. The board rooms still are pretty lily white. In the recent survey of the 50 leading corporations by the Race Relations Center, it was found that of 660 members of the board, only four were black. It also found that the Poor's index of leading executives—which includes those who really make the long bread in these companies—listed 2522 executives from 50 corporations. Of those 2522, not a single one was black. Again, the talk far outstripped the performance.

The businessman who feels that he has made some significant contribution to society because he hires a black or promotes a black to a position where he or she ought to be, is dead wrong. He's probably contributing more to his psyche than to anything else. The businessman that does just that is not fulfilling his obligation under the law. He should examine what his own company is doing, or examine what the potential market is, and reach out for that market the same way he reaches out for the white market. Whites in business get their employees from their social friends, from their church friends, from their club friends, from their school friends, and most of those friends—probably over 99%—are white.

To reach out to the black community for potential employees is no extra effort, is no added something for blacks. It's just doing the same thing you do for whites everyday. It is going to the source of supply, finding out from groups like the Urban League, Workers' Defense League or the A. Phillip Randolph Institute, or CORE, or any of the chicano or the Puerto Rican groups involved with employment—to name just a few—where source of supply is, then going to that source of supply not with a $500 contribution but with a genuine desire to find out if there are people there who want to go to work for you. Then, once they say they're ready, put them on and promote them.

The MBA: Outside of working through government agencies like the EEOC, what type of concerted action can be taken by blacks? You're really in a situation where you're forcing a corporation, you're forcing society, to come around. And this means pressure. What are the pressure points?

ALEXANDER. I think there are several pressure points. Perhaps the most sentimental approach, which may or may not be useful, is to pressure the whites—and this is a broad generalization—who like to think of themselves as believing in and practicing a democratic form of government. They want their children to believe what they hear in school about all men and women being equal. And when they achieve positions of prominence, they like to hold themselves out as believers and propagators of democratic institutions, albeit corporate institutions. When those institutions tend to be hypocritical and tend to do something that undermines the democratic premises, as many corporations do today in their employment practices, this is hardly something to hold out to your son and daughter, who are already skeptical of your behavior patterns anyway. So, for some general peace of mind and some consistency at home, it might be useful for those who are in positions of corporate power to do something about correcting employment inequities.

The second pressure point is that blacks have a tremendous purchasing power, variously estimated from $21 to $40 billion, that they spend on a large number of products. This, of course, could make or break certain kinds of products. It has been said that in the beer industry, for example, 26% of the consumption is by blacks. This is one example. There are other consumer products

where the percentages are even higher. A third consideration for whites is the vast wasting of talent by keeping people down, which I mentioned earlier.

I don't think, however, it's realistic to assume that the major responsibility for those changes is going to fall on black organizations. If the changes do take place—and there are certainly many reasons to question whether they are going to take place—they're going to take place because whites have decided from the point of view of their own self-interest that they need to do something.

This society is indifferent to its fellow human beings. This society and its corporations have done a fair amount to dehumanize whites and have tried their best to do the same to blacks. In the process it has often done something added and extra to blacks. It has made the everyday business of living difficult for blacks. Now, blacks cannot change that by protestations. They cannot change that by some form of violence. It isn't, basically, going to change that way. Whites have to come to some conclusions that they're perfectly capable of coming to. They're going to have to make these changes, they're going to have to do something with this legal entity known as the corporation.

The corporation, as a legal entity, is certainly perfectly capable of adjusting itself to the law; the corporation does not have to stand as a bastion against progress. There is no reason for it to do so. So, if the white individuals in leadership positions without corporations today are ready to assume not just the posture of making statements and uttering platitudes, but are also willing to take some immediate actions, then there will be change. It has been pointed out to them, the necessity for the change. I've done it, countless other people before me have done it. It's been very clear. It's been written about and it's been seen.

If they want to take the ultimate step, they could change this society within a few years. They could see to it that blacks are included in management positions, on boards of directors, in middle management positions, at lower level jobs. Until white corporate executives make that decision, until the foundations make it, and until all those others who potentially control the economic flow in a capitalistic society make it, then there isn't going to be an awful lot of change. It's got to come very fast, now, because there have been some decisions made to educate a few more blacks to the world of the business community; the business schools, at least in some locations, now have significant numbers of blacks; the colleges in some areas have significant numbers of blacks. They are as impatient as their forebears were, only they are overt with their impatience. They are educated in how to make their impatience known to the broader society.

If whites want to sit around corporations and listen to the wails of blacks every single day, hour and minute, then they will have that. There's no question about it. If they want to make some changes, they can have that as well. Blacks cannot make those changes now. Some might say that blacks ought to get their own institutions and work only within them. Some of that is practical and some of it isn't. But the basic point is that this society is controlled economically by a number of significant corporations, that those corporations are controlled in toto by white corporate executives at the top. Were the top different in shading and in attitude, we wouldn't have to have this discussion.

The MBA: There is, it seems to me, at least one great similarity between the lack of action on environmental problems and the lack of action in racial problems. The one thing that's going to force the corporate community into some kind of concerted action on the environment is a strong Federal system of legislation and taxation which penalizes liars, does not penalize the leaders, and ignores special interests. It seems to me that the same is true in terms of Federal leadership now in racial problems. Somebody has got to say, "God damn it, this has got to stop." How do you bring that about?

ALEXANDER: It's an important comparison because, I think, that you will see those penalties in the environmental field in two years. You will see the white society generally moving to protect its environment. And, again, the problems relating to minority groups and their status in this society will still be ignored, because this administration refuses to deal lawfully with black rights. It can deal very easily, it seems, with, or talk about, problems like environment, problems that are "away" and less human. It cannot deal, it seems, with blacks that are face to face with it and say, "where are you?" It does not seem to want to deal with chicanos and the problems that they face. So, it isn't going to push any legislation.

If we pushed and if we passed legislation, we would then be relying upon the Spiro Agnews of this world for enforcement; we would be relying on the John Mitchells of this world for legal actions.

The basic issue is, "Yes, we do need laws that penalize. Don't treat a violation, discrimination, like you would a child who just took a piece of candy. Treat it the way you would anyone else who has done something that is against the law." And when it's taken that seriously, when someone's going to—and should—lose a job for being a bigot, then we're going to be serious in this country. To me, there is literally no difference between taking somebody's pocketbook, which would be called either larceny or robbery, and giving them less money for the same work as whites. It does the exact same thing it steals money from somebody.

Right now, for every $100 a white man earns, a black earns $61 for equivalent work. In the early 1950's, we were at $57 and here we are in 1970 and it's $61. At that rate, it would probably take well over a century for blacks to achieve parity with whites. Well, I wouldn't expect any of your readers to tell their children that they have a hundred years to wait for parity. And I'm not about to tell mine that. So, I would presume that my generation or the ones that come after me are going to deal with whites with a sense of impatience, a sense of skepticism, a sense of "you show me that you mean business for change and stop fooling around." All they've been doing for as long as I've been alive, from all I've seen and from all I've read is fooling around with black lives and black opportunities.

It is imperative after passing legislation to enforce it, and they haven't done that. It is easy then to enforce legislation, and they haven't done that. A great deal of this rests with the President of the United States, a great deal of this rests with corporate executives, a great deal of this rests with other power clusters in this society such as the media. If you wanted to look at employment and employment problems, one need only look at the evening news and watch the three major networks and think about how long you have to watch before you see a black face. Think about how much of the news is related to black, brown and yellow people around this world and about how long it is before you hear a black voice or see a black face describe that to you. I asked in the two public hearings how many of the media have blacks on their boards of directors, and, of course, the three large networks had none. Yet they are transmitting news to the world at large. This is unfortunately true in other parts of the media, as well, but it is most pernicious right there.

So there are a series of power clusters which could make significant changes if they got together and could do it almost immediately. But they have decided that they want to go for another talk phase, that they want to deal with the issue verbally. And, again, it is not up to blacks to change that. Blacks can only point out the sins and omissions of some whites—and perhaps some of their own.

The MBA: We've talked about corporations up until now—do you think that blacks in government are getting a fairer shake?

ALEXANDER: Government itself is not an equal opportunity employer. This government in particular has made many noises about what it would like to be and then proceeded to violate those statements. As a recent example, as you may remember, the Department of Defense had made loud noises about discrimination in the armed forces and talked about how it's important to get more officers at higher levels.

I looked up the statistics for the Department of Defense and the Department of the Army after they had made these noises. I looked at the supergrade category, that is, those who make over $25,000 in the U.S. government, the G–16's, G–17's and G–18's. In the Dept. of the Army there are 362 of them, and there isn't a single black amongst them. In the Dept. of Defense there are in the supergrades, 1,093 men. Of that number, three are black, far less than 1%.

How can that Dept. of Defense and its Secretary, who doesn't have a single black Assistant Secretary, be making noises to the various services about getting more captains, colonels, and lieutenant colonels. Wouldn't it be appropriate and doesn't it probably happen that the all-white generals look and say to the Secretary of Defense, "Now, come on, Melvin. Who are you kidding? Look at your own house before you tell us about the problems of racism in the service." And this permeates a fair amount of the Federal government.

In some rare cases there have been decent employment situations in the Federal government. In some rare cases, there's been progress. In most cases there has been a status quo that is about the same as in the private sector. Add to that that the government itself maintains testing procedures that it outlaws in the private sector. It has culturally biased tests. The Federal entrance examination is a test that's given for over 200 jobs. How can one single test tell anyone anything about 200 jobs? What it can do is screen out rather than bring in applicants. What tests generally do is to work against minorities. The tests are more often than not unrelated to the job the employer expects to be performed. And that's what is happening in the Federal government today. Thus, the government is hard pressed to hold itself out as an example.

The laws, as made by the legislative branch of the government, are pretty clear. The Supreme Court decisions—the few that you might have—are pretty clear: discrimination is against the law, and equal opportunity is the law of the land. The execution, by either the government or the private sector, is far away from the law. In other words, they are being lawless. With all the claims of law and order that one hears today, this would be a very good area to carry it out in. We don't see quite as much law and order by Mr. Mitchell and Co. in this area as we do in some others.

The MBA: The picture you're painting is generally pessimistic.

ALEXANDER: I'm not of the school that thought this problem was discovered two or three or four years ago. I'm not of the school the saw two societies growing rapidly apart. The two societies have been apart as long as I've been alive, for as long as A. Phillip

Randolph has been talking about the problem back to the early Twenties, for as long as blacks were in a position to make known how violently they felt about the oppression that they experienced. I guess it sounds pessimistic to anyone who hasn't listened to it before.

The difference, I think, today is more blacks are coming in contact with whites, so whites aren't capable any longer of saying how pleasant it is that they don't really have any anti-black feelings themselves, because during their lifetimes they don't have any contact with blacks. That is very hard to do in today's society. That's perhaps the only change that's taken place.

Now, whether a substantive change in the position and status of blacks will come from this is a question on which I haven't got any good evidence to make me optimistic. I will be optimistic when more whites take more action.

Some whites, more than used to, I believe, are doing something. That is, perhaps, something to be hopeful about. I wouldn't tell my son, or someone between my son's age and mine, to become hopeful because of the actions of a few whites. I think that blacks, just as whites, ought to be pragmatic, ought to look for actual change and, when they see it in some great substance, then they can rejoice. Until that time, they ought to be very wary, very skeptical and very questioning of white motives, attitudes and society.

ANNIVERSARY OF BYELORUSSIAN INDEPENDENCE

Mr. PERCY. Mr. President, on March 25, 1918, the Byelorussian people proclaimed their national independence and their determination to govern themselves in a democratic manner. Before that year was over, however, the Soviet army had seized Byelorussia, and thus ended the independence of Byelorussia for many decades.

Those of us who enjoy a life of freedom in a democratic nation may not fully realize the plight of the Byelorussian people whose government institutions and national life are subordinated to the purposes of the Russian Communist system, without regard for the well being of the Byelorussians themselves.

Yet, as free men in a free society, we have a moral responsibility to take cognizance of the deprivation of freedom in Byelorussia. We should be united in spirit with the Byelorussians who thirst for freedom. And we should take this occasion to remind the world that independent Byelorussia lives in our hopes and prayers.

HUMAN RIGHTS AND INTERNATIONAL LAW

Mr. PROXMIRE. Mr. President, the General Assembly of the United Nations passed a unanimous resolution on December 11, 1946 affirming—

> . . . that genocide is a crime under international law which the civilized world condemns, and for the commission of which principles and accomplices—whether private individuals, public officials or statesmen, and whether the crime is committed on religious, racial, or any other grounds—are punishable . . .

Under the terms of the Convention on the Prevention and Punishment of the Crime of Genocide—

> . . . genocide means any of the following acts committed with intent to destroy, in whole or in part, a national, ethnic, racial or religious group, as such:
>
> (a) Killing members of the group;
>
> (b) Causing serious bodily or mental harm to members of the group;
>
> (c) Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part;
>
> (d) Imposing measures intended to prevent births within the group;
>
> (e) Forcibly transferring children of the group to another group.

The convention was signed by the U.S. representatives on December 11, 1948. President Truman transmitted the convention to the Senate on June 16, 1949. Public hearings were held by a subcommittee of the Committee on Foreign Relations in January and February of 1950.

Early in 1964, 10 Senators joined me in a bipartisan appeal to President Johnson to help in urging the Senate to ratify the Genocide Convention. Unfortunately, no action was taken on the convention.

In the spring of last year, after President Nixon had urged Congress to approve the convention, hearings were held under the chairmanship of the Senator from Idaho (Mr. CHURCH). The full committee then reported the Genocide Convention by a vote of 10–2.

This year, hearings were held again on the convention to hear representatives of the American Bar Association and former Justice of the Supreme Court of the United States Arthur Goldberg.

The former Justice eloquently spoke on behalf of the Genocide Convention. He made one of the best cases for ratifying the convention.

He pointed out that the diplomatic embarrassment from not ratifying the convention was not the major reason for our need to do so now. The important thing is to be a leader in the fight to protect human rights. Our tradition, from the Declaration of Independence to the Bill of Rights, demands that we accept this responsibility.

Certainly we all agree that genocide is wrong and unjust. The important thing is that by ratifying the Genocide Convention not only will we do what is morally right and just, but we will be taking effective action to prevent genocide in the future.

I have pointed out many times that genocide is a matter of international concern. But the issue is not whether genocide is a domestic or international issue. The important thing is to resolve the problem of how to move toward expanding international law so that future generations will live under a rule of law. If we fail to establish a system of international law, then, in the words of Justice Goldberg, "I do not see much hope."

The thrust of the Genoide Convention is to expand the dimensions of laws designed to protect human dignity. The protection of human rights is crucial for world peace.

The United Nations and international law are a new frontier. The establishment of that frontier means that perhaps in time, in our children's time, a new dimension will be added to international law. The way to achieve these results is to ratify the Genocide Convention now.

JACKSON STATE A YEAR AFTER

Mr. KENNEDY. Mr. President, last year, amid the turmoil and disruption in many of our national institutions, one violently tragic event shamefully mirrored the inhuman treatment suffered by black Americans throughout our history.

On the campus of Jackson State College in Jackson, Miss., two murdered students and 14 injured ones were counted in the toll after the violent assault on that campus ground.

I was reminded of the yet to be recovered stability at Jackson State by Stephan Lesher's account in the New York Times Magazine of March 21, I commend its reading to every Member of the Senate.

Mr. President, I ask unanimous consent to have printed in the RECORD "Jackson State a Year After," as presented by Stephan Lesher, in the New York Times Magazine of March 21, 1971.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

[From The New York Times Magazine, March 21, 1971]

JACKSON STATE A YEAR AFTER

(By Stephan Lesher)

Nearly a year has passed since a 28-second fusillade unleashed by Mississippi highway patrolmen and city police at Jackson State College killed 2 young blacks and wounded 12 others on a heavy-lidded midnight last May. There were national cries of outrage; Federal Bureau of Investigation agents swarmed over the styleless, treeless, brick-and-concrete-block campus; two grand juries "investigated" the shootings; the Scranton Commission issued its comprehensive findings; a special biracial committee reported to the Mayor of Jackson.

No one has been punished. No one is going to be. There is the deepseated and historically justified belief among Jackson's blacks that but for the proximity in time to the killing of four white students at Kent State University, the Jackson State shootings would have attracted scant national attention. Where, they ask, was the public breast-beating after the Orangeburg massacre in 1968? Or after another young black, Benjamin Brown, was slain on the Jackson campus in 1967?

No one—least of all Jackson's blacks—expected a different outcome. The murderers of Emmett Till and Medger Evers, among others, have gone unpunished. Yet, there is a barely perceptible chance that the Jackson State violence will be remembered as more than simply another brutal chapter in Mississippi's disregard for black humanity. For since the shootings, in this area representative of the Deep South's worst instincts and antediluvian social and political leadership, there are genuine, if faint, stirrings of local conscience, a stumbling, almost pathetic groping for a vague and shadowy goal called "racial harmony"—but an unaccustomed, almost unprecedented groping, nonetheless.

With a population of 170,000 (about 40 per cent black), Jackson is a country town grown up, a scrubbed city seeking a cultural identity rather than a rural backwater, though its leaders have until now resolutely denied power to moderates, let alone liberals.

Being in the city these days is like watch-

ing Charlie Chaplin squatting splayfooted by a mountain stream, forlornly but patiently panning for gold that you know he'll never find. But you cheer him on, for somehow the effort itself bears seedling hope. From Jackson State's bloody soil, there have sprung some fragile sprouts:

After the shootings, Jackson Mayor Russell Davis appointed a biracial committee (itself an unprecdeneted step), a majority of which submitted a report roundly critical of the Mississippi Highway Patrol.

The Mayor fired the city's inept police chief and named in his place a man who issued regulations prohibiting use by his men of derogatory terms like "nigger," and who formulated a comprehensive riot-control plan which emphasizes restraint.

Mayor Davis tried to appoint a black man—Jackson State President John A. Peoples, Jr. to the influential city planning board, and though he was voted down, 2 to 1, he succeeded later in appointing a black to the city school board. There are two other blacks in the councils of city government.

A 29-year-old white man defied tradition by publicly denouncing the whitewashed findings of the state grand jury, of which he was a member, when it reported on the Jackson State shootings. The judge held him in contempt, then shrank from imposing a penalty.

The Jackson Chamber of Commerce, a singularly potent force for molding local opinion, broke new ground when it invited blacks to participate in writing a comprehensive community development plan soon to be presented to the city government.

As part of the program, the Chamber will recommend construction of 10 new public swimming pools—a subject on which white Jacksonians have been heretofore consummately paranoid. (Public swimming pools were closed in 1963 to avoid integration. They never reopened.)

If the reaction by whites seems pallid, the most notable response by the students at the predominantly black college has been the formation of the first campus chapter of the National Association for the Advancement of Colored People. Notions of racial progress in Mississippi, among blacks as well as whites, trail most of the Deep South, not to speak of the nation, by 10 to 15 years.

There are few outward reminders of the shootings last May. Alexander Hall, the huge, buff-colored, staple-shaped dormitory that houses 1,050 women students, still bears the pockmarks of some of the more than 400 bullets and shotgun pellets sprayed over the 200-foot length of the building by about 50 policemen and patrolmen. And the thoroughfare that bisects Jackson State—named, with grotesque irony, Lynch Street—has been closed to traffic by a 6-foot-high chain-link fence.

Lynch Street had been the focal point of trouble at Jackson State every spring since 1965. Annually, passing automobiles have been pelted with rocks and bottles. Fights have broken out between students and "corner boys"— habitués of bars and pool halls abutting the campus along Lynch.

Repeated requests by college officials that the street be closed to traffic had been regularly turned down by city authorities. The avenue is a major connector between downtown Jackson and a large, white suburb.

On May 13, 1970, in the wake of the Cambodian invasion and the Kent State killings, students and corner boys again erupted in a night of rock-throwing and setting trash fires. A worried Mayor Davis requested National Guardsmen but was persuaded by students to keep police and troops off the campus. Lynch Street was sealed off and the crowd dispersed. At 1 A.M. Peoples met with about 25 students in his home. They agreed the rock-throwing seemed to have started spontaneously.

"I mean, like some people say the Vietnam issue . . . is a big thing on the campus, but I don't think that is true," a student explained later to the President's Commission on Campus Unrest headed by former Pennsylvania Gov. William Scranton. "When you go to class every day and in overcrowded classrooms and it is hot and sweaty in there, you just get fed up with it, and you know you should have had more classrooms and your classrooms should have been cool and you are sitting in a 100-degree classroom and that night it's the same thing and you ain't got nothin' to do. You just got to do something, and it is just one thing led to another, so that's the way it was."

Another student explained it this way:

"They throw rocks because they are angry. And they throw rocks at cars passing on Lynch Street, those cars carrying whites, because, I guess, always in the back of your head you're thinking, 'Somebody hasn't been doing something right all along and if you can't get to the source, get to the next best thing.' . . . If you can't get to the politicians and the government officials that are white here, and get them to do a little better, then you go to the next best thing. You get something that looks a little like them, I guess."

It started again the next night, but this time police and patrolmen moved in force. Shortly after midnight, in response to some cursing coming from the 100 or so students in front of Alexander Hall, and to a few rocks and bottles tossed from that direction, the police and patrol opened fire. All the students were separated from the authorities by a 4-foot high chain-link fence. No teargas cannisters had been tossed to disperse students. All witnesses, except Inspector Lloyd Jones, commander of the highway patrolmen at the scene, testified later that students were retreating toward the dormitory when the shooting began. No warning was issued to the students. No order to open fire was issued to the police or the patrolmen.

'I think there are about three more nigger males over there, one of 'em shot in the arm, one of 'em shot in the leg and one of 'em somewhere else," Inspector Jones radioed his headquarters. "They ain't hurt all that bad. Them gals, it was to nigger gals . . . shot in the arm, I believe. . . . There are two nigger females and three males we just discovered, that's a total of 10 . . . Here's another one; let me see what this is." Then, in reference to 21-year-old Philip Gibbs, a married junior with an 18-month-old son, and 17-year-old James Earl Green, a high school track star on his way home from work, Inspector Jones radioed jocularly: "We got two students 10–7 here." In radio code, "10–7" means "out of service." Gibbs and Green were dead.

"The facts, regardless of what they show, will record a dark day in the history of this city," a visibly shaken Mayor Davis told his townsmen via television after the shootings. The Mayor, in office less than a year at the time, later announced an action out of character for a white Mississippi politician reacting to a racial incident—he indicated that he intended to get the facts and, to do so, he was granting a request of the Mississippi N.A.A.C.P. to appoint a biracial committee of three whites and two blacks. And the blacks he chose (at the N.A.A.C.P.'s suggestion) were two young, activist civil rights lawyers, Fred Banks and Rubin Anderson.

With the blessing of Gov. John Bell Williams, the highway patrol announced it would not cooperate with the Davis committee. City Commissioner Ed Cates who, with Davis and Commissioner Tom Kelly, is a member of Jackson's governing troika, advised city policemen to do likewise. Cates, who wants to be State Attorney General, contended Davis's commission had no legal standing. Several policemen subsequently did testify, but it did the committee little good. Police who were at the scene of the Jackson State shooting all said none of their group had fired—a contention the F.B.I., through ballistic tests, later proved to be a lie. Davis, on the basis of police testimony, publicly exonerated his men and, consequently, was embarrassed by the F.B.I. findings.

Hampered though it was by lack of cooperation, a majority of the Mayor's committee—the two black members plus a young white attorney, William Pyle—developed enough information to make a series of recommendations. They urged the closing of Lynch Street, establishing of better liaison between the college and the police, especially in periods of crisis, increasing the campus security force and appointing student marshals to help keep order, and, most important, ending the use of the Mississippi Highway Patrol for riot control in Jackson.

"The patrol," the committee reported with refreshing candor, "has proven itself undisciplined in riot situations."

That, needless to say, was not the prevailing opinion in Mississippi's power structure. Governor Williams utilized a statewide television hookup to report the results of the highway patrol's own "complete and impartial investigation" of the shootings: "Gunfire . . . came from the third-floor stairwell window . . . [which] had already been broken out before the officers arrival . . . A muzzle blast from that window was observed . . . Officers picked up one spent, mashed bullet and several empty .32-caliber cartridges . . . [not] fired from weapons of the officers.

Three senior highway patrol officers had interviewed highway partolmen who participated in the shootings. They interviewed no one else. They did not visit the campus. They looked at no photographs. No one cross-examined the patrolmen. No physical evidence was examined. That was the extent of Governor Williams' "complete and impartial investigation." F.B.I. agents found no evidence of gunfire from anywhere in the dormitory. The window in question, they found, was shattered by incoming fire. Jackson Police Sgt. Charles Lee, who was in charge of controlling sniper fire, saw no muzzle flashes. "I was looking more for flashes than anything else," he said. "I never saw any." Williams' "spent mashed bullet" turned out to be a buckshot pellet fired by a policeman. The .32-caliber cartridges were found on the street side of the chain-link fence separating the dormitory from Lynch Street—too far from the dorm, the F.B.I. said, to have been shot from weapons in or near the dormitory.

What the authorities did that night, Williams explained, they did "in the interest of self-preservation. . . . The officers did not instigate the problem; they did not encourage it. The responsibility must rest with the protesters."

The Governor was not alone in his fantasies. Columnist Tom Ethridge of the Establishment-supported Jackson Clarion-Ledger imagined police and patrolmen besieged by "opportunistic, publicity-hungry politicians . . . hard on the South and easy on Communism." He urged Jacksonians to become home-front Molly Pitchers: "To boost their morale and show your appreciation, maybe you will want to give our police . . . and patrolmen a friendly wave, a smile, a few kind words . . . maybe even treat some to coffee, cigarettes, candy and sandwiches . . ." Ethridge also devoted a column to "Innocent Victims of Tragic Events." These did not, of course, include the dead and wounded blacks at Jackson State, but rather "a Jackson citizen, father, war veteran and taxpayer in good standing," who complained: "Why did they want to throw at me and damage my car to the tune of $75 worth of broken glass and dents?"

The best friends the policemen and patrolmen had from a very practical standpoint,

however, were, "the good ole boys" of the bench—the men to whom justice, Mississippi-style, is entrusted. Federal District Judge Harold Cox, who summoned a grand jury at the urging of the Justice Department, wasted few words in telling the jurors what he expected:

"No person participating in a riot or civil disorder or open combat with civil authorities," he said, "or failing to disperse on order of such authorities, or failing to immediately disassociate himself from such a group or gathering, has any civil right to expect to avoid serious injury or even death when the disorder becomes such as to require extreme measures and harsh treatment."

State Court Judge Russell D. Moore thought so highly of Judge Cox's charge that he quoted it verbatim when the Hinds County Grand Jury was empaneled. Judge Moore felt compelled to add his own touch, however:

"The law of this state specifically provides that the killing of a human being shall be justified when necessarily committed in lawfully suppressing any riot or in lawfully keeping and preserving the peace. Were this not the law and not supported by the vast majority of the law-abiding citizens of this state, then our police officers would be powerless in the face of those who would destroy our government and society."

The state grand jury completed its work first. (Judge Cox had recessed his jury in less than a week to permit him to make an extended trip to the Union of South Africa.) Its report, though by no means surprising, must stand as a classic of involuted logic. It roundly condemned Mayor Davis for the committee he appointed to probe the shootings because "at least three members . . . were already publicly opposed to anything that law enforcement, and particularly Jackson police, stood for." The Mayor was denounced for having stated that Jackson police did no shooting that night and for having subjected policemen "to the rankest kind of pressure and intimidation" by requiring them to testify before his committee. No mention is made, however, of the reason Davis said his men did not shoot: that they had lied to him.

While condemning the report of the majority of the Davis committee, however, the jury concurred in all its recommendations, save the one barring the highway patrol from participating in riot control in Jackson. The jury also found time to comment on one or two other pressing matters.

"This grand jury urges . . . increasing the daily fee paid to grand and petit jurors. This jury has found that the small amount paid them is inadequate to cover their reasonable and necessary expenses . . . We compliment the Board of Supervisors of Hinds County on the remodeling of the grand jury room and would urge that the air-conditioning system be fixed."

District Attorney Jack Travis took the extraordinary step of requiring every member of the grand jury to sign the report which Travis had a large hand in drafting. It was then that a young white man, L. Morris Spivey, himself a graduate of the University of Mississippi Law School, decided to buck the system. He refused to concur in the report.

Morris Spivey is an unlikely maverick. At Ole Miss he was considered a segregationist, largely because he believed the Federal Government had overstepped its authority in ordering the admission of James Meredith. Spivey is a onetime staff employe of Mississippi Senator James O. Eastland. A 29-year-old bachelor, he lives with his parents in a comfortable suburb in north Jackson and is a modish dresser who wears long, neatly trimmed sideburns and tinted, goggelike eyeglasses. He had no intention of making waves. In fact, it was his view that from the evidence presented it would have been impossible to return any indictments against individual policemen.

But the shrill tone of the grand jury report, its cavalier disregard of any evidence demonstrating police overkill, its suppression of eyewitness accounts offered by blacks and its blatant invention of facts to support the weak theory of provocative sniper fire were too much for Spivey to swallow.

The grand jury maintained that most fire was directed either at the third floor stairwell—the location of the alleged sniper—or in the air. It ignored eyewitness accounts of newsmen on the scene who saw patrolmen systematically fire into all landings of the five-story building and at ground level; there is no reference to the more than 400 bullet and pellet marks peppering the entire 200-foot length of the dormitory and the dozens of rounds fired across the street toward the campus cafeteria where young Green was killed.

"To believe that report," Spivey explained, you have to believe that every white person who testified told the truth and that every Negro lied."

Under Mississippi law, Spivey was prohibited from discussing details of the grand jury deliberations for six months. But when his name was published as the only dissenting juror, he was, quite naturally, besieged for an explanation. He said simply there was insufficient evidence to prove there had been sniper fire and, even if there had been, it was too limited to warrant the massive response by the authorities.

Judge Moore responded by citing Spivey for contempt. At a hearing, Moore decided to postpone a ruling, refused Spivey's request for a jury trial and declined to withdraw the citation. "He could slap it on any time he wants," complained Sam Wilkins, Spivey's lawyer.

With the combined power of Mississippi's chief executive, the press in Jackson and the state and Federal judiciary seemingly in concert to assure that only a one-dimensional tale would be told about the events at Jackson State College, it is hardly surprising to find that the reaction by college students was muted and that college administrators were loath even to discuss them.

Dr. John A. Peoples Jr. is a lithe, 45-year-old, moist-eyed man who, except for the gray speckling his close-cropped hair, looks as if he could still take a turn at his old tight end position at Jackson State. A native of Starkville, Miss., Peoples worked as a public school teacher and eventually became an elementary school principal in Gary, Ind., although none of his public school background is included in his official biography—perhaps because it seems an unbecoming prelude to a college presidency. But Peoples holds both M.A. and Ph. D. degrees from the University of Chicago. (Only 25 Ph. D. degrees dot the 198-member Jackson State faculty, and Peoples's predecessor, Jacob L. Reddix, Jackson State president for 27 years until Peoples got the job in 1967, holds only a B.S. degree from Illinois Institute of Technology.)

The quiet-spoken Peoples likes to impress upon interviewers that he spent 2½ years as vice president at Jackson State, a year as assistant to the president of the State University of New York at Binghamton, and was elected to participate in the American Council on Education's academic administration internship program. Yet, there is no trace of bluff about the man; rather, there is the faintly debilitating scent of insecurity borne of the effort to serve two masters: his longing to make Jackson State an institution of quality and self-respect, and his need for obeisance to the State of Mississippi and its insistence upon black mediocrity.

"We resent everyone ignoring us until we have a riot," Dr. Peoples said with a note of desperation. "We were here a hundred years before the riot. We have dreams and goals . . . But we exist in the milieu of Mississippi. I don't want an article to come out that calls John Bell Williams an s.o.b. I've got to go before the Mississippi Legislature and present our program and our needs . . . If I had 200,000 blacks out there who could elect 25 black legislators, I could go and make a public appeal. But blacks have no power in Mississippi."

He said that if he publicly asked the Legislature for the millions he needs for facilities beyond normal appropriations, "it would kill the whole program." He needs 3-million in capital funds alone for a new dormitory; fewer than half of Jackson State's 4,500 students are able to live on campus because of space shortages.

(The university's position is so sensitive that in February, precisely nine months after the shootings, a public-relations officer at Jackson State pleaded over the telephone with an organization to forgo its plans to create two scholarships in the names of Philip Gibbs and James Earl Green, the two young men who died in the police gunfire on Lynch Street. "That'll kill us with the Legislature," he groaned.)

"In the South," Peoples said, repeating an old Dixie canard, "the white man likes individual blacks, Northern whites talk a good game, but don't know individual blacks. What I do, I do personally—and I can get more that way than any other way."

Peoples has had to try to get a great deal. His student body, which numbered 2,250 when he became president in 1967, has since doubled. The faculty, first integrated in 1967, has also doubled since then, and though it is now 25 per cent white, it remains largely inbred: more than a fourth of the members are themselves Jackson State graduates and another 40 per cent come from other Southern black colleges. Nearly half the 4,500 students come from families earning less than $3,000 a year and 40 per cent more come from homes with an income of less than $6,000 a year. Roughly 70 per cent of the students come from the red clay hills and Delta country of rural Mississippi. Peoples has instituted a number of remedial programs as part of the "education opportunity" he believes Jackson State offers to those "who won't have an opportunity to attend the more, shall we say, prestigious colleges because of financial reasons and an inability to make high marks on entrance examinations."

"We do in five or six years what others do in four," says Mrs. Aurelia Young, a music theory teacher at Jackson State for 23 years. Students, she explained, often require the equivalent of an extra year or two of remedial instruction to qualify for college-level courses. "I get so mad at being invited to Cornell or even to the University of Mississippi to take courses on teaching the disadvantaged when we've been doing this all our lives . . . But we get no credit for our methods."

"Our teachers and the whole institution," says Peoples, "have developed an *expertise* in the education of youngsters in disadvantaged circumstances. The large proportion of our teachers have come through such circumstances themselves. They're used to teaching under conditions which are themselves deprived—they're underpaid, don't have the equipment they need and they work in poor facilities. But they were teaching the disadvantaged when it wasn't the thing to do. We do these things as a matter of course, whereas in New York, they get special grants for them . . . ."

Grants to Jackson State from private sources are as scarce and as hard to come by as moon rocks. Of the school's $6-million instructional budget, roughly half comes from the state and the rest derives about equally from student fees (which average $350 a year per student) and Federal grants. But

private grants this year number eight and total only $187,620.

Despite Peoples's efforts to expand the curriculum in business education and liberal arts, the overwhelming number of Jackson State graduates become public school teachers. Of the 476 graduates in 1969, 362—or 76 per cent—became teachers, all but 51 in Mississippi schools. This recycling of unsophisticated rural blacks through underfinanced colleges where they are taught by people from similar circumstances to teach yet another generation of the "disadvantaged" has created, in the main, a sealed-in educational vacuum; ambition and achievement float gravity-less, knowing neither up or down; egos are tranquilized as they race for escape but, like a hamster on an exercise wheel, get nowhere.

"This type of student, he don't really know how to hate," says former Black Muslim Degecha X, a 15-year career soldier, who, at the age of 37, quit the Army to enter Jackson State and prepare to teach emotionally disturbed children. "He's afraid to get involved . . . Mothers are out scrubbing floors for white folks and sending these kids to Jackson State. "You're doin' better than I ever did," they tell the kids. 'You better stay outta that mess' . . . And 70 per cent of 'em are on a loan and they got this hangin' over their heads and they don't wanta blow it."

Music teacher Aurelia Young sees another reason for apparent student docility after last year's shootings: "This is nothing new to us, the killing of black people. It's one of those 'life-must-go-on' things . . . you have to block certain things out of your consciousness that are too terrible to remember . . . I'm just now pulling myself out of it and I've decided I'm about ready to quit my civil rights activities and the futility of it. I'm 55. I tell my students it's their turn. As far as I'm concerned, it's time for my own self."

A number of students are beginning to feel the same way. "On one hand, they're angry," says Dr. James Harvey, a white political science teacher who joined the Jackson State faculty after the shootings. "Yet, they all feel they'll make something of themselves. It's almost a utopian feeling, but aren't we all a little like that? One student accepted a graduate scholarship to Harvard. She said to me: 'I know they're using me. But I'm using them, too.' "

"A week after the shootings—into August, even—people were mad," recalls Constance Slaughter, a 24-year-old black attorney working with the Lawyers' Committee for Civil Rights Under Law in Jackson. "But, finally, students realized this is the way it is in Mississippi. A black man does not, cannot get justice in the courts. Maybe they're just being realistic, the students. Maybe there's nothing to be done about it short of violence."

Miss Slaughter decided to try another way. On behalf of the families of Gibbs and Green and several of the students wounded at Jackson State, she filed a $13.8 million suit against the Governor, Highway Patrol Inspector Lloyd Jones and a number of other state and local officials and policemen. She doesn't hold out much hope for the success of the suit, but she thinks it's worth the effort.

"Once you have a cop like Lloyd Jones," she says, "who's accustomed to brutalizing blacks and he doesn't have to account for his actions, he'll go wild. But once he has to account for his actions, he may think twice. He may continue to beat heads, but he'll think twice. If we win, that's beautiful. But even if you lose, it'll educate the cops. It's like the Scranton Commission. A lot of students got a big kick out of Jones getting up there and sweating and having to say 'black' instead of 'nigger' and 'yes, sir' to the black men on the commission . . . Black people here and the students were upset for a few weeks, but nothing really changes. Almost all the students came back when school reopened, even though most of them had said they'd never come back. One of them said to me, 'We had no other place to go.' "

Lloyd Jones still is an inspector. Nothing much has happened to him except, according to friends, he has received a great deal of favorable mail "from Maine to California" for his stolid defense of the highway patrolmen who unleashed their weapons at Jackson State students that night. As for Governor Williams, he has expressed "uncertainty" over the wisdom of highway patrolmen like Jones using the term "nigger" over state patrol radio broadcasts.

Sometimes, there is an edginess among students, though the targets of their anger may be misplaced. In one class, Dr. Kenneth Rainey, a white English teacher, was reading a segment of "Huckleberry Finn" aloud, a passage where Pap is ranting about a "free nigger" he met and how he was "a p'fessor in a college, and could talk all kinds of languages, and knowed everything. And that ain't the wust. They said he could vote when he was at home . . . Thinks I, what is the country a-coming to? It was 'lection day, and I was just about to go and vote myself if I warn't too drunk to get there; but when they told me a state in this country where they'd let that nigger vote, I drawed out. I says I'll never vote ag'in."

A young man jumped up from his seat and snapped: "I don't have to listen to that fascist stuff." Before Rainey could explain the satirical irony of Twain, the student walked out and later dropped the course.

For the most part, however, students are occupied with their own destinies and hopes; nearly all have a desire "to do something that will help the black man, the community," as one senior put it. But when he was asked how, he replied. "I don't know. Work with people, I guess."

Like most of his classmates, this young man planned to become a schoolteacher, pinning his vague hopes for change on the good of education.

"Black Southerners without an education," Aurelia Young says, "believe education is the answer. They have drilled this into the kids. They've got to get an education or things won't be changed."

Dr. Peoples shares this hope. "His dream is to educate," says Degecha X about Peoples. "He tries to do this within a chaotic atmosphere . . . This is the waste exit of the United States. I mean, that man's aged 10 years in the past 12 months."

If Peoples is aging prematurely, one reason may be City Commissioner Ed Cates, whose answer to the problem of Jackson State is to move the campus to the outskirts of the city rather than leave it as an essentially urban school in the midst of the black community. (Peoples says Cates first proposed, in private conversation, moving the college clear out of Jackson—but Cates denies this.) The suggestion pinched some nerve ends at the campus. For one thing, the college's 13-member Board of Trustees is appointed by the Governor and is all white. For another, the state has shown itself fully capable of closing a black college should it offend white sensibilities. Less than a decade ago, Mississippi used its power of eminent domain to eradicate small black Campbell College after the college had housed Freedom Riders on their return to the state for arraignment.

Peoples took the unusual step for a black college president of denouncing Cates' suggestion publicly. He went further by accusing the commissioner of keeping him off the city planning board because he refused to cooperate with the scheme.

Cates, 41 years old, is a smallish, pleasant-faced man, slightly stooped and paunched, and given to referring to himself with the papal "we." He wanted to move Jackson State out of the ghetto, he says, because the President's Commission on Campus Unrest suggested that ghetto environments sparked several campus riots. He said that if the college were moved, Lynch Street could be reopened; public housing could be constructed on the present Jackson State site; money from the sale of Jackson State could be used to build "a brand spanky new college facility for Jackson State." When Peoples "summarily shunted aside" Cate's suggestions, "we could not help but ask ourselves this question: Is the vision of Dr. Peoples so parochial that he sees only the college as the total focal point of his existence . . .?

It was this "parochial" view that forced Cates to oppose People's nomination by Mayor Davis to the planning board. He persuaded Commissioner Kelly to vote with him, and the nomination was defeated, 2 to 1. Cates insists he did not oppose Peoples because he is black. In fact, Cates says he proposed another black for the appointment—Mrs. Herdia Weary, a laundry operator who "does not belong to any controversial organization . . . We suggested this to the Mayor . . . and we also suggested to the Mayor that he have his maid at City Hall, Allyne Evans, verify the outstanding qualities of Herdia Weary."

Cates was absurdly serious; he said he once offered to drive Mrs. Evans to a bus stop nearer her home than the one she normally used near City Hall. En route, they passed near Mrs. Weary's laundry. "We mentioned that we knew Herdia, and Allyne said she always took her cleaning and laundry there because she got such good service. She could have told that to the Mayor."

Russell Davis moved to Jackson 26 years ago as a youth of 22, assigned to the old Jackson Air Base as a fighter pilot instructor during World War II. After the war, he stayed on to marry a Jackson girl, to open an insurance agency and, eventually, to run for the State Legislature. Just under 6 feet tall, 200 pounds, pink-cheeked with straight, prematurely white hair, Davis spent nine years in the Legislature before he decided to run for Mayor. His lack of a drawl—and his refusal to affect one—betrays his Yankee background (he was born in Maryland), a political liability. But as a legislator, Davis piled up an impressive record stressing urban needs—education, recreation and, as early as 1960, legislative reapportionment.

In his campaign for Mayor in 1969, he pledged to preserve law and order, but in a considerably lower key than Nixon and Agnew did in their campaign the previous year. "We must emphasize education and intensive, specialized training for our police officers—and we must be willing to pay for it," Davis said.

More remarkable, he pledged publicly "to work with the responsible Negro leadership of this community. We must recognize them and deal with them . . . It's time for the people in *all* sections of Jackson to participate in public affairs and work together to make Jackson a better place in which to live."

After the shootings, Davis immediately recognized that failure to institute a carefully prepared riot-control plan may have contributed to the deaths at Jackson State.

He weathered Cate's criticism of his decision to appoint a lawyers' committee to investigate the city's role in the shootings—a decision which made Davis politically vulnerable because of the two blacks he named to the committee at the insistence of the N.A.A.C.P.

Less than a month after the Hinds County Grand Jury's scathing denunciation, Davis countered by filing suit demanding the grand jury report be expunged.

Considered by many to be politically dead only halfway through his term, Davis has gone on the offensive and already is planning to seek re-election in 1973.

"I'll tell you what I tell the people at Millsaps College or at the Hollandale Rotary

Club." Davis said, puffing on a picayune cigarette in his spacious, elegantly furnished office. "There has got to be a determination on the part of the people, black and white, to get along, for whatever motive. Wherever we're going, we're going to get there together. I ask them, 'If you don't agree, what's the alternative?' I haven't had any takers on that. Mine is the first administration to put blacks in appointive city policymaking jobs. I tried to get Dr. Peoples on the planning board . . . We had a school board appointment that came up later and I appointed a black over Mr. Cates's objection."

The Jackson State tragedy convinced Davis to rid himself of his police chief, W. D. Rayfield, who had a reputation for being a lax administrator and who, inexplicably, never even got to the campus during the confrontations. In September, he replaced Rayfield with Lavell Tullos, a 20-year veteran of the force whom Davis says "is not a polished man, but he caters to fair play and justice."

Tullos instituted a code of conduct for officers which demands respectful treatment of all persons regardless of "race, color, status in life or ethnic background." His 100-page civil-disturbance operation plan "is written to conform with the most modern, up-to-date methods of crowd control," Davis says—including a prohibition against the kind of barrage that riddled Alexander Hall.

But even Davis must draw the line to remain politically alive. Asked if he had taken any action against the policemen who had lied to him about not having fired their weapons at Jackson State, Davis thought for a long time. "Punish those men?" he replied. "I don't even know who they are. But if I did—no. The position I'm in, I couldn't go that far."

Before the shootings, the Jackson Chamber of Commerce had contracted with the Mississippi Research and Development Center to help develop a comprehensive growth and improvement plan for Jackson. "But Jackson State certainly put an urgency on the situation," says Edmund Brunini, a lawyer and president of the Chamber. "The importance of the time element was certainly a factor," he said. "Our determination to take forthright action—in housing, parks and recreation, in education—was accentuated. We didn't want this to be just another report to make and then put on the shelf."

Even the town's most ardent segregationists—the Hederman brothers who publish Jackson's newspapers and without whose participation very little ever happens in Mississippi's official circles—agreed to invite blacks to participate in development-planning sessions. Black lawyer Fred Banks, who was a member of Mayor Davis's controversial investigating committee, was invited to join the parks and recreation planning group—the one that eventually recommended reopening of long-closed public swimming pools and construction of 10 new ones.

"If the Hedermans did that," mused a long-time Jacksonian, "then you can bet there's some change going on."

There is change in Jackson. By objective, liberal standards, it isn't much. Says Fred Banks: "They're still trying to see how much they can hold onto rather than what we can do now for everybody." "You can believe nothing can come of it," says lawyer Rubin Anderson, the other black who served on the Davis committee, referring to the Chamber of Commerce proposals. And people like Degecha X and Constance Slaughter won't even squeeze out a word of praise for the likes of Mayor Davis or a Morris Spivey. "Spivey's not a hero," says Degecha. "He's a human being. If you don't show conscience toward a fellow human being—black, yellow, white or red—you're an animal." "I don't have to commend Spivey or Davis," says Miss Slaughter. "They were doing what they should do."

But it is not entirely fair to judge change in Jackson, Miss., by a standard set by other people in other places. A John Lindsay does not risk his political career in New York by denouncing injustice, nor does a young lawyer in Philadelphia or Chicago risk his future by condemning a grand jury report that amounts to little more than a tissue of lies. It does not speak well for Jackson, Miss., that men take such risks for saying and doing so little; but that does not diminish the courage required to take those risks.

And what of the black students? When a circular was published calling on Jackson State students to march en masse to City Hall to protest Cates's proposal to move the college, fewer than 10 finally went. And the student who organized the march wasn't even from Jackson State but from nearby Tougaloo College. But the inescapable question is, simply: What should the students be doing? Would it help them or the cause of equality and injustice to provoke daily confrontations?

"I've had a chance to compete with white people on their own terms—intellectually," says John Peoples, his wounded eyes hardening perceptibly. "In the Marines, I had a white platoon that I ran. I was the only black and I did O.K. The question is whether you say to students, 'Look, you can do it if you're really willing to compete and not be afraid.' I don't hate white people. But I'm not afraid of 'em, either.

"Or do you tell students there's no hope. 'Don't break your back 'cause you're not gonna make it anyway.' People who talk like that just want power. They want people to do what they tell 'em. But where are they leading us? We can't win a fight with guns. We're in a fight and we're gonna win it—but not with guns."

ACTION—THE NEW NATIONAL VOLUNTEER AGENCY

Mr. HRUSKA. Mr. President, with great pleasure I endorse and support President Nixon's reorganization plan submitted to this body today, to consolidate several voluntary service agencies of the Federal Government into a national volunteer agency. The new agency will be named "Action."

The President's reorganization plan will implement the proposal he made when he addressed the University of Nebraska student body at Lincoln 2 months ago.

At that time, Mr. Nixon issued an appeal for the generations to work together harmoniously and with dedication toward a single goal of a better America. As he pointed out, the compassion and commitment of our younger adults, combined with the discipline and experience of somewhat older ones, can accomplish the objectives all of us seek for our country.

We need not be reminded that the opportunities for meaningful volunteer service are greater today than ever before in our history. On all sides of us we see examples of pressing needs—needs which cannot be met completely by government, or by industry. They will be met ultimately only by a unified society mobilizing all of its powers for the accomplishment of essential changes.

The heart of such an encompassing effort must be, as it always has been in our Nation, a voluntary effort.

Let us look at the many tasks confronting us, all of which pose direct and exciting challenges for the stout of heart and the young of spirit.

There is the requirement to continue and expand our message of progress through democracy which the Peace Corps has been carrying to foreign nations.

There is the desperate plight of our overcrowded cities.

There is the need to clean up and to regenerate our environment.

There is the need to revitalize our rural communities and our rural life so that we may look ahead to a more equitable balance between urban and rural populations.

There is the problem of equal opportunity, and of health and of many other pressing needs.

Government can do much to solve these problems. Industry has grown tremendously in social consciousness in recent years. Labor has a long and distinguished record of work in this area.

But these gigantic forces in themselves have scarcely scratched the surface of many of our problems. The problems are too vast. Because they touch and affect virtually the entire population of the Nation in one way or another, their solution will be fashioned only by the entire Nation working in concert.

Much of the inspiration and direction of such a movement can come from voluntary service.

Thus the proposal which President Nixon has placed before us is a critical one. It is his concept of how the mechanics of such a program can best mobilize, motivate, and move forward a disciplined, strongly committed national voluntary force.

Mr. President, I urge the Senate and the Congress to support this fine and forward-looking move. We owe it to our people and our Nation.

Mr. President, I ask unanimous consent that there be printed in the RECORD selected excerpts from the President's message on Action.

There being no objection, the excerpts were ordered to be printed in the RECORD, as follows:

EXCERPTS FROM PRESIDENT NIXON'S MESSAGE ON "ACTION"

COMPOSITION

Under the reorganization plan Action would administer the functions of the following programs:

Volunteers in Service to America: VISTA volunteers work in domestic poverty areas to help the poor break the poverty cycle.

Auxiliary and Special Volunteer Programs in the Office of Economic Opportunity: At present the National Student Volunteer Program is administered under this authority. This program stimulates student voluntary action programs which deal with the problems of the poor.

Foster Grandparents: This program provides opportunities for the elderly poor to assist needy children.

Retired Senior Volunteer Program: RSVP provides opportunities for retired persons to perform voluntary services in their communities.

Service Corps of Retired Executives: SCORE provides opportunities for retired businessmen to assist in the development of small businesses.

Active Corps of Executives: ACE provides opportunities for working businessmen to assist in the development of small businesses.

* * * * *

GOALS

Although reorganization is only a step, it is the essential first step toward the goal of a system of volunteer service which uses to the fullest advantages the power of all the American people to serve the purposes of the American nation.

In pursuing this goal, the new agency would, first, expand the testing and development of innovations in voluntary actions. Health services, housing, the environment, educational development, manpower, and community planning are just a few of the areas in which we would act to accomplish more through voluntary service, and I intend to ask for additional funds and additional authority for Action to explore new approaches to these and other problems.

Second, there are many Americans who want to contribute to our national life through voluntary citizen service, but who cannot serve full time. Their contributions must not be wasted. Volunteers in full-time service would work with part time volunteers and the new agency would develop and provide opportunities for more people to give part time service.

Third, Action would bring together in one place programs which appeal predominantly to younger Americans with those that appeal to older Americans and would work to bring the energy, the innovative spirit, the experience, and the skills of each to bear on specific problems. The generations in America share America's problems—they must share in the search for solutions so that we all may share in the benefits of our solutions.

Fourth, Action would develop programs for combining foreign service with domestic service to accommodate volunteers interested in such an opportunity. I believe that young people in particular would be interested in the chance for this experience and would greatly benefit from it. I know there would be great value, for example, in permitting those who have served the needs of the poor abroad to turn their skills and experience to helping the poor at home and vice versa.

* * * * *

Fifth, at the present time valuable professional skills offered in voluntary service are too frequently limited by narrow categorical programs when their broader application is urgently needed. For example, the contributions of businessmen made through SCORE and ACE are provided only through the Small Business Administration. We know that the skills of business can be used in many areas where they are not used presently. Action would open new channels for service and would permit a more extensive utilization of business and other vocational and professional abilities.

Finally, by centralizing administrative functions of the volunteer services, the new agency would provide a more effective system of recruitment, training, and placement of full time volunteers than the present circumstances permit. It would provide a single source of information and assistance for those who seek to volunteer full time service. And it would permit more effective management of services than is currently possible in the administration of volunteer programs as well as the more efficient use of resources.

* * * * *

In line with this effort to build on what we have learned, Action would function with particular concern for these basic principles:

It would encourage local initiative, and would support local programs to solve local problems.

Where appropriate the new agency would assign volunteers to assist, and work under the technical supervision of other Federal agencies, State and local agencies or organizations, and private sponsors.

The services of local part-time volunteers would be sought and supported in the effort to accomplish specific jobs. They would be assisted, when necessary, by full-time volunteers.

Universities and colleges, State, city and private organizations must be engaged in the effort to broaden opportunities for volunteer service and under the new agency they would be assisted in these efforts.

Finally, to meet the increasing need for skilled volunteers Action would give increased emphasis to recruiting and applying the skills of trained craftsmen and professional workers.

CONCLUSION

There are those today, as there always will be, who find infinite fault with life in this Nation and who conveniently forget that they share responsibility for the quality of life we lead. But our needs are too great for this attitude to be accepted. America belongs to all of its people. We are all responsible for the direction this Nation will take in the century ahead, for the quality of life we will lead and our children will lead. We are all responsible, whether we choose to be or not, for the survival and the success of the American experience and the American dream.

So there is little room for the luxury of making complaints without making commitments.

America must enlist the ideals, the energy, the experience, and the skills of its people on a larger scale than it ever has in the past. We must insure that these efforts be used to maximum advantage. We must insure that the desire to serve be linked with the opportunity to serve. We must match the vision of youth with the wisdom of experience. We must apply the understanding gained from foreign service to domestic needs, and we must extend what we learn in domestic service to other nations. And in all these endeavors, I believe, we can bring the power seen from afar to focus clearly on the problems and the promise of our time.

RETIREMENT OF ROSS G. STAPP AS SUPERINTENDENT OF WYOMING HIGHWAY DEPARTMENT

Mr. McGEE. Mr. President, I invite the attention of the Senate to the retirement of Ross G. Stapp as superintendent of the Wyoming Highway Department effective March 15, 1971. Mr. Stapp has been superintendent of the department since July 1965, and came to that distinguished position from the ranks of the department. He was first employed by the State highway department in 1927, and since that time he has served in various capacities. His career reflects step-by-step promotions and advancements throughout the many years in which he has served.

During his years of service with the State highway department, the Wyoming Department has been recognized as one of the most efficient and progressive ones throughout the entire country. The fine network of highways—both State and Federal—which we enjoy today are due in no small part to his service and leadership to the department.

In addition to his official duties with the State highway department, Ross has been most active in various professional associations involving the engineering community. Among other official posts which he has held are: President of the American Association of State Highway Officials, president of the Western Association of State Highway Officials, president of the Cheyenne Engineers Club, and president of the Wyoming Engineering Society. In these capacities Mr. Stapp has contributed greatly to his chosen profession and has brought great credit and distinction to the State of Wyoming and the offices which he has held.

Besides these professional activities, he has been deeply concerned over the years with the status of public employees generally and has been most active in the formation and administration of the Wyoming State Employees Association and the Wyoming Highway Department Employees Association. He has been most active and helpful in the implementation of the Wyoming retirement system, having served as chairman of the retirement board for some 8 years.

In leaving the post as superintendent, Mr. Stapp leaves a most impressive record which I am certain will serve as a challenge to those who will follow him in this capacity. Those of us who have worked very closely with him will certainly miss his advice and counsel, and I wanted to take this opportunity to express my best wishes to him upon his retirement.

TRIBUTES TO WHITNEY YOUNG

Mr. KENNEDY. Mr. President, I ask unanimous consent to have printed in the RECORD two very excellent presentations that express the value and nobility of the work performed by the late Whitney Young.

I submit an article from the Washington Star of March 21, by Sterling Tucker—"He Viewed and Related to Washington as a Special City," and an article from Life magazine of March 26, 1971, by Andrew Young entitled "Whitney Young: Working From the Middle."

There being no objection, the items were ordered to be printed in the RECORD, as follows:

[From the Washington Star, Mar. 21, 1971]

HE VIEWED AND RELATED TO WASHINGTON AS A SPECIAL CITY

(By Sterling Tucker)

On Thursday, Mar. 12, 1971, I was rushing from a special meeting of the City Council to a luncheon at the Army and Navy Club when I was intercepted by my Washington Urban League Office. They informed me of the death of Whitney Young Jr. As I walked from the first floor of City Hall to a waiting automobile, the driver, Jerry Hackney, said to me, "Boss, you are just like a ghost, something really shook you up."

Even as I write this piece I cannot yet believe that Whitney Young is dead. He was so full of life and there was so much of it ahead for him. Somehow I still find myself expecting that maybe this is all a terrible hoax, a mixed-up negative happening. And yet I know it to be true. I was among the group who went to Lagos, Nigeria, to accompany his body home. It was a long, long journey. On the way back I had plenty of time to think and much of that time was spent in reflection on Whitney Young, as he viewed and related to Washington as a special city.

HOT NIGHT

My mind went back to the March on Washington in 1963. From the steps of the Lincoln Memorial, Whitney Young sounded

the call to America to come to its senses and set its black brothers free. I had watched how he related to that crowd and they to him, and the spark of oneness, unity and purpose that his words seemed to generate. Perhaps not many people remember what he or anyone else said, for the movement and the spirit of that march have been enshrined in the famous, "I Have a Dream" speech of Dr. Martin Luther King Jr. Yet I know that the impact of that event was only possible because of the leadership of each of the so-called "Big 10," particularly the quiet, persistent, unifying voice of Whitney in the difficult days leading up to that March.

About a month after the march, Washington was on the brink of burning. It was a hot night in August in a church where I had brought together leaders of government, religion, business, civil rights education and just average people. We were brainstorming to figure a way out of the tension and pending chaos. I asked Whitney Young to come and speak briefly before we go home?" Whitney Young's response was to provide manpower to lend technical support. It was his opinion that poor people, like everyone else, have a right, even a responsibility, to let their government know that people need food and jobs, to let their government know that there's trouble in the land.

Whitney Young believed in poor people and they believed in him. I thought about this more last Tuesday as the funeral motorcade left the Riverside Church in New York City moving through Harlem to LaGuardia Field, where family and friends would accompany the body of our leader to its final resting place in a black cemetery in Lexington, Kentucky.

Lining the streets of Harlem were thousands of youngsters and oldsters—there to pay their final respects to one whom they knew as a giant among giants; a man among men.

There were victory signs, Black Power and "power to the people" salutes, and bowed heads and hands over hearts. There were children with signs scrawled in their own loving way, reading; "Public School 129 will miss you Whitney Young" and "thank you Whitney Young for what you have done for us."

Here in his death I sensed a coming together of the past, the present and the future. I felt that perhaps through his work these people had found their own identity, for as in the words of Howard Thurman: "A man has to be at home somewhere before he can be at home everywhere."

This outpouring of people took place in Harlem, but that's only because that's the route Whitney passed that day. It might well have been the Shaw, Anacostia or 14th Street areas of Washington.

Whitney Young was many people. He was the head of a large, important national organization with over 60 years of work on behalf of the poor and forgotten in this nation. An organization large in staff, commanding substantial resources and established—therefore, requiring a good deal of executive leadership from him. He was also a leader of American thought, scholar and statesman, carrying the message of Black America from the highest Councils of government to the thickly carpeted conference rooms of corporate suites, to the people in the deepest, darkest corners of the ghettos—helping each to understand the nature of the problems and the roles that each must play.

Because he carried these tremendous burdens, it was always good to see him relax, though he seldom did completely. I recall one occasion when we took our wives with us to a conference in Los Angeles and decided to take some time out to go to Disneyland. I wasn't very enthusiastic about spending a day in an amusement park and I suspect that Whitney felt very much as I did. Nevertheless, we went and I was so pleased to watch him enjoy the rides and walk the grounds. But even as we walked his conversation invariably turned to the myriad of problems which were perennial concerns. Some new idea would occur to him that he would want to try out on me. Some new approach, some new contact. His mind was always searching for something that could change the horrible plight of so many people.

WHITE ROLE

One of his greatest frustrations was that he couldn't get white America to understand, as he knew they should, the role that they had to play in solving these problems. He would often say to leaders of government and industry that, "if you expect black leadership to convince their followers that working through the system was the very best way to bring change, then the system would have to yield some victories for black people." He often said, "action not rhetoric, is what counts."

Our discussions took place in a hotel in New York or Washington or in his back yard in New Rochelle. These from dinner into the night sessions were a part of our work style because he was just too busy during the daylight hours doing what had to be done. Nights were reserved for thinking and planning.

These discussions, while yielding new directions and strategies, also had much therapeutic value for us. They sometimes served to relieve him of some of the weight of the burdens he bore. They helped me recharge my energy-producing batteries.

I suppose I was one of his favorite walls for he was constantly bouncing things off me and I always felt free to bounce them right back at him.

I also remember his great love for children. Walking one day through the Urban League Neighborhood Development Center area around New Jersey Avenue, he would stop and talk to a kid here, another there—not about anything special. He just wanted to know them. I thought about this the night his grandson was born just 10 months ago, and how proud he was just like anyone else that was a grandparent for the first time.

In 1964 I headed a voter registration drive for the National Urban League. In 17 cities, a small staff and 56,000 volunteers registered a half-million new black voters. Whitney had fathered the idea, raised the money for the project, but insisted upon remaining in the background.

I wanted to put him on a walking tour of the cities to encourage people to get out and vote. He finally consented to the tour but of only a few cities, Washington being one of them. As I think back on it now, I believe he had some resistance for two reasons; because he felt it might be regarded as showmanship and, I suspect that he wondered whether the name and the face of Whitney Young were sufficiently known to generate much interest in this tour. Had Whitney been able to open his eyes just for a while as the motorcade went through Harlem on Tuesday and if he could have peeked once more as the entourage went through Louisville and Lexington, Ky., he would have realized that the crowds had come to see him, to pay their last respects. One sign carried in the crowd by two boys would have started his mind to work again, for it read, "It took the death of a great man to get our streets cleaned."

[From Life magazine, Mar. 26, 1971]

WHITNEY YOUNG: WORKING FROM THE MIDDLE

(By Andrew J. Young)

The more that white folks trust and respect a black leader, the greater the suspicion in the black community. It was inconceivable to alienated blacks that Whitney Young could deal with the big business establishment or government without "selling out." From their bitter perspective, "if you were telling it like it is, you couldn't be tolerated long."

On the other end, most of the business world greeted Whitney Young with resentment and scorn reserved for those arrogant, uppity "niggers" who dared raise a moral challenge in a world where profits, not prophets, reign supreme. For every Henry Ford, Andrew Heiskell or Mil Batten who concerned himself with Whitney's cries for opportunity and justice, there were hundreds who contributed "tokens" to gain a little "PR" with black consumers and thousands who "couldn't care less" what happened beyond the company gate.

In trying to bring together these two factions—the black community and the white business world—Whitney Young was willing to suffer criticism from both sides. He was in the middle, a part of that segment of America which the pioneer black sociologist E. Franklin Frazier blasted in 1957 as the black bourgeoisie. Frazier saw this sector as an "escapist," conformist caricature of white America, and to some extent this was an accurate indictment. But there is a long legacy of freedom fighters who came from that middle group between "haves" and "have nots" and nonetheless bound themselves to their impoverished brethren and struggled with them to produce a new day for all. Internationally, Jomo Kenyatta, Kwame Nkrumah and Julius Nyerere of Africa, Gandhi and Nehru of India—all of these men whom we now revere as statesmen and liberators—came from this middle ground and were at some time damned as "compromisers."

The black bourgeoisie in America includes the proud black parents who "ate dirt" if necessary to raise their children out of poverty, and by arming the children with an undying faith, wisdom and education as security against the stresses of racism, prepared them to be leaders of their people. Those scrificial efforts provided the society with men like Whitney Young, Martin King and others who were able to work with passionate intensity to correct the ills of this nation, yet do so with calculated logic and tactical effectiveness. The leadership style they employed its reminiscent of that of the professional quarterback who lives under tension and violence and yet must calmly pick apart the defenses of the opposition.

Prior to 1961 when Whitney Young became its executive director, the National Urban League was basically a social welfare agency which subsisted largely on community chest funds. Whitney had the vision and ability to put this well-established and respected organization to work for meaningful reform of our society. Under his leadership the league no longer was a group that simply helped the poor to adjust to a racist and exploitative system; it organized blacks to register to vote and participate in government as a means of providing more representative and less corrupt government in all areas of urban politics.

He called for jobs from industry, a Marshall Plan for the cities and a guaranteed minimum income for all Americans. When these envisioned reforms were put together they constituted a potential revolution. Power and resources were to be shared with the powerless, and a new life-style would hopefully emerge, one which included all citizens in the blessings of this society.

As the league became more political, some of its past supporters withdrew money. Whitney broadened the funding base of the league, appealing to the business community to support, for its own enlightened self-interest, the inclusion of minorities in the mainstream of American life. Here he really found his niche. He was perfectly suited to function as interpreter of the movement in the board rooms, executive lunch and cocktail hours of America's business world. He had that special knack of being able to stick a moral stiletto into the

pompous consciousness of those far removed from the realities of city streets and never change his smile or miss a sip of his martini. It takes a special talent indeed to mobilize the fiddlers to prevent Rome's burning.

In this role Whitney proved a perfect complement to the massive emotional upheaval of the late 1960s. The people were on the march, but marching masses have a frightening rather than enlightening effect on the "upper class" unless an interpreter translates the passionate demands for justice into statistics—showing, for example, how the demonstrations linked up with the widening income gap between blacks and whites.

Along with this special mission to the business world he took every possible opportunity to relate to the mass movement. He came to Birmingham, took a leading role in the March on Washington and even marched in Mississippi when the cry of Black Power threatened to divide the movement. He worked hard to maintain his integrity with the action movement, and this demanded of him agonizing appraisal of every action, for when he moved, 100 branches would feel in their budget the reverberation of any miscalculation.

No doubt the constant agony of decision intensified and shortened Whitney's life. So, conceivably, did tension brought on by more frustration than any man in a creative minority leadership position can bear. Lately, with the cities seemingly quieting, Whitney Young saw much of the support for the Urban League's employment drives and street academies begin to drift away. It was as though black youth had been the problem of the last decade and it was now time to slip back to business as usual. Nothing could have been more frustrating for Whitney Young.

Whitney Young died at the end of an era. The 60's, with all their grandeur, charismatic leadership and great conflict, have given way to a new mood and a new movement. The "new thing" is "political" and it's local. The mass marches of Selma in '65 have led to black sheriffs, county commissioners, probate judges and justices of the peace in several black belt counties of Alabama, Georgia, South Carolina and Virginia. The emotional outbursts of violence in the cities have been channeled by maturing black leadership into a genuine—and increasingly successful—struggle for political power.

In addition to its own involvement in local politics, the Urban League's latest thrust is a goood illustration of the new directions in the movement. One of Whitney's final projects was "system changes"—to organize ghetto residents to alter permanently and positively the institutional services which affect their lives. This project involves the league in picketing, selective buying and para-political activities to give the poor a greater share of power in the community.

The 70's will continue to bring a strengthening of local politics and community organizations. We know that we must build and support leaders who can continue our drive for dignity and equality. The most militant demand of men like Whitney Young and Martin King was that America live out the true meaning of her creed. If we had listened to these giants of the '60's or even let them live to continue working and speaking, we would be closer to their dream of reaching this goal through cooperative and peaceful democratic means. We should give thanks now that they kept hope alive this long, and get on with the business of building *one* America.

CIVILIAN REACTOR PROGRAM

Mr. BAKER. Mr. President, the Washington Post of March 21 contains an article entitled "Nuclear Fusion May Hold Key to U.S. Fuel Needs," written by staff writer Thomas O'Toole. This is the second article on the subject by Mr. O'Toole that I have seen within recent days, and not long ago CTR received the editorial attention of the Post, as well.

I am delighted by this interest on the part of such an important and influential newspaper in the civilian reactor program. I have stated many times—and I intend to continue to state—that this Nation is on the brink of an energy crisis of large proportions. Although breeder research and CTR research hold out no hope for the short-term energy crisis, they are, in my judgment, the certain answer to the medium- and long-range aspects of planning for our future energy needs.

Fortunately, the United States and the Soviet Union have maintained an exemplary cooperation on CTR research, keeping each other fully informed on the latest technological developments. But the U.S. CTR and breeder programs are seriously and short-sightedly underfunded. There will come a time when I and others will be able to say that "we told you so," but it will be little comfort.

The Domestic Council of the President's Cabinet is now undertaking a review of the Nation's short- and long-term energy needs. If the review is thorough and honest—which I am certain it will be—it will be certain to reveal the staggering inadequacy of our existing national energy policies—such as they are—and the urgent need for more coordination and directed effort. Such an effort must include the adequate funding of the breeder reactor program and CTR research.

I ask unanimous consent that Mr. O'Toole's article be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

NUCLEAR FUSION MAY HOLD KEY TO U.S. FUEL NEEDS

(By Thomas O'Toole)

Oil is too expensive, gas is too scarce, and coal is too dirty. That leaves atomic power—or does it? The power of the atom is still dependent on uranium, which begets radioactive wastes and which in 30 years could be close to exhaustion all over the earth.

In the next few weeks, the Domestic Council of the White House will be grappling with the urgent and vital issue, the issue of how to meet the skyrocketing demand for electricity in the United States and preserve the environment at the same time. The Council will dwell mostly on what must be done in the next five years, but will also take on the problem of energy demand in as distant a time as the year 2000.

The big question is how to provide power at the lowest cost and least insult to the air and water. While the Domestic Council will probably make more than a few recommendations about how to achieve that goal, it will also distill its specific proposals on future power needs down to just two.

The first will be to give top priority for the near future (the next 15 years) to the Atomic Energy Commission's fast breeder reactor, a program whose goal it is to produce more nuclear fuel than it consumes. The second proposal will be to continue development of fusion power, in the expectation that electricity from thermonuclear fusion will begin to turn on our lights by the end of the century.

"The breeder reactor and the fusion reactor are not coming on like gangbusters right now," says White House energy adviser S. David Freeman, "but there's little question in my mind that the breeder will be the workhorse of the 1990s and that fusion holds the real promise for the 21st century."

Almost everybody in the United States knows that the country is suffering a power shortage, that the 340 million kilowatts of electricity the nation is able to generate today is not enough to supply our peak needs and stave off seasonal emergencies.

What people don't know is that the power shortage could get worse, that the nation will need more than 1.2 billion kilowatts of electricity 20 years from now, and 2 billion kilowatts by the year 2000. Even that's assuming there are no unanticipated leaps in population or in electrical demand in the next 30 years.

"What worries me is that demand accelerates while we preach power conservation," says the White House's Freeman. "I'm very much concerned that the growth of power in the United States will continue at a faster rate than we expect, project or can keep up with."

Keeping up with the nation's power demands has been made all the more difficult by the rising price of oil and the growing shortage of natural gas. There is also the surge of public concern about clean air, which conceivably could eliminate coal and all but the lowest-sulphur oils as future energy sources.

Conventional nuclear electricity is also under environmental fire, which is one reason why the White House will recommend turning to the fast breeder reactor as the nation's power source in the 1980s.

What is a fast breeder reactor? In essence, one that creates more atomic fuel than it burns up. In an oversimplified way, it does this by having metals like thorium absorb the escaping neutrons of a fissioning fuel like uranium. This splits the thorium atom, and the splitting creates more neutrons, which can bombard more thorium to create still more energy.

Though it still works on the principle of atomic fission, nuclear breeding has a far different engineering to it than today's conventional atomic plants. For one, breeder reactors will be cooled down by liquid sodium metal, which means the reactors won't need vast quantities of cooling water and won't have to operate under pressure.

This gives the breeder two big advantages over the water-cooled reactors in use today.

A breeder should leak almost no radioactivity, since it's not pressurized and not subject to the leaks that any pressurized plumbing has. The second advantage is that it's not using cooling water and therefore not discharging heated water into any lakes and rivers that might be alongside the power plant.

Just as important, breeder reactors will physically produce fissionable plutonium fuel as they burn, so much so that a working breeder will be able to refuel itself and a second identical reactor every seven to 10 years. This is a vital part of the breeder's importance, since most mining experts believe the United States will run out of uranium before the end of this century.

While the breeder might sound like the answer to most of our energy prayers, it's far from a perfect blessing. To begin with, the United States does not have a working breeder reactor, despite the fact that work has begun to develop one 17 years ago and $600 million has been spent on that development to date. Plans call for $103 million to be spent on the breeder in fiscal 1972, and the AEC fully expects to spend $100 million a year for the next 15 years before satisfying itself that it has a safe and efficient breeder plant.

The main reason the breeder has been so

slow to develop is its coolant, liquid sodium metal. Sodium is one of the most reactive metals known to man, igniting instantly on contact with air and water.

"We had hoped that four large breeder plants would be operating commercially by 1984," said Milton Shaw, director of the AEC's division of reactor development, "but it won't be any earlier than 1986, and the big thing that's slowing us up is development of the pumps, the valves and the heat exchangers that must handle the liquid sodium."

Shaw nonetheless thinks that a breeder milestone will be reached in the next year, through the award of a contract to either Westinghouse Electric Corp. or General Electric Co. to build a 500,000-kilowatt "demonstration" plant somewhere in the Northeast or in the Pacific Northwest. The only thing holding it up is the price that private industry will have to pay for the $500 million plant since the AEC has been authorized to provide only $50 million worth of federal support.

"If it takes 10 green lights to get going," Shaw says, "we've got nine of them on and glowing. I fully expect to resolve this problem within a year."

NEARING THE ULTIMATE?

Even as Shaw sets about resolving that problem, scientists at seven U.S. laboratories are laboring to tame and use the same power of thermonuclear fusion that's unleashed in the explosion of a hydrogen bomb.

Fusion power is as close to an ultimate means of making electricity as anything under the sun, but it is also proving to be the most elusive method of making power that's ever been researched. Scientists began work on fusion in 1952, two years before work was begun on the fast breeder. If anything, practical fusion power lags 15 years behind practical breeder power.

The United States has spent $440 million on fusion power research so far and plans to spend another $28 million this year. If talk in federal scientific circles is any guideline, that figure will rise to more than $30 million next year.

What is fusion? Almost the opposite of fission, where heavy elements like uranium are split up into lighter ones by neutron bombardment. Fusion works by combining light elements like deuterium and tritium (both isotopes of hydrogen) into heavier ones, releasing a terrific amount of energy when they do.

Scientists have long known that the way to bring about a fusion reaction is to heat a light gas to such a high temperature (30 million degrees and more) that it forms a plasma, which is an electrified form of the same gas. The problem is to hold the plasma in its electrified state long enough for fusion to occur.

For years, scientists were unable to contain these multimillion-degree plasmas for any useful length of time, even after they learned to keep the plasmas bottled up with some of the strongest magnetic fields ever created by man. The problem was that plasmas behaved like unstable and super-hot fluids, always finding ways to slosh out of the bottle.

"We started asking ourselves whether there was some unknown law of nature that said we couldn't do this," said Dr. Robert Hirsch, deputy director of the AEC's controlled thermononuclear fusion program. "All our experience was telling us that the plasmas were more clever than the people working with them."

A BREAKTHROUGH

Dogged determination paid off, and about five years ago scientists began to see results in the fusion program. They discovered they could hold the plasmas for longer periods of time by purifying the plasmas and by streamlining the magnetic fields that contained the plasmas. They found that making the magnetic fields weaker in the center and stronger at the edge created a kind of magnetic "well," in which the plasmas tended collect.

By the end of 1970, "classical" plasma containment had been carried off in the Soviet Union, Great Britain and six different institutions in the United States—Los Alamos Scientific Laboratory, Oak Ridge National Laboratory, Lawrence Radiation Laboratory, the University of Texas, Gulf General Atomic Corp. and Princeton University.

Nobody has yet achieved a pure fusion reaction, but to hear the most ardent fusion enthusiasts tell it there are no more major barriers left to stop it. A milestone of sorts was reached less than two weeks ago, when scientists at Los Alamos successfully cranked up the largest device yet built to achieve fusion, a $12 million machine called the Scyllac.

In the next two years, similar machines are scheduled to start working at Lawrence Radiation Laboratory, MIT and Oak Ridge, to test out different methods of fusion. Containing plasmas as hot as 50 million degrees is still the problem, but most fusion enthusiasts think it's within reach.

One, two, three or even four working fusion containers does not mean the arrival of fusion power. That must wait at least 20 years, for the time when a fusion reactor can be built to produce commercial electricity from fusion.

"The problem of recovering useful power after attaining the required plasma confinement time is a completely new and perhaps separate problem," said Dr. Harold Forsen of the University of Wisconsin last week. "The problems of handling neutrons, breeding tritium gas in flowing liquid metals, the transfer of enormous heats, radiation damage to materials and safety . . . there is a vast number of special problems that need to be explored."

Nearly everybody in the power business says that the problems should be explored, if only because fusion holds out the promise of abundant and relatively clean power.

BECAUSE IT IS POSSIBLE, IS IT NECESSARY?

Mr. McINTYRE. Mr. President, in his book, "The Technological Society," the French writer, Jacques Ellul, gave his view of the dominating force of our age when he said:

Everything which is technique is necessarily used as soon as it is available, without distinction of good or evil. This is the principal law of our age.

There are some men who believe that such a law is not inevitable and that technical possibility must be incorporated with human and ethical judgments in making decisions about proceeding from technical possibility to societywide application.

The Senator from Wisconsin (Mr. NELSON) has been one of Congress' leading proponents of technology assessment and the need for greater application of human considerations in the decisionmaking processes surrounding the application of new technology. In a debate last December over continued Federal funding of the supersonic transport in the absence of any answers to the serious questions on environmental impact of the SST, Senator NELSON observed:

The environmental issues are going to come to us one at a time. We cannot tackle them all at once, though I wish we could. This one (SST) has come to us involving the first major specific confrontation in the Congress over the environmental concerns, over the environmental implications of technological development and a test of whether or not we are prepared to say "No" to the utilization of technology simply because it works. This is what we have always done in the past, and as a consequence of our indiscriminate use of technology, all in the name of progress, we have polluted every major watershed east of the Mississippi.

Later in the SST debate, Senator NELSON expounded more eloquently on the issue of the need for technology assessment before the technology is applied. William Hines, a top reporter for the Chicago Sun-Times, picked up on the Senator from Wisconsin's December 17, 1970, floor speech in a column he wrote for the Universal Science News, Inc. In his column, Hines concluded that—

Nelson was talking basically about technology assessment, which is only a specialized type of common sense applied at a high level. Just as the average man is expected to contemplate the probable consequences of his acts in everyday life, so decisionmakers should attempt to evaluate the consequences of technological advance.

Mr. President, I ask unanimous consent that the article be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

BURDEN OF PROOF SHOULD BE ON INNOVATORS

(By William Hines)

WASHINGTON.—More often than not, a specious technological argument is won on the assertion that "you can't stop progress". Only occasionally will a prudent man pause to ask, "Why not?"

This is what Sen. Gaylord Nelson (D-Wis.) did the other day in an unusually passionate and eloquent speech on the Senate floor. Nelson rose specifically to speak against the supersonic transport plane, but his message had far broader application.

Nelson's theme was a simple one: He came back to the words "not proven" time and again as he reviewed the sorry history of galloping technology and what it has done and is doing to the world.

He spoke of the late Rachel Carson and her warnings about the "Silent Spring" that would break some year after all the songbirds had died from the effects of careless overuse of DDT. Rachel Carson in her lifetime was the object of many people's scorn, a "little old lady in tennis shoes," a muddleheaded do-gooder, an alarmist. She made her arguments, Nelson recalled, and they were brushed aside as "not proven".

He recounted how scientists warned that Lake Erie would be overwhelmed by the load of industrial, agricultural and municipal wastes being poured into it in an ever-increasing stream after World War II, and how their warnings were shrugged off as "not proven".

He told of the pollution of Lake Superior, "an incredibly delicate, pure lake," a mining company that has been dumping huge amounts of taconite (iron ore) tailings into it with permission of the State of Minnesota and the Army Corps of Engineers, despite warnings that were waved aside as "not proven".

"The case is now being proved," Nelson said. "Various trace elements in the tailings were found and there is great concern that it may start pollution blossoming in the lake."

Even the ocean is not immune to the effects of man's depredations, Nelson pointed

out. He mentioned the alarming discovery of excessive amounts of mercury in the flesh of tuna, an open-ocean species, and cited widespread scientific opinion that the ocean is doomed in the foreseeable future.

Nelson was talking basically about technology assessment, which is only a specialized type of common sense applied at a high level. Just as the average man is expected to contemplate the probable consequences of his acts in everyday life, so decision-makers should attempt to evaluate the consequences of technological advance.

In going about this sometimes difficult reasoning process, Nelson seemed to be saying, decision-makers shouldn't wave away reasoned arguments against a technological development simply because they are "not proven". The burden of proof, he was saying, should be on those pushing the technological development, whether it be a supersonic transport airplane, a new form of insecticide, or a new way of extracting ore.

The detergent mess we find ourselves in is an excellent case in point. When the day of the modern washday miracle dawned, a few people foresaw the consequences of release of large quantities of "hard" phosphate detergents into the environment. Tap water with a frothy, beer-like head was the eventual result, and when this situation became intolerable a new type of detergent had to be developed—one whose magic ingredient would break down in nature.

Makers of the second-generation detergents were persuaded—in large measure by the government—to move away from phosphates and toward a different cleansing agent called nitrilotriacetic acid (NTA). Again, warnings were heard but went unheeded because they are "not proven". A multi-million-dollar industry was created to fill the raw-material needs of the NTA-based detergent manufacturers.

And then, the day after Nelson made his "not proven" speech to the Senate, the government ordered manufacture of all NTA-based detergents discontinued. The action was taken on the basis of experiments with animals which indicated a danger to embryos from NTA.

One of the government spokesmen called NTA "an even greater environmental hazard" than the phosphates it was brought in to replace. Phosphates, at least, have never been shown in laboratory experiments to cause birth defects or abortion.

Ironically, the officials who announced the NTA ban said that a link between NTA and possible fatal damage in humans is "not proven".

MEDICAL CARE, NOT INSURANCE

Mr. KENNEDY. Mr. President, a column published last week in the New York Times, written by Mr. Tom Wicker, states in a perceptive way what is emerging as one of the most important issues in the debate over national health insurance—whether the program should be administered by the Federal Government, as in medicare, or whether it should be administered by the private insurance companies.

I fully agree with Mr. Wicker's view that the private insurance companies have "no inalienable right . . . to make money in the medical care business." The real questions are whether we are going to develop a program capable of bringing high-quality health care to every American, and whether and to what extent the private insurance carriers should participate in reaching that goal.

I believe that Mr. Wicker's column will be of interest to all of us in the Senate concerned with the health crisis. I ask unanimous consent that it be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

[From the New York Times, Mar. 18, 1971]

IN THE NATION—MEDICAL CARE, NOT INSURANCE

(By Tom Wicker)

The private health insurance industry has testified to a Senate subcommittee that a national system of medical care should be administered through private health-insurance companies—naturally.

This comes at a crucial moment. President Nixon is proposing a medical care plan, another is being offered by Senator Edward Kennedy and backed by a hundred Congressional sponsors, and the redoubtable Wilbur Mills of the Ways and Means Committee not only is devising his own health scheme but also is scheduling it for consideration ahead of Mr. Nixon's revenue-sharing program. That kind of activity almost certainly will result at last in a national medical care program, which is long overdue.

Why should such a program, which in any form will require a considerable investment of taxpayers' money, necessarily be administered through private insurance companies? Many of them have dubious records of service, not all offer policies that even come close to paying most medical expenses, and the number and variety of them would require in any case a considerable degree of Federal regulation.

Any way you look at it, the imposition of private profit-making companies on a national medical plan would impose another layer of costs. Industry representatives conceded to the subcommittee that the overhead costs of private health insurance policies amount to about half the premiums charged to individual subscribers. If taxpayers are to support the national health, must they also support the profits of private companies?

On the other hand, presumably, no one would object to the profits, nor would anyone mind private company administration, if indeed a higher level of medical care and a more efficient and effective administration of the program would result.

It is hard to argue, for instance, that instead of private companies there should be a new Federal medical care bureaucracy, with its associated state and regional bureaucracies—although the one clear analogy is to the Social Security Administration, which even the private insurance industry considers to have done an excellent job in administering Old Age and Survivors Insurance.

It is true, moreover, that building private insurance firms into a national medical care structure would place a screen between the Government and the doctors—so that the latter would have what many of them consider an essential freedom from bureaucratic regulation, and the opportunity to continue in an essentially private practice of medicine.

This leads to a third possibility—that both from a taxpayer's and a doctor's point of view, sensible study of the problem may suggest that there is a lot to be said for those who can afford it to continue paying for their own medical care through private insurance, much as they do now, as long as that does not interfere with or diminish the ability of the less affluent to get adequate medical care when they need it.

All of these things may be true. What is not true is that private insurance has some inherent place in the medical care system—that the doctrines of free enterprise or private medicine or the survival of the fittest create an inalienable right for private companies to make money in the medical care business.

In fact, once the idea of a national medical-care system is accepted, only two principles ought really to be considered immutable. The first is that everyone should get the medical care he needs, when he needs it, for as long as he needs it, unhampered by his lack of ability to pay (either medical care charges or insurance premiums); and the other is that the quality of that medical care should be as high as possible.

These ideals can hardly be reached overnight, and perhaps never fully can be. Achieving medical care for all, for instance, probably would make it harder to maintain high standards of medical care. But Congress and the Administration ought to keep in mind that their task is to devise the most effective national medical care plan—not a private insurance scheme. The latter will be useful only to the extent that it helps realize the former.

THE NEW YORK TIMES AND LAOS, OR, HOW "TIMES" CHANGE

Mr. BENNETT. Mr. President, it is always reassuring to find that the problems faced by the United States are viewed similarly by our Government and by our Nation's major sources of wisdom and enlightenment. And so it was with much satisfaction that I recently reread two editorials from one such source, The New York Times, which demonstrates a keen, sympathetic understanding of the situation in Laos.

My only criticism of the editorials is that they perhaps are a bit too hawkish in their advocacy of sending American fighting troops into Laos. The Nixon administration has so far resisted pressures to take such action.

However, all things considered, I belive the editorials offer some food for thought. Try this tidbit, for example:

The spreading military crisis in Laos compels the American Government to take a new look at this tiny but strategically important kingdom and to review its whole policy with a view toward more forceful action to keep it out of Communist hands.

The Times notes:

The crisis has been simmering ever since the Geneva Conference of 1954, and said the latest development has "put pro-Communist forces" on the Mekong River, where they can menace Thailand, and is opening a new route for Communist invasion of embattled South Vietnam.

A "grim alternative" to a political solution, the Times continues, "is massive military aid from the outside, which might trigger a larger conflict." While noting the President is loath to embark on such a policy, the editorial argues that "SEATO and ANZUS, which are pledged to joint protection of the area, should also have their say."

The second New York Times editorial notes again that—

The United States faces a hazardous decision on whether to support Laotian anti-Communist forces at this time by sending American troops to Laos.

Apparently, opting for such a move the editorial states it "might even help induce the neutralist and Pathet Lao rebels to reach a compromise settlement."

Mr. President, if these editorials appear a bit out of character, perhaps it is because they appeared on May 12 and 15, 1962, respectively—during another era, when a man named John F. Kennedy was in the White House.

I ask unanimous consent that they be printed in the RECORD.

There being no objection, the editorials were ordered to be printed in the RECORD, as follows:

[From The New York Times, May 12, 1962]

NEW LOOK AT LAOS

The spreading military crisis in Laos compels the American Government to take a new look at this tiny but strategically important kingdom and to review its whole policy with a view toward more forceful action to keep it out of Communist hands.

The crisis has been simmering ever since the Geneva conference of 1954 which was supposed to settle everything but merely led to continued intermittent fighting in Laos and one military coup after another. It reached its present stage when the combined neutralist and Communist forces, aided by Soviet Russia, Communist China and Communist North Vietnam, broke the latest year-old cease-fire agreement and launched a new offensive that has overrun several strongholds of the pro-Western Government and placed all northwest Laos under Communist control.

This development has put pro-Communist forces on the Mekong River, where they can menace Thailand, and is opening a new route for Communist invasion of embattled South Vietnam.

President Kennedy declared three months ago that if the cease-fire were broken we would be faced with "most serious decisions." But the Government clings to its present policy, agreed upon between President Kennedy and Premier Khrushchev at Vienna, which calls for a neutral and independent Laos under a coalition regime formed of pro-Western, neutralist and Communist factions. It has joined Britain in calling on Soviet Russia to stop the Communist offensive and has induced Prince Souvanna Phouma, whom it backs as a neutralist Premier, to call for a Communist withdrawal.

It has little hope that the Communists will really surrender what they hold. It does hope for restoration of the cease-fire and resumption of the dragging coalition negotiations between the three princes heading the three rival factions who view it all as a family affair to be settled in Laotian fashion. The American policy is based on Washington's belief that the Laotians are uninterested in political or ideological conflicts and, in contrast to the Vietnamese, will not fight. But to back up that policy and force the pro-Western leaders into the coalition with the Communists, even to surrender the army and police, which they refuse, American authorities have tended to under-cut the pro-Western Government even to accuse it of provocation, until this policy begins to resemble that which lost China.

On the other hand, the only grim alternative is massive military aid from the outside, which might trigger a larger conflict. President Kennedy is rightly loath to embark on such a policy, but SEATO and ANZUS, which are pledged to joint protection of the area, should also have their say.

[From The New York Times, May 15, 1962]

THE LAOTIAN DRAMA QUICKENS

The decision of neutralist Prince Souvanna Phouma to return from Paris to Laos somewhat increases the possibility that rival Laotian factions may yet agree on a coalition government. Having tasted military defeat last week in northwest Laos, the Vientiane anti-Communist leaders, Prince Boun Oum and General Phoumi Nosavan, may now be more inclined to let Prince Souvanna control the key Defense and Interior Ministries in the proposed coalition.

A bigger question will be the attitude of the third Prince in the Laotian political triangle, Prince Souphanouvong. After the victory of his Pathet Lao troops, stiffened by Vietnamese Communist cadres, he may be encouraged to raise his price for joining the coalition. His viewpoint will be a significant reflecton of the way his backers—the U.S.S.R., North Vietnam and Communist China—look at the situation in Laos at this time.

Prince Souvanna's leverage over Souphanouvong, his half-brother, does not appear to be great. The latter has ignored the neutralist Prince's plea that Pathet Lao forces pull back to lines they held before their recent assault on Nam Tha. Moreover, the leader of the neutralist army in Laos, General Kong Le, who has been voyaging to Peiping and Moscow, has been making statements indicating he is more inclined to echo Prince Souphanouvong's views than Prince Souvanna's.

The United States faces a hazardous decision on whether to support Laotian anti-Communist forces at this time by sending American troops to Laos. Conceivably such a move would not eliminate the possibility of a coalition. It might even help induce the neutralist and Pathet Lao rebels to reach a compromise settlement. Their reaction, of course, would depend on Hanoi, Peiping and Moscow.

However, the Communist decision might well be instead to break off all consideration of a comprise and make a hot war in Laos to which Vietnamese and (less likely) Chinese Communist troops would move in large numbers. The risks of American intervention are all the greater because the ineffectiveness displayed by the Vientiane Government and Army. We might find that we have no indigenous political and military forces of any consequence to support.

Prince Souvanna's return home and the resumption of political negotiations may bring a pause on the military fronts in Laos that will give Washington and the American people time to consider and prepare for the dangerous decisions that may yet have to be made.

Meanwhile, the Communists involved in Laos, of whatever nationality, must also realize the risks to them of the explosive situation there. Mr. Khrushchev has repeatedly said he wants a peaceful, neutral Laos; the Chinese and Vietnamese Communist regimes, in negotiations at Geneva, have also committed themselves to this view. Laos is a testing ground of the possibility of dealing with the Communist bloc without war. Failure by Mr. Khrushchev and his allies to honor the modus vivendi worked out at Geneva risks a fantastically dangerous military confrontation in this far-off corner of Southeast Asia.

HOOSIER MASTER FARMER CITATIONS

Mr. BAYH. Mr. President, I was greatly pleased to note recently that six Indiana men have been honored by being designated as 1971 Master Farmers. These coveted awards, which are based on "two-thirds for competence as a farmer and one-third for involvement in community affairs," were conferred by Prairie Farmer magazine in Indianapolis on February 26.

It is my understanding that more than 100 Indiana farmers have received similar recognition in the last 45 years, 85 of them between 1925 and 1935, and 30 since 1968 when the program was reinstituted after having been discontinued for some three decades. An unusual aspect of the six named this year from Indiana is that two of them are brothers, Erland and William Rothenberger, who are partners in a large, modern nationally recognized corn, hog, and cattle farm. The other winners include Lloyd Catton, an outstanding dairy farmer, Morris Hoar, who has a large swine and beef herder operation, James Shilling, who produces grain on 240 acres, and Richard Ward, another large producer of corn, hogs, and beef cattle.

Mr. President, as a tribute to these fine Indiana farmers I ask unanimous consent that a brief description of their accomplishments, which appeared in the Prairie Farmer for March 6, 1971, be printed at this point in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

[From Prairie Farmer, March 6, 1971]

SIX HOOSIERS RECEIVE MASTER FARMER CITATIONS

It's doubtful whether any American farm has hosted as many farm groups and foreign visitors over the past 20 years as the William R. and Erland G. Rothenberger farm near Frankfort. These brother-partners are recognized nationally as innovators in the production of corn, hogs, and cattle.

Both are graduates of Purdue University—Bill in animal science and Erland in biochemistry. Both began farming with their father after graduation. Farm account records kept in cooperation with Purdue since 1928 show their swine enterprise has changed almost completely every 10 years.

They own and operate 577 acres, all but 20 producing continuous corn. They raised and marketed 2591 hogs in 1969, but may increase this with their new slotted-floor gestation building. They also buy and feed out 400 beef calves each year.

The Rothenbergers have been among the first to adopt such innovations as slotted-floor confinement for hogs and wheel track planting for corn. Extremely competent in the field of animal nutrition, they were aware of the vitamin E-selenium deficiency of swine rations before most university nutritionists were.

They grow 450 acres of corn for grain each year and about 65 acres for corn silage. Their best-ever corn yield, in 1965, was 127 bu. The 1970 crop yielded about 100 bu.

Their corn production system involves 30-in. rows with 6-row equipment, harvest populations of 20,000 to 21,000, and 80% single-cross hybrids. They test soils on half the farm each year and have run occasional leaf analyses in July.

With the completion of their new swine gestation building, the swine enterprise will be confined except for gilts left on pasture for conditioning.

One finishing floor is located at Erland's farmstead and the rest of the swine facilities are at Bill's. The feed and grain handling facilities are at Bill's but the machine storage and cattle feedlot are at Erland's.

Most of their calves have come from the west and southwest in recent years, but they have fed some from the south. They have 3 large concrete stave silos—one filled with silage, the other 2 with high-moisture corn.

During the harvest season Bill operates the combine and Erland operates the grain dryer. They have only one full-time employee.

Bill's qualities of leadership were recognized by Purdue University when he was awarded an honorary degree of doctor of agriculture. He has been president or board member of such groups as the National Pork Producers Council, National Livestock and Meat Board, Institute of Animal Agriculture and Top Farmers of America.

A past president of the Indiana Farm Management Association, Bill has appeared on numerous Farm Science Days panels at Purdue. He is a bank director, has organized and taught adult farm classes, and served on 2 community study committees.

Erland is also a past president of the Indiana Farm Management Association and is an 8-year member of the state hog cholera eradication committee. He too appears on numerous state and national farm management panels. He was chairman of the local library board and served on the high school parent advisory council.

Both Rothenbergers have served on nearly every board and committee in their churches—Bill in the First Christian church and Erland in St. Matthew Methodist church.

The William Rothenbergers have 2 children: Ron, 29; and Carol (Mrs. Larry) McKee, 28. The Erland Rothenbergers also have 2 children: Steve, 24; and Karen (Mrs. Ronald) Rudolph, 22.

Lloyd G. Clayton of LaPorte keeps a Holstein dairy herd that consistently ranks high in a strong dairying county. During a recent 12-month rolling herd average, his milking string of 40 to 45 cows produced 18,500 pounds of milk and 703 pounds of butterfat.

After high school Clayton took a winter short course in dairy production at Purdue. He then farmed with his father. When his father retired in 1945, Clayton bought the farm.

Clayton chose stanchions instead of a milking parlor and loafing barn when he remodeled the milking facilities in 1951. He still milks in stanchions, using a vacuum transfer system instead of a conventional pipeline.

One of the first to drylot his milking herd, Clayton feeds green-chopped alfalfa when its available and corn silage and hay the rest of the year. He began feeding baking soda to his cows a few years ago, about 4 pounds per ton of dry feed. He's convinced it has raised his butterfat test about two-tenths of a point.

Most of the bull calves are fed out as steers on the farm. Clayton does keep a bull for heifers and problem breeders, but selects bulls from several artifical breeding studs for selected matings.

In recent years Clayton has transformed a 10-acre swampy brushy area into excellent pasture of reed canarygrass and birdsfoot trefoil. He starts 25 to 30 heifers on it each spring and removes them as they near freshening.

Clayton is a past president of his county co-op, secretary-treasurer of the county Pure Milk Association, is now president of his county Holstein breeders association, and has held all offices in the county DHIA and township Farm Bureau.

In the Salem Chapel United Methodist church he has been chairman of the board of trustees and official board, is a church lay leader, teaches a junior boys class, and is a member of the choir.

The Claytons have 3 children: David, 23; Nancy, 20; and Vane, 11.

Morris E. Hoar of Salem, with the help of his wife and a full-time employee, operates 589 acres, feeds out 525 beef calves, and has embarked on a swine program which will eventually market 2000 hogs a year.

A Purdue winter short course graduate, Hoar began farming with his father in 1943. He later bought a farm of his own. When his father died in 1958, he took over management of that farm.

Hoar keeps a swine herd of 120 sows, farrowing 30 sows per group 8 times a year. He weans 9 pigs per litter regularly.

Confinement buildings haven't solved all Hoar's management problems, but they are a big improvement over former facilities. He formerly handled 80 sows on 2 farms in pigloos, feeding out 1000 to 1200 each year on pasture.

The cattle feeding enterprise is spread over 3 small feedlots at separate farmsteads. The farm has a history of stalk rot so Hoar uses calves to glean the fields. He also grazes them on odd size pastures, providing 5 lb. grain per day.

Hoar prefers to feed heifers and gets most of his calves from Louisville weighing around 500 lb. He keeps them about 10 months and sells them around 1000 lb.

It was no accident that the hybrids Hoar planted in 1970 were largely resistant to the southern corn leaf blight. He uses single and 3-way crosses, harvest populations of about 18,500, and 28-in. row widths.

Hoar is currently on the county council, serves on the board of the Jackson County REMC, is on the county extension board, is a Farm Bureau member of 24 years, and belongs to his county's pork and cattlemen's associations. He has also been a board member of his county co-op and has been a soil and water conservation district supervisor.

In the Mt. Tabor Christian church he has been a trustee, deacon, and Sunday school teacher.

The Hoars have 5 children: Donald, 27; Connie (Mrs. Tom) Garriot, 25; Marcia Ann, 21; Robert, 19; and David Lee, 8.

James W. Shilling of Knox owns 676 acres, rents 459, and custom-farms 240. It's a cash grain operation—he keeps no livestock.

Shilling began farming with his father in 1957. By 1960 he was making most of the management decisions, then his father retired in 1963.

An active participant in Purdue's recent Top Operator classes, Shilling has run his own corn production system thru the computers 3 times. He keeps his own records and furnishes landlords with itemized accounts of seed and fertilizer used and yields at year's end.

Farming soils which are generally sandy with limited yield potential, Shilling averaged 111 bu. in 1969 on 884 acres. He has developed a series of minimum-tillage corn-planting systems, but new uses a unit which plants twelve 30-in. rows.

If possible, he likes to do all his chisel plowing in the fall. But if there isn't that much time, he disks instead. Very conscious of wind erosion potential, he attempts to leave soils covered with crop residues over winter.

Shilling hauls all his grain to either of 2 nearby commercial elevators and has no drying or storage facilities on his own farm. He installed a hopper bottom on a semi-trailer for the 1970 corn crop and can unload in 3 minutes. A 2-way radio system includes units in his home, 2 trucks, car, and either the combine or tractor.

In past years Shilling has been Starke county's Outstanding Young Farmer and its outstanding Soil and Water Conservation District cooperator.

He is county Farm Bureau president, on the county co-op board, was chairman of Indiana Farm Bureau's resolutions committee, is on the county extension council, is a past president of his county's Purdue Ag Alumni organization, and serves on the county health board.

In the United Methodist Church he has been a trustee, an usher, and Sunday school teacher.

The Shillings have 2 children: Bradford, 9; and Brenda, 6.

Richard H. Ward of Crawfordsville is well known in Hoosier agriculture. He was state president of the Purdue Agricultural Alumni Association from 1965 to 1967. He was host to the Indiana Farm Management Association during its 1959 tour and is past president of that association. He's also a premier producer of corn, hogs, and beef cattle.

It takes considerable labor to grow 560 acres of corn, produce 2400 hogs a year, and feed out 300 steers. That's why Ward keeps 2 full-time employees.

There has been an interesting sequence of improvements in grain handling and drying equipment on Ward's farm. He used an oil-fired bin dryer for ear-corn at first. Then 2 or 3 years later he changed to a field sheller and batch-bin dryer. He bought his first cornhead for a combine in 1956 and a gas-fired batch dryer in 1957, switched to dryeration in 1962, and bought a continuous-flow dryer in 1969.

Ward won the Montgomery county corn production contest with a 160-bu. average in 1966. He has 30-in. rows, uses 6-row equipment, harvests populations of about 23,500, and uses mostly single-cross hybrids.

Ward has never applied for a patent, but he designed and built an electrically-heated pig pad in 1961. He uses it in both farrowing houses and sells these units to other swine producers. Designed to fit in the creep area along a farrowing crate, the metal shell contains concrete and insulation beside resistance heating units.

Ward has served on the county council, the county extension board, and county FFA board, and is past president of the county historical society.

He also represents agriculture on an Indiana legislative committee studying local government.

In the Linden-Kirkpatrick United Methodist church, Ward has been Sunday school superintendent, trustee, and youth director.

The Wards have 2 children: Nancy, 15; and Rick, 12.

TERMINATION OF HELIUM CONSERVATION PROGRAM ILL ADVISED

Mr. PEARSON. Mr. President, the Department of the Interior has taken steps to terminate the helium conservation program. I believe that this action is extremly ill advised as helium is a scarce and dwindling resource. That helium which is not extracted from natural gas is lost forever. Future projections indicate that there will be great demands for helium. Helium has great potential for reducing pollution associated with electrical power generation and transmission.

While it may be that the present helium conservation program needs to be revised, its total abolition represents a gamble with the future which hardly seems justified.

Mr. President, I ask unanimous consent that the resolution adopted by the Kansas Legislature expressing opposition to this decision by the Interior Department be printed in the RECORD at this point.

I also ask unanimous consent that a copy of the statement I made before the Senate Committee on Interior and Insular Affairs on this subject be printed in the RECORD.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

HOUSE RESOLUTION No. 1038

A Resolution memorializing the United States Secretary of the Interior to reconsider action in canceling contracts for helium

Whereas, Mr. Fred J. Russell, Undersecretary of the United States Department of the Interior, has taken action purporting to cancel all contracts with helium conservation contractors effective March 27 because of reduction in demand for helium; and

Whereas, A study conducted by the Oil and Gas Committee of the Chamber of Commerce, Liberal, Kansas, indicates there is a need for continuing the present program; electrical power generation and transmission for medicine, oceanography, welding, pollution-free nuclear and magnetohydrodynamic some of these needs of private industry being and communications; and

appears to be temporary as was the case in 1927, 1934 and 1944; and

Whereas, Reduction in demand for helium

Whereas, Exhaustion of helium-bearing gas reserves is expected to occur by 1995 based upon present estimates and no significant discovery has been made in recent years; and

Whereas, Termination of contracts at this time will seriously adversely affect the economy of western Kansas. Four helium plants would be closed in Kansas, at Liberal, Ulysses, Bushton and Otis; eighty employees would lose their jobs in Liberal alone and the state would lose income, sales and property taxes: Now, therefore,

Be it resolved by the House of Representatives of the State of Kansas: That we hereby request the Honorable Rogers C. B. Morton, secretary of the Interior to reconsider the recent action of the Undersecretary of Interior, purporting to cancel the helium contract, and that action be taken to institute a thorough study of the matter, and that the effective date of the cancellation of the contracts be extended until a full report with recommendations thereon can be made to the new secretary concerning the helium conservation program.

Be it further resolved: That the Chief Clerk of the House be directed to send enrolled copies of the resolution to The Honorable Richard M. Nixon, President of the United States; The Honorable Robert Docking, Governor of Kansas; members of the Kansas congressional delegation; George Schultz, Director of Management and Budget, White House, Washington, D.C.; The Honorable Rogers C. B. Morton, Secretary of Interior, Washington, D.C.; U.S. Chamber of Commerce, Washington, D.C., and the Kansas State Chamber of Commerce, Topeka, Kansas.

STATEMENT OF SENATOR JAMES B. PEARSON BEFORE THE SENATE INTERIOR COMMITTEE, MARCH 23, 1971

Mr. Chairman, I am happy to have the opportunity to submit this statement to the Committee expressing my concern over the recent Department of Interior decision to cancel four helium purchase contracts, terminating the Federal Helium Conservation Program which has been in effect since the passage of the Helium Act Amendments of 1960.

I am concerned that this step may have been taken more in regard to the short-term financial pressures which face the Nation than for the long-range needs of the country, particularly when viewed against a backdrop of dwindling natural resources and the rising demand for energy.

This decision raises a very real question regarding national policy in that it could very well place in great jeopardy an important but dwindling national resource, one upon which virtually all of the free world relies.

Mr. Chairman, it has become manifestly clear that the nations who will be the industrial leaders of the future will be those which have combined a maximum high energy demand with a minimal amount of environmental pollution.

One path to clean, yet high energy production lies in the development of superconducting power generation and transmission. Superconductivity is a phenomenon which occurs at temperatures near absolute zero, when certain metals are able to pass an electric current without resistance. There are at least two benefits derived from this occurrence. Because there is no resultant heat loss, smaller and more powerful equipment than is currently in use can be developed. Secondly, pollution is kept at a minimum.

A superconducting cable is currently under development which can compress the equivalent of the load of 20 conventional cables into a single, 24-inch pipe coded to superconductive temperatures. This single cable, safely buried underground, could meet the present power requirements of New York City.

Mr. Chairman, helium is the only known element which can make superconductivity possible. And helium is also a prerequisite for other facets of electrical production.

Future generations of atomic generators might well use helium, rather than water, as a coolant. In West Germany, where fresh water outlets are not as abundant as they are here, electric power development has been moving towards helium-cooled plants. A closed cycle plant is now under development which uses helium as a coolant for a high temperature reactor as well as the drive gas to spin the turbine motors.

Also under development are Magnetic Hydrodynamic (MHD) generators, which are reputed to have a 60% efficiency as compared to the 40% of conventional systems. MHD power creates electricity by passing an ionized gas across a powerful magnetic field. Helium is necessary to this system to operate the superconducting magnets and to provide the carrier gas for the generating process.

Again, development of MHD generators is considerably more advanced in Europe than in our own country. And in Great Britain, West Germany and other countries, the development of these power systems is almost totally reliant on U.S. helium.

In the past, we have always assumed that we had the know-how and the resources to meet any problem. However, geologists tell us that helium is a limited resource and that the bulk of our current reserves—some 30 billion cubic feet now in storage—will be depleted before 1990.

We have been further informed—and I quote the Washington Post of February 14, 1971—that the Soviet Union is preparing a new five-year plan which calls for the "development of research into nuclear physics, solid-state and semi-conductor physics, quantum electronics, low temperature physics, mastering the use of fast neutron reactors in industry, and solution of thermonuclear problems."

The Russians have given the world notice that among their new goals is the use of helium in the development of low temperature power generation equipment which will be capable of producing 1,030–1,070 billion kilowatt hours of electricity per year (compared to 740 billion in 1970). I submit that if we allow our supplies of helium to diminish, as the Department of Interior desires, we will find ourselves seriously shorthanded when we are forced to compete with Russian developments. Further, by failing to continue conservation of helium, we will allow more than six billion cubic feet per year to be wasted in the atmosphere as a result of our failure to extract this valuable resource from the natural gas burned as fuel. It seems to me that this waste can only be regarded as profligate when we know that the time is rapidly approaching when it will be in short supply.

It has been public policy for many years to stockpile commodities beneficial to the security and economy of the United States and to our allies. When the Helium Conservation Program was first proposed in 1958, a cabinet level committee in the Eisenhower Administration made it clear that it was "convinced that present and foreseeable uses of helium are highly essential to the welfare of the United States . . . and a conservation program . . . would be justified. . . . Failure to extract the recoverable helium . . . would be a gross wastage of a very limited and unique natural resource, which could have the effect of reducing or slowing down the rapid advance of scientific, technical, and military developments in this country."

I believe that the comments of the Helium Policy Working Group just quoted are equally prophetic today. I would only add that the added peaceful use of helium for the development of electric power adds an urgent appeal relative to domestic welfare which was unforeseen in 1958.

I might also point out that in the past, we have abandoned stockpilings with disastrous consequences. One of the more recent instances took place in 1962, when under the theory that synthetic chemical compounds would meet the government's need for antimalarial drugs, we sold four-fifths of our quinine stockpile.

The purchaser turned out to be an international group which already controlled much of the world supply. Once in possession of the U.S. stockpile, the group was able to increase the price by 333 percent.

Shortly after the sale, the government found that certain strains of malaria in Southeast Asia were resistant to synthetic drugs. But because no government-owned stockpiles existed, we were forced to pay $7.00 an ounce for the same quinine we had sold for 21 cents an ounce.

It may well be true that there are serious imperfections in the financing of the program we had in effect, but surely these imperfections should not challenge the necessity of helium storage. I call to your attention a statement made by Dr. Preston E. Cloud, Jr., who said in the March 20, 1970 issue of Science Magazine, that helium conservation "should be run like a conservation program, not a business." The article further quoted Dr. Cloud as urging the expansion of helium conservation, by stating, "To say that something will come along (to insure an adequate helium supply) is an act of faith that shouldn't be used as a basis for public policy."

Mr. Chairman, I am fearful that the consequences of cancelling helium conservation is at best a gamble. Too much is at stake, including the mutual benefit of the United States and its allies. I urge this committee to give serious review to the Helium Conservation Program and the development of a viable means to see that future supplies of this unique resource are provided.

ANNUAL SOCIAL SECURITY REVIEW OF PRIVATE HEALTH INSURANCE: 1969

Mr. KENNEDY. Mr. President, the February issue of the Social Security Bulletin contains the agency's excellent annual review of private health insurance in the United States. Because the article is an important source of statistics and other information on the health insurance industry, and because the role of the private carriers is a major issue in the current debate over national health insurance, I believe that the article should be widely available to all. I ask unanimous consent that it be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

PRIVATE HEALTH INSURANCE IN 1969: A REVIEW

(By Marjorie Smith Mueller*)

An estimated 157 million persons in the United States or a little more than three-fourths of the civilian population had some protection in 1969 against the costs of hospital care and surgical care through private health insurance organizations. For two-thirds of the civilian population, private health insurance met at least part of the cost of physicians' in-hospital visits.

Out-of-hospital services were provided through private health insurance to smaller numbers: 125 million or 62 percent of the civilian population were covered for X-ray and laboratory services, 43 percent for physicians' office and home visits, 45 percent for

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prescription drugs, and 4 percent for dental care. Private health insurance helped meet the cost of private-duty nursing care for 45 percent of the population, 50 percent were covered at least in part for visiting-nurse service, and 14 percent had coverage for nursing-home care. Insurance coverage for physicians' office and home visits, dental care, and drugs is frequently subject to deductible and coinsurance payments. Consequently, the full cost of these health care services is almost never met through insurance.

Most persons aged 65 and over have health insurance coverage through the Federal Government's program of health insurance for the aged—Medicare. Complementary coverage for health expenses not covered in full or at all by Medicare was held by almost 10 million or half of all aged persons for hospital care and by nearly 9.5 million for surgical services.

This article is mainly concerned with the number and percentage of the population under age 65 who have prepayment or insurance coverage of health costs through private health insurance oragnizations—Blue Cross-Blue Shield, insurance companies, community and employer-employee-union group-practice and individual plans, private group medical clinics, and dental service corporations.

Office of Research and Statistics (ORS) estimates of the net number and proportion of the population having health insurance coverage for hospital care, surgical services, and other health care services are somewhat lower than those estimated by the Health Insurance Association of America (HIAA), an association of insurance companies. Both estimates, however, show a continued growth during 1969 in the number and percentage of the population covered.

Consumer expenditures for private health insurance in 1969 totaled $14.7 billion in premiums and subscription charges, about 14 percent more than in 1968. Benefit expenditures by private health insurance organizations reached $13.1 billion, close to 16 percent higher than in 1968. The organizations paid out 89 percent of premium income in benefits, 15 percent went for operating expense, and there was a net underwriting loss of 4 percent of premiums.

POPULATION COVERAGE

Estimates of the net number (of different persons) and the percentage of the population with some health insurance coverage of the various main types of health care are summarized in table 1. The Office of Research and Statistics based its 1968 estimates of net enrollment for hospital and surgical coverage on household-interview surveys conducted by the National Center for Health Statistics (NCHS) of the Public Health Service in 1967 and 1968. In 1969 these household-interview surveys were not made, and the estimates for that year are based on projections of the 1968 figures, derived from percentage changes from 1968 to 1969 shown in HIAA estimates of net coverage reported.

TABLE 1.—ESTIMATES OF THE NET NUMBER OF DIFFERENT PERSONS UNDER PRIVATE HEALTH INSURANCE PLANS AND PERCENT OF POPULATION COVERED, BY AGE AND SPECIFIED TYPE OF CARE, AS OF DEC. 31, 1969

Type of service	All ages		Under age 65		Aged 65 and over	
	Number (in thousands)	Percent of civilian population	Number (in thousands)	Percent of civilian population	Number (in thousands)	Percent of civilian population
Hospital care	157,305	78.3	147,408	81.3	9,897	50.4
Physicians' services:						
Surgical services	152,314	75.8	142,902	78.8	9,412	47.9
In-hospital visits	133,914	66.6	126,190	69.6	7,724	39.3
X-ray and laboratory examinations	125,002	62.2	117,472	64.8	7,530	38.3
Office and home visits	86,317	43.0	77,916	43.0	8,401	42.8
Dental care	8,510	4.2	8,385	4.6	125	.6
Prescribed drugs (out-of-hospital)	89,805	44.7	86,880	47.9	2,925	14.9
Private-duty nursing	91,211	45.4	88,024	48.5	3,187	16.2
Visiting-nurse service	100,343	49.9	96,885	53.4	3,458	17.6
Nursing-home care	28,044	14.0	23,962	13.2	4,082	20.8
HIAA estimates:						
Hospital care	175,221	87.2	164,383	90.7	10,838	55.2
Surgical services	162,144	80.7	153,304	84.6	8,840	45.0

The estimates for other health care services are based on the gross total of enrollments reported by health insurance organizations, with estimated deductions for multiple or duplicatory coverages. These deductions are believed to be reasonable in the light of the extent of multiple coverages for hospital care and surgical services.

It should be noted that—although sizable proportions of the population are covered for physicians' office and home visits, prescribed drugs, private-duty nursing, and nursing-home care—actual protection for these services, as measured by the proportion of consumer expenditures for health services met by private insurance, varies widely from substantial to very little. In fact, private health insurance meets only 5 percent of consumer expenditures for all health services other than those for hospital care and physicians' services. The bulk of such coverage is under supplementary major medical and comprehensive insurance policies. Significant gains were noted, however, in the scope of coverage under group-practice plans—for both community and employer-employee-union organizations.

Tables 2–4 show the number of persons enrolled by the different types of health insurance organizations for each of 10 services, together with estimates of the net numbers of different persons with some coverage of each of these services.

The gross enrollment total, for persons of all ages for hospital care, reported by or estimated for all organizations, was 202.4 million (table 2). According to projections of the 1968 household-interview figures, 157.3 million different persons were covered for hospital care in 1969. The gross enrollment equaled 129 percent of the net number of different persons covered—an indication that 45 million, or approximately 22 percent of the 202.4 million gross enrollment, represented multiple or duplicatory coverage.

TABLE 2.—ENROLLMENT UNDER PRIVATE HEALTH INSURANCE PLANS FOR PERSONS OF ALL AGES AND ESTIMATES OF THE NET NUMBER OF DIFFERENT PERSONS COVERED, BY TYPE OF PLAN AND SPECIFIED TYPE OF CARE, AS OF DEC. 31, 1969

Type of plan	Hospital care	Physicians' services			Dental care	Prescribed drugs (out-of-hospital)	Private-duty nursing	Visiting-nurse service	Nursing-home care
		Surgical services	In-hospital visits	X-ray and laboratory examinations / Office and home visits					
Total gross enrollment	202,403	187,005	149,311	133,330 / 90,297	8,510	94,178	95,644	105,222	28,564
Blue Cross-Blue Shield	73,211	66,595	61,879	36,779 / 17,111	141	18,563	19,614	28,392	19,053
Blue Cross	70,620	3,629	3,448	1,769 / 1,088					
Blue Shield	2,591	62,966	58,431	35,010 / 16,023					
Insurance companies	121,562	110,460	78,282	86,671 / 64,636	4,811	71,395	70,230	70,320	7,461
Group policies	80,093	81,363	65,490	79,326 / 57,127	4,753	65,426	64,291	64,291	3,749
Individual policies	41,469	29,097	12,792	7,345 / 7,509	58	5,969	6,029	6,029	3,712
Other plans	7,630	9,950	9,150	9,850 / 8,550	3,558	4,220	5,710	6,510	2,050
Community	2,600	4,500	4,500	4,400 / 4,400	400	1,700	3,400	4,100	250
Employer-employee-union	5,000	5,300	4,500	5,300 / 4,000	1,400	2,500	2,300	2,400	1,800
Private group clinic	30	150	150	150 / 150	45	20	10	10	
Dental service corporation					1,713				
Net number of different persons covered, as estimated by—									
Office of Research and Statistics	157,305	152,314	133,914	125,002 / 86,317	8,510	89,805	91,211	100,343	28,044
Percent of civilian population [1]	78.3	75.8	66.6	62.2 / 43.0	4.2	44.7	45.4	49.9	14.0
HIAA	175,221	162,144	134,930						
Percent of civilian population [1]	87.2	80.7	67.1						
Gross enrollment as percent of net number of different persons covered, as estimated by—									
Office of Research and Statistics	128.7	122.8	111.5	106.7 / 104.6	100.0	104.9	104.9	104.9	101.9
HIAA	115.5	115.3	110.7						

[1] Based on Bureau of the Census estimate of 200,965,000 as of Jan. 1, 1970.

Multiple coverage occurs chiefly in three ways: when husband and wife are both employed and both cover self, spouse, and dependents under the insurance plan at the work place; when a person with group coverage under a health insurance plan purchases an individual insurance policy to supplement his group coverage; when a person not eligible for group coverage holds two or more insurance company individual policies (sometimes a second policy taken to supplement one that provides only meager benefits). A considerable share of the individual policies of insurance companies supplement other coverage, it is believed.

Blue Cross plans had 64.9 million persons under age 65 enrolled for hospital care at the end of 1969 (table 3). Blue Shield plans not cooperating or affiliated with Blue Cross plans reported an enrollment of 2.3 million for that type of care. Insurance companies accounted for 78.2 million persons covered for hospital care under group policies and for 37.6 million policy owners and dependents under individual policies. (The number of policy holder enrollments is greater than the net number of different persons with coverage because of multiple coverage.) Private health insurance organizations other than Blue Cross-Blue Shield plans or insurance companies covered an estimated 7.2 million persons for hospital care.

TABLE 3.—ENROLLMENT UNDER PRIVATE HEALTH INSURANCE PLANS FOR PERSONS UNDER AGE 65 AND ESTIMATES OF THE NET NUMBER OF DIFFERENT PERSONS COVERED, BY TYPE OF PLAN AND SPECIFIED TYPE OF CARE, AS OF DEC. 31, 1969

[In thousands]

Type of plan	Hospital care	Physicians' services: Surgical services	Physicians' services: In-hospital visits	Physicians' services: X-ray and laboratory examinations	Physicians' services: Office and home visits	Dental care	Prescribed drugs (out-of-hospital)	Private-duty nursing	Visiting-nurse service	Nursing-home care
Total gross enrollment	190,251	176,716	140,804	125,695	81,812	8,385	91,224	92,425	101,729	24,441
Blue Cross-Blue Shield	67,251	60,499	56,414	32,885	12,687	141	17,600	18,415	26,969	15,235
Blue Cross	64,908	3,412	3,242	1,560	1,005					
Blue Shield	2,343	57,087	53,172	31,325	11,682					
Insurance companies	115,815	106,767	75,750	83,480	60,977	4,735	69,665	68,600	68,600	7,361
Group policies	78,194	79,571	63,864	76,386	53,893	4,677	63,836	62,721	62,721	3,649
Individual policies	37,621	27,196	11,886	7,094	7,084	58	5,829	5,879	5,879	3,712
Other plans	7,185	9,450	8,640	9,330	8,148	3,509	3,959	5,410	6,160	1,845
Community	2,470	4,310	4,310	4,210	4,210	397	1,620	3,280	3,910	185
Employer-employee-union	4,690	5,000	4,190	4,980	3,798	1,390	2,320	2,120	2,240	1,660
Private group clinic	25	140	140	140	140	43	19	10	10	
Dental service corporation						1,679				
Net number of different persons covered, as estimated by—										
Office of Research and Statistics	147,408	142,902	126,190	117,472	77,916	8,385	86,880	88,024	96,885	23,962
Percent of civilian population[1]	81.3	78.8	69.6	64.8	43.0	4.6	47.9	48.5	53.4	13.2
HIAA	164,383	153,304	127,227							
Percent of civilian population[1]	90.7	84.6	70.2							
Gross enrollment as percent of net number of different persons covered, as estimated by—										
Office of Research and Statistics	129.1	123.6	111.6	107.0	105.0	100.0	105.0	105.0	105.0	102.0
HIAA	115.9	115.3	110.7							

[1] Based on the Bureau of the Census estimate of 181,317,000 as of Jan. 1, 1970.

TABLE 4.—ENROLLMENT UNDER PRIVATE HEALTH INSURANCE PLANS FOR PERSONS AGED 65 AND OVER AND ESTIMATES OF THE NET NUMBER OF DIFFERENT PERSONS COVERED, BY TYPE OF PLAN AND SPECIFIED TYPE OF CARE, DEC. 31, 1969

[In thousands]

Type of plan	Hospital care	Physicians' services: Surgical services	Physicians' services: In-hospital visits	Physicians' services: X-ray and laboratory examinations	Physicians' services: Office and home visits	Dental care	Prescribed drugs (out-of-hospital)	Private-duty nursing	Visiting-nurse service	Nursing-home care
Total gross enrollment	12,152	10,289	8,507	7,605	8,485	125	2,954	3,219	3,493	4,123
Blue Cross-Blue Shield	5,960	6,096	5,465	3,894	4,424		963	1,199	1,423	3,818
Blue Cross	5,712	217	266	209	83					
Blue Shield	248	5,879	5,259	3,685	4,341					
Insurance companies	5,747	3,693	2,532	3,191	3,659	76	1,730	1,720	1,720	100
Group policies	1,899	1,792	1,626	2,940	3,234	76	1,590	1,570	1,570	100
Individual policies	3,848	1,901	906	251	425		140	150	150	
Other plans	445	500	510	520	402	49	261	300	350	205
Community	130	190	190	190	190	3	80	120	190	65
Employer-employee-union	310	300	310	320	202	10	180	180	160	140
Private group clinic	5	10	10	10	10	2	1			
Dental service corporation						34				
Net number of different persons covered, as estimated by—										
Office of Research and Statistics	9,897	9,412	7,724	7,530	8,401	125	2,925	3,187	3,458	4,082
Percent of civilian population[1]	50.4	47.9	39.3	38.3	42.8	.6	14.9	16.2	17.6	20.8
HIAA	10,838	8,840	7,703							
Percent of civilian population[1]	55.2	45.0	39.2							
Gross enrollment as percent of net number of different persons covered, as estimated by—										
Office of Research and Statistics	122.8	109.3	110.1	101.0	101.0	100.0	101.0	101.0	101.0	101.0
HIAA	112.1	116.4	110.4							

[1] Based on Bureau of the Census estimate of 19,648,000 as of Jan. 1, 1970

Sources of the Data

Blue Cross and Blue Shield data are supplied by the Blue Cross Association and the National Association of Blue Shield Plans from data reported by the individual plans. The data for insurance companies were compiled by the Health Insurance Association of America from its annual survey of the number of persons covered by insurance companies under group and individual policies. The data for private insurance plans other than those of the Blue Cross and Blue Shield associations and those of insurance companies are Office of Research and Statistics estimates based on its annual survey of these plans. A full survey of all known plans of this type was made in 1969 to obtain 1968 data.[1] Estimates for the year 1969 have been made on the basis of changes from 1968 to 1969 in a small number of the larger plans.

The net number of persons under age 65 with hospital coverage at the end of 1969 is estimated as 147 million or 81 percent of the civilian population. The estimate is a projection of the 1968 household-interview survey figure by the NCHS.[2] In projecting the

[1] See Louis S. Reed, *Health Insurance Plans Other Than Blue Cross or Blue Shield Plans or Insurance Companies, 1969 Survey* (Research Report No. 35), Social Security Administration, Office of Research and Statistics, 1970.

[2] "Hospital and Surgical Insurance Coverage Among Persons Under 65 Years of Age in the United States, 1968," *Monthly Vital Statistics Report*, National Center for Health Statistics, Public Health Service, Feb. 2, 1970.

1969 estimates, the 1968 NCHS figures for hospital and for surgical coverage were increased by the percentage changes reported by HIAA in its estimates of net coverage—3 percent and 4 percent, respectively. The 1969 estimates for the net number of persons over age 65 were arrived at in a similar manner: the relative increase shown by HIAA was 7 percent for hospital services, and it was 4 percent for surgical benefits.

Estimates of the net number of persons with coverage of other services have been made by assuming the ratios of gross enrollment to the number covered. For those under age 65, these ratios were 112 percent for in-hospital visits of physicians; 107 percent for X-ray and laboratory examinations; 105 percent for physicians' office and home visits, drugs, private-duty nursing, and visiting-nurse service; and 102 percent for nursing-home care (it is assumed that there is as yet no duplicatory coverage of dental care). The ratios are believed to be reasonable since the extent of multiple coverage is presumably much greater for hospital care and surgical services than it is for other items of health care.

For persons aged 65 and over who are covered for services other than hospital care and surgery, the estimates of the net numbers are derived in a similar manner but with the assumption of a lower rate of multiple coverage: 110 percent for physicians' in-hospital visits and 101 percent for X-ray and laboratory services, physicians' office and home visits, private-duty nursing, visiting-nurse service, nursing-home care, and drugs. For persons of all ages, the estimates are obtained by adding the estimates for persons under age 65 and for persons aged 65 and over.

Insurance company estimates are reported as in past years. The HIAA provides estimates of net coverage of persons under and persons over age 65, for hospital, surgical, and nonsurgical medical expense coverage—basic coverage of physicians' visits in the hospital, physicians' visits in the office, home, and hospital, and out-of-hospital X-ray and/or laboratory examinations. The nonsurgical medical expense estimate is used for in-hospital medical visits.

The percentage distribution of gross total enrollment among the carriers in 1969 is shown in table 5. For persons of all ages, Blue Cross-Blue Shield plans have 36 percent of total enrollment for hospital care and insurance companies have 60 percent. For plans other than Blue Cross-Blue Shield and insurance company plans, the share of gross enrollment is 4 percent. Enrollment under group insurance policies was almost twice as large as that under individual policies.

TABLE 5.—PERCENTAGE DISTRIBUTION OF TOTAL GROSS ENROLLMENT UNDER PRIVATE HEALTH INSURANCE PLANS, BY AGE, TYPE OF PLAN, AND SPECIFIED TYPE OF CARE, DEC. 31, 1969

Age group and type of plan	Hospital care	Physicians' services: Surgical services	Physicians' services: In-hospital visits	Physicians' services: X-ray and laboratory examinations	Physicians' services: Office and home visits	Dental care	Prescribed drugs (out of hospital)	Private duty nursing	Visiting nurse service	Nursing home care
Total, all ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Blue Cross-Blue Shield	36.2	35.6	41.4	27.6	18.9	1.7	19.7	20.5	27.0	66.7
Insurance companies	60.1	59.1	52.4	65.0	71.6	56.5	75.8	73.5	66.8	26.1
Group policies	39.6	43.5	43.9	59.5	63.3	55.9	69.5	67.2	61.1	13.0
Individual policies	20.5	15.6	8.6	5.5	8.3	.7	6.3	6.3	5.7	13.0
Other plans	3.8	5.3	6.1	7.4	9.5	41.8	4.5	6.0	6.2	7.2
Under age 65, total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Blue Cross-Blue Shield	35.3	34.2	40.1	26.2	15.5	1.7	19.3	19.9	26.5	62.3
Insurance companies	60.9	60.4	53.8	66.4	74.5	56.5	76.4	74.2	67.4	30.1
Group policies	41.1	45.0	45.4	60.8	65.9	55.8	70.0	67.9	61.7	14.9
Individual policies	19.8	15.4	8.4	5.6	8.7	.7	6.4	6.4	5.8	15.2
Other plans	3.8	5.3	6.1	7.4	10.0	41.8	4.3	5.9	6.1	7.5
Aged 65 and over, total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Blue Cross-Blue Shield	49.0	59.2	64.2	51.2	52.1	----	32.6	37.2	40.7	92.6
Insurance companies	47.3	35.9	29.8	42.0	43.1	60.8	58.6	53.4	49.2	2.4
Group policies	15.6	17.4	19.1	38.7	38.1	60.8	53.8	48.8	44.9	2.4
Individual policies	31.7	18.5	10.7	3.3	5.0	----	4.7	4.7	4.3	----
Other plans	3.7	4.9	6.0	6.8	4.7	39.2	8.8	9.3	10.0	5.0

The relationship runs about the same for surgical services, with group insurance policies almost three times individual policies. For X-ray and laboratory examinations, insurance companies had 65 percent of the enrollment, with group policies almost 12 times as frequent as individual policies. Blue Cross-Blue Shield plans held 28 percent of the enrollment, and other plans had 7 percent.

Blue Cross-Blue Shield plans held only a small share of the other services, except for nursing-home care, where they accounted for 67 percent of the enrollment. The share of coverage held by insurance companies was 57 percent for dental care, 72 percent for physicians' office and home visits, 76 percent for prescription out-of-hospital drugs, 74 percent for private-duty nursing, and 67 percent for visiting-nurse service. Group insurance policies outnumbered individual policies about 11 to 1, except for dental care (almost exclusively group business) and physicians' office and home visits, with a ratio about 8 to 1. Plans other than Blue Cross-Blue Shield and insurance company plans had their greatest strength in dental care—42 percent of enrollment. They had less than 10 percent of the enrollment for all other services.

The distribution pattern was somewhat the same for persons under age 65 as for those of all ages. Among those aged 65 and over, however, there is a distinct shift: Blue Cross-Blue Shield plans accounted for a much larger share of enrollment for all types of services.

HISTORICAL DATA

The data in tables 6 and 7 give the gross enrollment of health insurance organizations and estimates of the net number of persons with some coverage of hospital care and surgical services during 1940–69. The gross enrollments are the total of enrollments for all carriers, with no deduction for duplication among insurance companies. The data on the net number of persons covered are those reported by various household surveys from time to time during the period. The 1969 data are projections of the 1968 NCHS figures, as noted earlier.

TABLE 6.—HOSPITAL BENEFITS: GROSS ENROLLMENT UNDER PRIVATE HEALTH INSURANCE PLANS FOR PERSONS OF ALL AGES AND ESTIMATES OF THE NET NUMBER OF DIFFERENT PERSONS COVERED, BY TYPE OF PLAN, 1940–69

[In thousands]

End of year	Gross enrollments: Total	Blue Cross-Blue Shield: Total	Blue Cross-Blue Shield: Blue Cross	Blue Cross-Blue Shield: Blue Shield	Insurance companies: Total	Insurance companies: Group policies	Insurance companies: Individual policies	Other plans: Total	Other plans: Community	Other plans: Employer-employee-union	Other plans: Medical Society	Other plans: Private group clinic	Net number of different persons covered, estimated by—: Household surveys[1]: Number	Household surveys[1]: Percent of civilian population	HIAA: Number[2]	HIAA: Percent of civilian population	Gross enrollment as percent of net, estimated by—: Household surveys	Gross enrollment as percent of net, estimated by—: HIAA
1940	12,022	6,072	6,012	60	3,700	2,500	1,200	2,250	140	1,560	110	440	----	----	12,312	9.3	----	97.6
1945	32,135	18,961	18,881	80	10,504	7,804	2,700	2,670	420	1,660	200	390	----	----	32,068	24.0	----	100.2
1950	81,691	37,645	37,435	210	39,601	22,305	17,296	4,445	1,445	2,280	500	220	----	----	76,639	50.7	----	106.6
1955	118,629	48,924	47,719	1,205	63,160	39,029	24,131	6,545	2,920	3,220	360	45	----	----	105,452	64.1	----	112.5
1960	148,863	57,464	55,938	1,526	85,405	55,218	30,187	5,994	1,604	4,000	340	50	----	----	130,007	72.3	----	114.5
1961	153,026	57,960	56,489	1,471	87,964	57,013	30,951	7,102	1,851	4,850	344	57	----	----	134,417	73.7	----	113.8
1962	158,629	59,618	58,133	1,485	92,074	59,153	32,921	6,937	1,830	4,703	344	60	129,800	70.0	138,890	74.9	122.2	114.2
1963	165,142	60,698	59,141	1,557	97,279	62,817	34,462	7,165	1,947	4,814	344	60	126,057	67.0	144,575	76.8	131.0	114.2

See footnotes at end of table.

TABLE 6.—HOSPITAL BENEFITS: GROSS ENROLLMENT UNDER PRIVATE HEALTH INSURANCE PLANS FOR PERSONS OF ALL AGES AND ESTIMATES OF THE NET NUMBER OF DIFFERENT PERSONS COVERED, BY TYPE OF PLAN, 1940–69—Continued

[In thousands]

End of year	Gross enrollments: Total	Blue Cross-Blue Shield: Total	Blue Cross	Blue Shield	Insurance companies: Total	Group policies	Individual policies	Other plans: Total	Community	Employer-employee-union	Medical society	Private group clinic	Net number of different persons covered, estimated by—: Household surveys [1]: Number	Household surveys [1]: Percent of civilian population	HIAA: Number [2]	HIAA: Percent of civilian population	Gross enrollment as percent of net, estimated by—: Household surveys	Gross enrollment as percent of net, estimated by—: HIAA
1964	169,632	62,429	60,478	1,951	100,363	64,506	35,857	6,840	1,859	4,785	8	188	.....	.....	148,338	77.8	.....	114.4
1965	175,122	63,662	61,651	2,012	104,476	67,104	37,372	6,984	1,954	4,971	8	51	.....	.....	153,133	79.4	.....	114.4
1966	180,482	65,638	63,408	2,230	108,211	69,570	38,641	6,633	1,964	4,618	.....	51	.....	.....	158,022	81.1	.....	114.2
1967	185,822	67,513	65,188	2,325	111,259	73,351	37,908	7,050	2,300	4,700	.....	50	146,131	74.3	162,853	82.8	127.2	114.1
1968	193,555	70,510	67,958	2,552	115,768	76,009	39,709	7,277	2,507	4,749	.....	20	152,117	76.5	169,497	85.3	127.2	114.2
1969	202,403	73,211	70,620	2,591	121,562	80,093	41,469	7,630	2,600	5,000	.....	30	[3] 157,305	78.3	175,221	87.2	128.7	115.5

[1] Number estimated by applying percentages to total civilian population. Percentages projected to end of year and rounded, except for 1967, 1968, and 1969 data.

[2] Estimate exceeds gross enrollment for early years because HIAA data include estimated enrollment of college and university health services.

[3] Estimated by applying HIAA percentage increase in net enrollment from 1968 to 1969 to the NCHS figure for 1968.

TABLE 7.—SURGICAL BENEFITS: GROSS ENROLLMENT UNDER PRIVATE HEALTH INSURANCE PLANS FOR PERSONS OF ALL AGES AND ESTIMATES OF THE NET NUMBER OF DIFFERENT PERSONS COVERED, BY TYPE OF PLAN, 1940–69

[In thousands]

End of year	Gross enrollments: Total	Blue Cross-Blue Shield: Total	Blue Cross	Blue Shield	Insurance companies: Total	Group policies	Individual policies	Other plans: Total	Community	Employer-employee-union	Medical society	Private group clinic	Net number of different persons covered, estimated by—: Household surveys [1]: Number	Household surveys [1]: Percent of civilian population	HIAA: Number [2]	HIAA: Percent of civilian population	Gross enrollment as percent of net, estimated by—: Household surveys	Gross enrollment as percent of net, estimated by—: HIAA
1940	4,790	260	.....	260	2,280	1,430	850	2,250	200	1,480	110	460	.....	.....	5,350	4.1	.....	89.5
1945	12,092	2,335	127	2,208	7,337	5,537	1,800	2,420	350	1,460	200	410	.....	.....	12,890	9.6	.....	93.8
1950	55,950	17,253	1,151	16,102	34,937	21,219	13,718	3,760	940	1,950	600	270	.....	.....	54,156	35.8	.....	100.3
1955	101,819	37,395	3,194	34,201	58,494	39,725	18,769	5,930	2,130	3,200	430	170	.....	.....	88,856	54.0	.....	114.6
1960	134,118	48,266	3,773	44,493	78,516	55,504	23,012	7,336	2,760	4,020	346	210	.....	.....	117,304	65.2	.....	114.3
1961	140,103	49,374	3,048	46,326	82,235	57,373	24,862	8,494	3,026	4,891	346	231	116,788	64.0	122,951	67.4	120.0	114.0
1962	144,441	50,876	2,814	48,062	85,278	59,787	25,491	8,287	3,003	4,695	346	243	120,528	65.0	126,900	68.4	119.8	113.8
1963	151,240	52,371	2,740	49,631	90,261	63,288	26,973	8,608	3,206	4,806	346	250	.....	.....	131,954	70.1	.....	114.6
1964	155,215	54,473	3,222	51,251	92,445	64,939	27,506	8,297	3,111	4,968	10	208	.....	.....	135,433	71.0	.....	114.6
1965	161,810	56,330	3,660	52,669	96,796	67,557	29,239	8,684	3,400	5,068	10	206	.....	.....	140,462	72.8	.....	115.2
1966	165,810	57,916	3,417	54,499	99,569	70,268	29,301	8,325	3,526	4,601	.....	198	.....	.....	144,715	74.3	.....	114.6
1967	172,050	60,433	3,416	57,017	103,037	74,318	28,719	8,580	3,900	4,500	.....	180	142,437	72.4	150,396	76.4	120.8	114.4
1968	177,647	63,279	3,464	59,815	105,616	77,415	28,201	8,752	4,132	4,476	.....	143	146,295	73.6	155,725	78.3	121.4	114.1
1969	187,005	66,595	3,629	62,966	110,460	81,363	29,097	9,950	4,500	5,300	.....	150	[3] 152,314	75.0	162,144	80.7	122.8	115.3

[1] Number estimated by applying percentages to total civilian population. Percentages projected to end of year and rounded, except for 1967, 1968, and 1969 data.

[2] Estimate exceeds gross enrollment for early years because HIAA data include estimated enrollment of college and university health services.

[3] Estimated by applying HIAA percentage increase in net enrollment from 1968 to 1969 to the NCHS figure for 1968.

Blue Cross-Blue Shield enrollment for hospital and surgical care continues to grow at about the same rate as in recent years. Insurance company enrollments show a gradually increasing growth rate, most of it in group business, although individual policies showed some increase in enrollment in 1969 after spotty or no growth during the preceding years. Among plans other than Blue Cross-Blue Shield and insurance company plans, the overall growth rate has been fairly constant. Employer-employee-union plans had the greatest increase, reflecting the impact of collective bargaining.

Although enrollment increased generally in community plans, the rate of growth slowed sharply in 1969, largely as a result of declines in enrollment in two major plans—the Community Health Association of Detroit and the Inter-County Hospital Plan, Inc., of Johnstown, Pennsylvania. The former—a community group-practice plan—lost almost 3,000 enrollees, most of them United Auto Workers (UAW) members who moved away from the center city in which the plan facilities are located and substituted other private insurance. Although other employee groups have taken the place of the UAW members in the center city, they are not in the favorable position of UAW groups who have collective bargaining agreements with their employers that give them a choice between carriers. The Inter-County Hospital Plan—a community individual-practice plan—lost 38,000 enrollees, most of them union groups, who turned to other types of health insurance plans when the Inter-County plan raised subscription rates after 2 years of adverse experience with these groups.

The difference of several points between the HIAA estimates and the other estimates of the proportion of the net population with health insurance continues to stand out very clearly. The ratio of total gross enrollments to the estimates of net enrollment by HIAA is examined as well as the ratio of gross enrollments to ORS and NCHS estimates of net coverage.

The HIAA estimates did not take duplicating coverages into account until 1947. By 1960, the Association's ratio of gross enrollment to net enrollment had leveled off at about 114 percent. The various household surveys have found a substantially larger ratio in the past few years—120–131 percent for hospital benefits and 120–123 percent for surgical care. Some of the difference between HIAA estimates and the household survey figures may result from HIAA overstatement of enrollments reported by health insurance organizations or from underreporting under the household surveys.

For persons under age 65 and for those aged 65 and over, data on enrollments and estimates of the net population covered are presented separately in tables 8 and 9. The separate data are significant because of the changing health insurance picture since the start of Medicare operations in mid-1966.

TABLE 8.—HOSPITAL BENEFITS: GROSS ENROLLMENT UNDER PRIVATE HEALTH INSURANCE PLANS AND ESTIMATES OF THE NET NUMBER OF DIFFERENT PERSONS COVERED, BY AGE AND TYPE OF PLAN, 1960–69

[In thousands]

End of year	Gross enrollment: Total	Gross enrollment: Insurance companies: Blue Cross-Blue Shield	Gross enrollment: Insurance companies: Group policies	Gross enrollment: Insurance companies: Individual policies	Gross enrollment: Other plans	Net number of different persons covered, estimated by—: Household surveys: Number	Household surveys: Percent of civilian population	HIAA: Number	HIAA: Percent of civilian population	Gross enrollment as percent of net, estimated by—: Household surveys	HIAA
Under age 65											
1960	139,855	53,070	53,718	27,487	5,580	----	----	120,772	74.1	----	115.8
1961	142,576	52,750	55,263	27,951	6,612	----	----	124,595	75.4	----	114.4
1962	146,626	54,194	56,853	29,121	6,458	120,220	72.3	128,600	76.6	122.0	114.0
1963	152,822	55,072	60,417	30,662	6,671	----	----	133,267	78.2	----	114.7
1964	157,083	56,663	62,006	32,057	6,357	----	----	(1)	(1)	----	----
1965	162,461	57,884	64,504	33,572	6,501	----	----	141,400	81.0	----	114.9
1966	170,053	60,575	67,546	35,729	6,203	----	----	148,589	84.4	----	114.4
1967	175,672	62,103	71,279	35,670	6,620	137,617	77.4	153,768	86.5	127.7	114.2
1968	182,440	65,086	74,128	36,451	6,775	142,837	79.6	159,335	88.8	127.7	114.5
1969	190,251	67,251	78,194	37,621	7,185	[2] 147,408	81.3	164,383	90.7	129.1	115.9
Aged 65 and over											
1960	9,008	4,394	1,500	2,700	414	----	----	9,235	54.8	----	97.5
1961	10,450	5,210	1,750	3,000	490	----	----	9,822	57.2	----	106.4
1962	12,003	5,424	2,300	3,800	479	9,125	54.1	10,300	59.1	131.5	116.5
1963	12,320	5,626	2,400	3,800	494	----	----	11,308	63.8	----	108.9
1964	12,538	5,766	2,500	3,800	472	----	----	(1)	(1)	----	----
1965	12,661	5,778	2,600	3,800	483	----	----	11,700	63.9	----	108.2
1966	10,439	5,073	2,024	2,912	430	----	----	9,433	50.6	----	110.7
1967	10,150	5,410	2,072	2,238	430	8,514	45.0	9,085	47.8	119.2	111.7
1968	11,115	5,424	1,931	3,258	502	[3] 9,280	48.5	10,162	52.6	119.8	109.4
1969	12,152	5,960	1,899	3,848	445	[3] 9,897	[4] 50.4	10,838	55.2	122.8	112.1

[1] Data not available.
[2] See footnote 3, table 6.
[3] Estimated on basis of percentage increase in gross enrollment from the preceding year.
[4] In the current medicare survey of the Social Security Administration, 51 percent of those enrolled for supplementary medical insurance were reported as having private hospital insurance as of Jan. 1, 1969.

TABLE 9.—SURGICAL BENEFITS: GROSS ENROLLMENT UNDER PRIVATE HEALTH INSURANCE PLANS AND ESTIMATES OF THE NET NUMBER OF DIFFERENT PERSONS COVERED, BY AGE AND TYPE OF PLAN, 1960–69

[In thousands]

End of year	Gross enrollment: Total	Gross enrollment: Insurance companies: Blue Cross-Blue Shield	Gross enrollment: Insurance companies: Group policies	Gross enrollment: Insurance companies: Individual policies	Gross enrollment: Other plans	Net number of different persons covered, estimated by—: Household surveys: Number	Household surveys: Percent of civilian population	HIAA: Number	HIAA: Percent of civilian population	Gross enrollment as percent of net, estimated by—: Household surveys	HIAA
Under age 65:											
1960	127,386	45,226	54,104	21,212	6,844	----	----	109,452	67.2	----	116.4
1961	132,209	45,649	55,673	22,962	7,925	----	----	114,645	69.3	----	115.3
1962	134,609	46,599	57,487	22,791	7,732	113,569	68.3	(1)	(1)	118.5	----
1963	139,278	46,086	60,888	24,273	8,031	----	----	122,112	71.6	----	114.1
1964	144,811	49,825	62,439	24,806	7,741	----	----	(1)	(1)	----	----
1965	150,946	51,348	64,957	26,539	8,102	----	----	130,100	74.5	----	116.0
1966	157,504	53,613	68,574	27,479	7,838	----	----	137,448	78.1	----	114.6
1967	163,643	56,020	72,583	26,965	8,075	134,061	75.4	142,828	80.3	122.9	114.6
1968	168,588	58,390	75,619	26,300	8,279	137,224	76.5	147,252	82.1	122.9	114.5
1969	176,716	60,499	79,571	26,196	9,450	[2] 142,902	78.8	153,304	84.6	123.6	115.3
Aged 65 and over:											
1960	6,732	3,040	1,400	1,800	492	----	----	7,852	46.6	----	85.7
1961	7,894	3,725	1,700	1,900	569	----	----	8,306	84.4	----	95.0
1962	9,832	4,277	2,300	2,700	555	7,792	46.2	(1)	(1)	126.2	(1)
1963	9,962	4,285	2,400	2,700	577	----	----	9,842	55.6	----	101.2
1964	10,404	4,648	2,500	2,700	556	----	----	(1)	(1)	----	(1)
1965	10,864	4,982	2,600	2,700	582	----	----	10,400	56.8	----	104.5
1966	8,307	4,304	1,694	1,822	487	----	----	7,267	39.0	----	114.3
1967	8,407	4,413	1,735	1,754	505	8,376	44.1	7,568	39.8	100.4	111.1
1968	9,059	4,889	1,796	1,901	473	[3] 9,021	46.7	8,473	43.8	100.4	106.9
1969	10,289	6,096	1,792	1,901	500	[3] 9,412	[4] 47.9	8,840	45.0	109.3	116.4

[1] Data not available.
[2] See footnote 3, table 6.
[3] See footnote 3, table 8.
[4] In the current medicare survey of the Social Security Administration, 44 percent of those enrolled for supplementary medical insurance were reported as having private surgical insurance as of Jan. 1, 1969.

For the population under age 65, gross total enrollments for hospital care rose 24 percent between 1962 and 1968, and enrollment for surgical care increased 25 percent. By the end of 1969, enrollments had risen again, by almost 5 percent for hospital care and for surgical care. As measured by the household surveys, the increases in the net number of persons covered from 1962 to 1968 were 19 percent for hospital care and 21 percent for surgical care. The 1969 increases in enrollment were 3 percent for hospital care and 4 percent for surgical care, as shown by the projection of the 1968 household-survey estimates.

The picture is different for persons aged 65 and over. The number and proportion covered by private health insurance reached their maximum in 1965 and fell off with the advent of Medicare. Total enrollments dropped only 18 percent by the end of 1966, however—an indication that the great majority of the aged with private health insurance retained their insurance, shifting to policies or plans complementary to Medicare. After a further slight decline in 1967, enrollment rose in 1968 and 1969. The percentage of the aged population with private insurance coverage also increased in those years.

The steadily broadening scope of benefits under private health insurance is shown in table 10, which gives data on enrollment and estimated net population covered, by type of health care benefit. For all ages, coverage for X-ray and laboratory examinations, prescribed drugs, and private-duty nursing has almost doubled since 1962; net enrollment for physicians' office and home visits went up 51 percent; the number and percentage of persons with visiting-nurse service more than doubled; nursing-home care covered fire times as many persons; and dental care jumped eightfold.

TABLE 10.—ESTIMATES OF THE NET NUMBER OF DIFFERENT PERSONS UNDER PRIVATE HEALTH INSURANCE PLANS AND PERCENT OF POPULATION COVERED, BY AGE AND SPECIFIED TYPE OF CARE, 1962–69

End of year	Hospital Care	Physicians' services: Surgical services	Physicians' services: In-hospital visits	Physicians' services: X-ray and laboratory examinations	Physicians' services: Office and home visits	Dental care	Prescribed drugs	Private-duty nursing	Visiting-nurse service	Nursing-home care
All ages										
Number (in thousands):										
1962	129,800	120,528	(1)	65,671	56,986	1,006	47,907	46,143	43,303	4,975
1965	(1)	(1)	(1)	79,500	63,400	3,100	53,200	56,000	60,100	9,900
1966	(1)	(1)	(1)	90,000	73,706	4,227	65,544	68,722	79,004	17,814
1967	146,131	142,437	(1)	92,480	78,565	4,679	71,201	76,080	81,771	18,754
1968	152,117	146,295	128,174	97,703	85,311	5,821	79,280	83,485	90,523	19,046
1969	157,305	152,314	133,914	125,002	86,317	8,510	89,805	91,211	100,343	28,044
Percent of civilian population:										
1962	70.0	65.0	(1)	35.0	31.0	0.5	26.0	25.0	23.0	3.0
1965	(1)	(1)	(1)	41.2	32.9	1.6	27.6	29.0	31.2	5.1
1966	(1)	(1)	(1)	48.0	37.9	2.2	33.7	35.0	40.6	9.2
1967	74.3	72.4	(1)	47.0	39.9	2.4	36.2	38.7	41.6	9.2
1968	76.5	73.6	64.5	49.2	42.9	2.9	39.9	42.0	45.5	9.6
1969	78.3	75.8	66.6	62.2	43.0	4.2	44.7	45.4	49.9	14.0
Under age 65										
Numbe. (in thousands):										
1967	137,617	134,061	116,656	88,926	75,785	4,596	69,363	73,857	79,302	15,873
1968	142,837	137,274	121,104	93,714	82,295	5,719	76,748	81,309	87,697	16,921
1969	147,408	142,902	126,190	117,472	77,916	8,385	86,880	88,024	96,885	23,962
Percent of civilian population:										
1967	77.4	75.4	65.6	50.0	42.6	2.6	39.0	41.5	44.6	8.9
1968	79.6	76.5	67.5	52.2	45.9	3.2	42.8	45.3	48.9	9.4
1969	81.3	78.8	69.6	64.8	43.0	4.6	47.9	48.5	53.4	13.3
Aged 65 and over										
Number (in thousands):										
1967	8,514	8,376	5,905	3,554	2,780	83	1,838	2,223	2,470	2,881
1968	9,280	9,021	7,070	3,989	3,016	102	2,532	2,176	2,826	2,125
1969	9,897	9,412	7,724	7,530	8,401	125	2,925	3,187	3,458	4,082
Percent of civilian population:										
1967	45.0	44.0	31.1	18.7	14.6	0.4	9.7	11.7	13.0	15.2
1968	48.5	46.7	36.6	20.6	15.6	.5	13.1	11.3	14.6	11.0
1969	50.4	47.9	39.3	38.3	42.8	.6	14.9	16.2	17.6	20.8

[1] Data not available.

The expansion in the areas of physicians' office and home visits, private-duty nursing, and to some extent X-ray and laboratory examinations and prescribed drugs, comes largely through increased coverage under supplementary major medical and comprehensive insurance policies and extended-benefits contracts under Blue Cross-Blue Shield plans. Much of the expansion of coverage for X-ray and laboratory examinations, prescribed drugs, and dental care has come through self-insured employer-employee-union plans and community plans—both group practice and individual practice. It is clear, however, that all private health insurance organizations are tending to broaden the scope of their basic coverage.

Table 11 shows, for coverage of persons of all ages, the annual growth since 1955 in the number of persons under major medical policies of insurance companies and under supplementary major medical and comprehensive extended-benefits contracts of Blue Cross-Blue Shield plans. In 1969 group insurance policies covered twelve times the number covered under individual insurance policies, with supplementary major medical coverage outnumbering comprehensive coverages 3 to 1. Almost five times as many persons were covered under Blue Cross-Blue Shield supplementary major medical plans as the number covered under Blue Cross-Blue Shield comprehensive extended-benefit plans.

TABLE 11.—NUMBER OF PERSONS COVERED UNDER MAJOR MEDICAL POLICIES OF INSURANCE COMPANIES AND UNDER SUPPLEMENTARY MAJOR MEDICAL AND COMPREHENSIVE EXTENDED-BENEFITS CONTRACTS OF BLUE CROSS-BLUE SHIELD PLANS, 1955–69

[In thousands]

End of year	Insurance companies: Total	Insurance companies: Group policies: Total	Insurance companies: Group policies: Supplementary	Insurance companies: Group policies: Comprehensive	Insurance companies: Individual policies	Blue Cross-Blue Shield plans[1]: Total	Blue Cross-Blue Shield plans[1]: Supplementary major medical	Blue Cross-Blue Shield plans[1]: Comprehensive extended benefit
1955	5,241	4,759	3,928	831	482			
1960	27,448	25,608	17,285	8,323	1,840	3,713	3,020	693
1961	34,138	31,517	22,281	9,236	2,621	5,059	4,015	1,044
1962	38,250	35,053	25,301	9,752	3,197	7,501	5,068	1,735
1963	42,441	38,699	28,248	10,451	3,742	(2)	(2)	(2)
1964	47,001	42,579	31,772	10,807	4,422	(2)	(2)	(2)
1965	51,946	47,269	35,988	11,281	4,677	[3] 14,600	(2)	(2)
1966	56,742	52,002	39,685	12,317	4,740	14,352	10,409	3,943
1967	62,226	57,447	43,899	13,548	4,779	16,279	12,408	3,871
1968	66,841	61,738	46,935	14,803	5,103	17,807	14,078	3,729
1969	72,292	66,630	49,875	16,755	5,662	20,328	16,666	3,662

[1] Comparable data not available for earlier years; before 1965, data shown are for Blue Cross plans only; beginning 1965, data jointly developed by Blue Cross Association and National Association of Blue Shield Plans on unduplicated number of persons covered.

[2] Data not available.

[3] Data for Blue Cross plans plus an estimated 1,600,000 in Blue Shield plans not affiliated with Blue Cross.

Beginning in 1966, major medical coverage has increased at a faster pace under Blue Cross-Blue Shield plans than under insurance policies. However, the growth rate under individual insurance policies has stepped up rapidly since 1966, indicating that individual policies are frequently purchased as a supplement to a basic Blue Cross-Blue Shield plan or a group insurance plan.

With minor exceptions—mostly in the area of drugs—plans other than Blue Cross-Blue Shield and insurance company plans do not provide coverage of the major medical type. The community plans generally provide comprehensive physicians' services and usually

complete coverage of hospital care. A very small number of the employer-employee-union plans have major medical coverage.

Group-practice plans are of special interest, since they would, presumably, be important links to any national health insurance scheme. Moreover, group practice as a method of organization and delivery of health care will continue to be studied from the standpoint of improved quality of care and savings in costs, for both hospital utilization and use of physicians' services, and as a source of comprehensive and preventive care. Since 1953, enrollment in these plans has roughly doubled for hospital care, surgical services, and dental care (table 12). In the last 5 years growth is estimated at 38 percent for hospital care, 36 percent for surgical services, 33 percent for inhospital physicians' visits, and 31 percent for physicians' visits in office, clinic, and health center. The growth in dental care and in prescription drugs enrollment has been especially rapid during the past year—68 and 24 percent, respectively.

TABLE 12.—PRIVATE HEALTH INSURANCE ENROLLMENT UNDER GROUP PRACTICE PREPAYMENT PLANS, BY SPECIFIED TYPE OF CARE, 1953-69

[In thousands]

Year	Hospital care	Physicians' services: Surgical services	Physicians' services: In-hospital visits	Physicians' services: Office, clinic, or health center	Dental care	Drugs
1953	1,802	2,410	2,507	2,853	452	(1)
1956	2,428	3,177	3,399	3,395	248	(1)
1959	2,526	3,280	3,400	3,694	318	(1)
1961	2,586	3,484	3,643	3,643	398	518
1964	2,695	3,504	3,176	3,844	438	889
1966	2,771	3,763	3,430	4,158	(1)	(1)
1967	3,060	4,130	3,760	4,480	(1)	(1)
1968	3,043	4,051	3,730	4,404	518	1,382
1969	3,730	4,750	4,210	5,050	870	1,720

[1] Data not available.

FINANCIAL EXPERIENCE

In 1969 the subscription or premium income of all private health insurance organizations totaled $14.7 billion (table 13). Claims or benefit expense amounted to $13.1 billion or 89 percent of premium income. The organizations used $2.1 billion for operating expense (15 percent of premium income) and had a net underwriting loss of 4 percent. Some of this underwriting loss was made up by income from investment of reserves.

TABLE 13.—FINANCIAL EXPERIENCE OF PRIVATE HEALTH INSURANCE ORGANIZATIONS, 1969

[Dollar amounts in millions]

Type of plan	Total income	Subscription of premium income	Claims expense: Amount	Claims expense: Percent of premium income	Operating expense: Amount	Operating expense: Percent of premium income	Net underwriting gain: Amount	Net underwriting gain: Percent of premium income	Net income: Amount	Net income: Percent of premium income
Total	(1)	$14,657.7	$13,068.5	89.2	$2,133.7	14.6	−$544.5	−3.7	(1)	
Blue Cross-Blue Shield	$6,265.8	6,155.6	5,903.1	95.9	457.7	7.4	−205.2	−3.3	−$95.0	−1.5
Blue Cross	4,434.1	4,365.2	4,271.4	97.9	252.3	5.8	−158.5	−3.6	−89.6	−2.0
Blue Shield	1,831.7	1,790.4	1,631.7	91.1	205.3	11.5	−46.6	−2.6	−5.3	−.3
Insurance companies	(1)	7,569.0	6,306.0	83.3	1,609.5	21.3	−364.5	−4.6	(1)	
Group policies	(1)	5,685.0	5,349.0	94.1	750.4	13.2	−414.4	−7.3	(1)	
Individual policies	(1)	1,884.0	957.0	50.8	859.1	45.6	67.9	3.6	(1)	
Other plans	933.1	933.1	859.4	92.1	66.5	7.1	7.2	.8	7.2	.8
Community	375.0	375.0	349.0	93.1	27.0	7.2	−1.0	−.3	−1.0	.3
Employer-employee union	490.0	490.0	450.0	91.8	35.0	7.2	5.0	1.0	5.0	1.0
Private group clinic	16.3	16.3	14.2	87.1	1.1	6.8	1.0	6.1	1.0	6.1
Dental service corporation	51.8	51.8	46.2	89.2	3.4	6.6	2.2	4.2	2.2	4.2

[1] Data not available.

The Blue Cross-Blue Shield plans had a subscription income of $6.2 billion. About $5.9 billion of this total was used for benefits (96 percent) and $0.5 billion (7 percent) for operating expense. The net underwriting loss for the plans was $0.2 billion. The income from investments on reserves reduced this loss to $95 million. Blue Cross plans had almost 69 percent of the total Blue Cross-Blue Shield subscription or premium income, Blue Shield plans the remaining 29 percent. Blue Cross plans expended 98 percent of income for benefits; Blue Shield plans, 91 percent. The operating expenses were 6 percent of premium income for Blue Cross plans, 11 percent for Blue Shield plans. Blue Cross plans incurred a net underwriting loss of 4 percent of premium income; for Blue Shield plans the loss was 3 percent.

For insurance companies, total premium income reached $7.6 billion—one-fourth came from individual policies and three-fourths from group business. Group business paid out 94 percent of premium income in benefits; individual policies paid out 51 percent. Operating expense amounted to $859 million in individual business, compared with $750 million in group business. For all insurance policies, it represented 21 percent of premium income. Individual business showed a net underwriting gain of 4 percent of premium income; in group business the net underwriting loss was 7 percent.

Private health insurance plans other than Blue Cross-Blue Shield and insurance company plans had a total income of $933 million. They used 92 percent of such income for benefits, and 7 percent for operating expense, and they showed a net underwriting gain of almost 1 percent of premium income.

SOURCE OF DATA

The data for Blue Cross and Blue Shield plans are based on financial statements for all plans supplied by the Blue Cross Association and the National Association of Blue Shield Plans. Duplication resulting from the fact that six joint Blue Cross-Blue Shield plans report identical data to both national organizations has been eliminated. Data for Health Services, Incorporated, and for Medical Indemnity of America—insurance companies owned by the Blue Cross and Blue Shield associations, respectively—have been included.

The data on premium income and benefit expense of insurance companies were provided by HIAA. Premium income data come from the National Underwriter Company's annual survey of accident and health insurance and from HIAA's annual surveys of companies in this field. The division of group accident and health business between health care and wage loss is based on HIAA's annual survey of enrollment, premium income, and benefits paid under group business. For individual business, the distribution is based on HIAA's annual survey of benefits paid. Operating expenses were estimated by applying operating expense ratios to premium income derived from the National Underwriter Company aggregates [3] to HIAA premium income.

Of the total premium or subscription income of all private health insurance organizations in 1969, 42 percent was received by Blue Cross-Blue Shield plans; 52 percent by insurance companies (with group business three times the individual business); and 6 percent by other plans (table 14). The insurance company share of total benefit expense was somewhat smaller than their share of premium income. For both Blue Cross-Blue Shield plans and the other plans, the share of benefit expense was larger than their share of subscription income.

[3] *Argus 1970 Chart of Health Insurance*, p. 112.

TABLE 14.—PERCENTAGE DISTRIBUTION OF SUBSCRIPTION OR PREMIUM INCOME AND CLAIMS EXPENSE, BY TYPE OF PRIVATE HEALTH INSURANCE ORGANIZATION, 1948–69

Year	Total	Blue Cross-Blue Shield plans			Insurance companies			Other plans				
		Total	Blue Cross	Blue Shield	Total	Group policies	Individual policies	Total [1]	Community	Employer-employee-union	Private group clinic	Dental service corporation
	Subscription or premium income											
1948	100	42.3	36.5	5.8	48.8	24.6	24.2	8.8	[2]	[2]	[2]	[2]
1950	100	44.4	33.8	10.6	46.8	25.8	21.1	8.7	[2]	[2]	[2]	[2]
1955	100	41.0	28.9	12.1	51.7	32.5	19.2	7.3	[2]	[2]	[2]	[2]
1960	100	42.5	30.4	12.1	51.8	36.0	15.8	5.7	2.3	3.2	0.2	[3]
1961	100	42.0	30.0	12.0	51.4	36.2	15.2	6.6	2.2	3.8	.2	0.1
1962	100	42.1	29.9	12.2	51.4	36.5	14.9	6.5	2.2	3.8	.1	[3]
1963	100	42.2	30.3	11.9	51.4	36.2	15.2	6.4	2.3	3.6	.2	.1
1964	100	42.1	30.0	12.1	51.8	36.7	15.1	6.1	2.2	3.7	.1	.1
1965	100	41.7	29.9	11.8	52.2	36.6	15.6	6.1	2.2	3.7	.1	.1
1966	100	41.0	29.2	11.8	52.9	37.7	15.2	6.1	2.3	3.5	.1	.2
1967	100	41.0	29.1	11.9	52.8	38 5	14.3	6.2	2.5	3.3	.1	.3
1968	100	40.2	28.4	11.8	53.7	40.0	13.7	6.1	2.5	3.2	.1	.3
1969	100	42.0	29.8	12.2	51.6	38.8	12.8	6.4	2.6	3.3	.1	.4
	Claims expense											
1948	100	50.8	44.4	6.4	37.6	24.4	13.2	11.6	[2]	[2]	[2]	[2]
1950	100	49.5	38.6	10.9	40.3	25.9	14.4	10.2	[2]	[2]	[2]	[2]
1955	100	45.2	32.8	12.4	46.5	33.8	12.7	8.3	[2]	[2]	[2]	[2]
1960	100	45.8	32.9	12.8	47.8	38.0	9.8	6.4	[2]	[2]	[2]	[2]
1961	100	45.4	32.8	12.6	47.5	38.1	9.4	7.1	[2]	[2]	[2]	[2]
1962	100	45.6	32.5	13.1	47.5	38.7	8.8	6.9	[2]	[2]	[2]	[2]
1963	100	45.6	33.2	12.4	47.7	38.3	9.5	6.7	[2]	[2]	[2]	[2]
1964	100	45.6	33.1	12.5	48.0	38.6	9.4	6.3	[2]	[2]	[2]	[2]
1965	100	44.8	32.7	12.1	48.9	39.1	9.8	6.3	2.3	3.8	0.1	0.1
1966	100	43.5	31.5	12.0	50.2	40.6	9.6	6.4	2.4	3.6	.1	.2
1967	100	42.8	31.0	11.7	50.7	41.9	8.8	6.5	2.6	3.5	.1	.3
1968	100	42.7	31.1	11.6	51.0	42.7	8.3	6.3	2.6	3.3	.1	.3
1969	100	45.2	32.7	12.5	48.2	40.9	7.3	6.6	2.7	3.4	.1	.4

[1] Medical society data not included. [2] Data not available. [3] Less than 0.05 percent.

Insurance companies have consistently received the largest share of all premium and subscription income from 1948 to 1969. Beginning in 1955, their claims expenditures ran higher than that of Blue Cross-Blue Shield plans. Group business has accounted for much of the increase in benefit expenditures: in 1948 the group share was almost twice the individual share; in 1969 it was more than five times the individual share. From 1948 to 1964, plans other than those of the Blue Cross-Blue Shield associations and insurance companies showed a gradually declining share of subscription income and benefit expenditures. Since 1964, there has been a general leveling off, with evidence of a slight upturn in 1969.

BENEFIT EXPENDITURES AND TYPES OF CARE

Sixty-four percent of benefit expenditures by all private health insurance organizations went for hospital care; 31 percent for physicians' services; slightly more than 1 percent for dental care; and 4 percent for other types of benefits—mainly private-duty nursing and drugs (table 15). Blue Cross-Blue Shield plans spent more for hospital care—70 percent of benefit expenditures for all types of care—than did insurance companies (61 percent). Plans other than Blue Cross-Blue Shield plans and those of insurance companies paid out 8 percent of benefits for dental care, compared with 1.3 percent spent by insurance companies and less than ½ of 1 percent by Blue Cross-Blue Shield plans.

TABLE 15.—BENEFIT EXPENDITURES OF PRIVATE HEALTH INSURANCE ORGANIZATIONS, BY SPECIFIED TYPE OF CARE, 1969

[Dollar amounts in millions]

Type of plan	Total benefit expenditures		Hospital care		Physicians' services		Dental care		Other types of care	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Total	$13,068.5	100.0	$8,356.2	64.0	$4,028.9	30.8	$154.8	1.2	$528.6	4.0
Blue Cross-Blue Shield	5,903.1	100.0	4,155.4	70.4	1,565.4	26.5	2.4	[1]	179.9	3.1
Blue Cross	4,271.4	100.0	4,044.4	94.7	106.7	2.5	.8	[1]	119.5	2.8
Blue Shield	1,631.7	100.0	111.0	6.8	1,458.7	89.4	1.6	.1	60.4	3.7
Insurance companies	6,306.0	100.0	3,845.0	61.0	2,072.0	32.9	83.0	1.3	306.0	4.8
Group policies	5,349.0	100.0	3,191.0	59.7	1,814.0	33.9	83.0	1.5	261.0	4.9
Individual policies	957.0	100.0	654.0	68.3	258.0	27.0	[1]		45.0	4.7
Other plans	859.4	100.0	355.8	41.4	391.5	45.5	69.4	8.1	42.7	5.0
Community	349.0	100.0	105.0	30.1	230.0	65.9	7.0	2.0	7.0	2.0
Employer-employee-union	450.0	100.0	250.0	55.6	150.0	33.3	15.0	3.3	35.0	7.8
Private group clinic	14.2	100.0	.8	5.6	11.5	81.0	1.2	8.5	.7	4.9
Dental service corporation	46.2	100.0					46.2	100.0		

[1] Less than 0.05 percent.

BENEFIT EXPENDITURES PER ENROLLEE

Table 16 gives some idea of the relative depth or comprehensiveness of the coverage provided by the various private health insurance organizations to their enrollees. In 1969, Blue Cross-Blue Shield plans led the other carriers with an average $56.76 per year for hospital care benefits per person enrolled for this type of benefit. For those enrolled with insurance companies for this benefit, per capita expenditures were $31.63. The average per person was $46.63 in the other plans. The lowest annual expenditure—$15.77 per person—was made by insurance companies under individual policies.

TABLE 16.—BENEFIT EXPENDITURES OF PRIVATE HEALTH INSURANCE ORGANIZATIONS PER PERSON ENROLLED FOR SPECIFIED BENEFITS, 1969

Type of plan	Hospital care	Physicians' services
Blue Cross-Blue Shield	$56.76	$23.51
Blue Cross	57.27	29.40
Blue Shield	42.84	23.17
Insurance companies	31.63	18.76
Group policies	39.84	22.80
Individual policies	15.77	8.87
Other plans	46.63	39.35
Community	40.38	51.11
Employer-employee-union	50.00	28.30

These averages reflect (1) the high utilization rate of hospital care under Blue Cross-Blue Shield contracts that provide more days of coverage and more comprehensive coverage of hospital costs than group policies of insurance companies, (2) the generally meager coverage under individual insurance policies, and (3) the relatively lower utilization rates under community group-practice plans.

For physicians' services, community plans led the other carriers with a per capita expenditure of $51.11: most community plans provide a virtually complete coverage of in-office, home, and hospital visits. Blue Cross-

Blue Shield plans spent $23.51 per person enrolled, and $8.87 per person covered was spent under individual policies of insurance companies. The enrollment for surgical insurance was used in making these calculations.

TRENDS

Data are presented in table 17 on the premium income and benefit expenditures of private health insurance organizations from 1948 to 1969. Premium income and benefit expenditures for all plans rose at about the same rate in 1969 as in previous years, but there was a marked shift in the gains among the carriers. Blue Cross-Blue Shield subscription income rose more sharply than it had in the previous year—19 percent compared with 14 percent. Benefit expenditures were up 22 percent from the amount spent in the preceding year.

TABLE 17.—SUBSCRIPTION OR PREMIUM INCOME AND BENEFIT EXPENDITURES OF PRIVATE HEALTH INSURANCE ORGANIZATIONS, 1948–69
[In millions]

Year	Total	Blue Cross-Blue Shield plans			Insurance companies			Other plans
		Total	Blue Cross	Blue Shield	Total	Group policies	Individual policies	
Income:								
1948	$862.0	$365.0	$315.0	$50.0	$421.0	$212.0	$209.0	$76.0
1950	1,291.5	574.0	436.7	137.3	605.0	330.3	272.0	112.5
1955	3,149.6	1,292.4	910.7	381.7	1,626.9	1,022.5	604.4	230.3
1960	5,841.0	2,482.1	1,773.0	709.1	3,027.0	2,104.0	923.0	331.9
1961	6,673.3	2,805.1	2,004.4	800.7	3,427.0	2,414.0	1,013.0	441.2
1962	7,411.1	3,118.6	2,212.8	905.8	3,810.0	2,708.0	1,102.0	482.5
1963	8,053.6	3,399.4	2,438.7	960.7	4,136.0	2,913.0	1,223.0	518.2
1964	9,983.6	3,785.1	2,697.6	1,087.5	4,652.0	3,297.0	1,355.0	546.5
1965	10,001.3	4,169.0	2,903.7	1,175.3	5,224.0	3,665.0	1,559.0	608.3
1966	10,564.1	4,327.8	3,085.9	1,241.9	5,595.0	3,987.0	1,608.0	641.3
1967	11,105.3	4,555.3	3,230.0	1,325.3	5,858.0	4,270.0	1,588.0	692.0
1968	12,898.7	5,187.1	3,665.0	1,522.1	6,933.0	5,159.0	1,774.0	778.6
1969	14,657.7	6,155.6	4,365.2	1,790.4	7,569.0	5,685.0	1,884.0	933.1
Benefit expenditures:								
1948	606.0	308.0	269.0	39.0	228.0	148.0	80.0	70.0
1950	991.9	490.6	382.9	107.7	400.0	257.0	143.0	101.2
1955	2,535.7	1,146.7	832.2	314.5	1,179.0	858.0	321.0	210.0
1960	4,996.3	2,287.1	1,646.2	640.9	2,389.0	1,901.0	488.0	320.2
1961	5,965.4	2,585.4	1,867.1	718.3	2,706.0	2,170.0	536.0	404.0
1962	6,343.8	2,893.6	2,064.5	829.1	3,012.0	2,453.0	559.0	438.2
1963	6,979.3	3,179.5	2,317.3	862.2	3,332.0	2,671.0	661.0	467.8
1964	7,832.1	3,574.4	2,592.8	981.6	3,763.0	3,024.0	739.0	494.7
1965	8,728.9	3,912.9	2,853.4	1,059.5	4,265.0	3,413.0	852.0	551.0
1966	9,141.8	3,975.4	2,882.2	1,093.2	4,585.0	3,711.0	874.0	581.4
1967	9,544.8	4,082.8	2,963.1	1,119.7	4,836.0	3,998.0	839.0	625.0
1968	11,343.6	4,840.6	3,529.2	1,311.4	5,791.0	4,841.0	950.0	712.0
1969	13,068.5	5,903.1	4,271.4	1,631.7	6,306.0	5,349.0	957.0	859.4

Insurance company premiums increased only 9 percent in group business and 6 percent in individual business. Their benefit expenditures rose about 10 percent in group business and less than 1 percent in individual business; in 1968 the gains had been 21 percent in premium income for group business and 12 percent for income of individual policies. Plans other than Blue Cross-Blue Shield plans and insurance company plans showed a 20-percent increase in income. Their expenditures rose 21 percent, the 1948 rise had been 14 percent.

As a result of the growth pattern of income and benefit expenditures, Blue Cross-Blue Shield plans received 42 percent of the premium income of all private health insurance plans in 1969; their share was 40 percent in 1968 (table 14). Insurance company premium income accounted for 52 percent of all subscription and premium income—a drop from the 54 percent in the previous year. Other plans received 6 percent of the income—up slightly from the previous year. Similar shifting in relative shares was reflected in the benefit expenditure data.

Claims expense of Blue Cross plans continued to increase more rapidly than subscription income. As a result the claims expense ratio rose from 96 percent to 98 percent of subscription income and the 2 percent underwriting loss of 1968 went up to well over 3 percent (table 18). The increase in claims expense reflects rising hospital costs. The operating expense ratio also continued its upward trend.

TABLE 18.—FINANCIAL EXPERIENCE OF BLUE CROSS PLANS, 1950–69[1]
[Amounts in thousands]

Year	Reserves	Earned subscription income	Total earned income	Claims expense	Operating expense	Total net income or loss	As percent of subscription income			Net income as percent of total income
							Claims expense	Operating expense	Underwriting gain or loss	
1950	$116,531	$433,770	$436,984	$383,331	$36,281	$17,371	88.4	8.4	3.3	4.0
1955	254,407	916,690	925,197	836,546	58,368	30,283	91.3	6.4	2.4	3.3
1960	363,253	1,783,172	1,802,789	1,654,951	90,821	57,017	92.8	5.1	2.1	3.2
1961	410,658	2,011,062	2,035,740	1,872,939	99,269	63,531	93.1	4.9	1.9	3.1
1962	454,626	2,230,747	2,257,523	2,103,084	107,204	47,235	94.3	4.8	.9	2.1
1963	492,872	2,467,195	2,497,377	2,343,321	115,228	38,918	95.0	4.7	.4	1.6
1964[2]	511,112	2,731,380	2,766,829	2,624,302	124,969	17,558	96.1	4.6	−.7	.6
1965[2]	561,906	2,031,470	3,074,551	2,887,187	134,559	52,805	95.2	4.5	.3	1.7
1966	649,633	3,121,111	3,168,187	2,912,733	154,132	101,322	93.3	4.9	1.7	3.2
1967	797,575	3,270,022	3,327,677	2,996,799	177,632	153,266	91.6	5.4	3.0	4.6
1968	801,389	3,711,798	3,776,487	3,571,797	211,698	−7,008	96.2	5.7	−1.9	−.2
1969	711,274	4,419,296	4,322,341	256,227		−89,302	97.8	5.8	−3.6	−2.0

[1] Data in all years exclude Health Services, Inc., and are not adjusted for duplication between Blue Cross and Blue Shield. [2] Includes Puerto Rico.

Blue Shield subscription income in 1969 was 17 percent higher than it was in 1968, and claims expense was 24 percent higher (table 19). The claims expense ratio increased from 87 percent to 91 percent; this rise, together with a slight increase in operating expenses, resulted in a 3-percent underwriting loss.

TABLE 19.—FINANCIAL EXPERIENCE OF BLUE SHIELD PLANS, 1950–69[1]
[Amounts in thousands]

Year	Reserves	Earned subscription income	Total earned income	Claims expense	Operating expense	Total net income or loss	As percent of subscription income			Net income as percent of total income
							Claims expense	Operating expense	Underwriting gain or loss	
1950	$34,954	$140,817	$141,594	$111,039	$18,653	$11,902	78.8	13.2	7.9	8.4
1955	164,705	399,781	404,294	331,068	43,610	29,616	82.8	10.9	6.3	7.3
1960	228,634	741,164	761,529	670,776	76,245	4,508	90.5	10.3	−.8	.6
1961	236,101	837,773	848,992	752,695	82,741	13,556	89.8	9.9	.3	1.6
1962[2]	266,536	974,086	985,373	868,816	91,136	25,421	89.2	9.4	1.5	2.6
1963[2]	289,440	1,086,356	1,101,745	977,147	99,662	24,936	89.9	9.2	.9	2.3
1964[3]	317,528	1,209,394	1,227,557	1,095,713	108,691	23,153	90.6	9.0	.4	1.9
1965[3]	347,266	1,318,915	1,338,907	1,190,486	115,940	32,481	90.3	8.8	.9	2.4
1966	398,374	1,399,890	1,413,185	1,226,383	129,864	56,938	88.2	9.3	2.5	4.0
1967	509,094	1,489,640	1,519,309	1,261,650	148,750	108,909	84.7	10.0	5.3	7.2
1968	578,390	1,709,548	1,747,867	1,481,070	180,154	86,643	86.6	10.5	2.8	5.0
1969	555,079	2,007,970	2,054,571	1,834,495	222,514	−2,438	91.4	11.1	−2.5	−.1

[1] Data in all years exclude Medical Indemnity of America and are not adjusted for duplication between Blue Cross and Blue Shield. [2] Includes Jamaica. [3] Includes Puerto Rico but excludes Jamaica.

The financial experience of insurance companies in 1969 was generally similar to that in the past few years. Claims expense under group business amounted to 94 percent of premium income and operating expense was 13 percent of premium income. The net loss from underwriting was 7 percent (table 13). This loss is made up to some degree by income from investment of reserves but largely by gains in group disability and group life insurance.

Under individual policies the claims ratio of 51 percent was slightly lower than the 1968 ratio; the operating-expense ratio was 46 percent, compared with 47 percent in 1968. A small underwriting gain occurred in 1969 and a slight loss the year before.

The trend in the distribution of benefit expenditures of private health insurance organizations from 1950 to 1969 is delineated in table 20. The 1969 distribution shows little change from that of the immediately preceding years.

In 1969 the net cost of private health insurance to the American public was $1.6 billion. This amount is the difference between earned premium or subscription income and benefit expenditures (claims expense). It represents the retentions by the carriers to cover operating expenses, additions to reserves, and profits. Retentions of Blue Cross-Blue Shield plans amounted to $253 million. Approximately $1.3 billion was retained by insurance companies and $74 million by other plans. It should be pointed out that insurance companies pay premium taxes of 2–3 percent (varying from State to State) from which Blue Cross-Blue Shield plans and other plans are generally exempt. These plans do, however, carry the full cost of administration. Under most large group insurance policies the employer performs much of the administrative work, including determination of eligibility and review and payment of claims.

Over the years, consumers have been able to buy health insurance on increasingly advantageous terms in the sense that they get back increasingly more of their premium or subscription dollar in benefits. Evidence of this trend is the steady decline in the retention ratio—retentions as a percent of premium income (table 21). In 1948 the retention rate for all private health insurance organizations was 30 percent; in 1969 it was 11 percent. This decline is the result of two main factors: (1) The steady drop in the retention rates of Blue Cross-Blue Shield plans, and group insurance business, and (2) the steady decline in the relative importance of insurance company individual business with its very high retention rates. Retention rates for all plans other than Blue Cross-Blue Shield and insurance company plans were the same in 1969 and in 1948. Community plans and employer-employee-union plans are lowering their retention rates and private group clinics and dental corporations are showing considerably higher retention rates.

TABLE 20.—BENEFIT EXPENDITURES OF ALL PRIVATE HEALTH INSURANCE ORGANIZATIONS, BY SPECIFIED TYPE OF CARE, 1950-69

Year	Total	Hospital care	Physicians' services	Other types of care
	Amount (in millions)			
1950	$992	$680	$312	(1)
1955	2,536	1,679	857	(1)
1960	4,996	3,304	1,593	$99
1961	5,695	3,766	1,796	133
1962	6,344	4,197	1,992	155
1963	6,980	4,642	2,153	185
1964	7,832	5,187	2,427	218
1965	8,729	5,790	2,680	259
1966	9,142	5,993	2,831	318
1967	9,545	6,133	2,964	447
1968	11,344	7,329	3,477	538
1969	13,069	8,356	4,029	684
	Percentage distribution			
1950	100.0	68.5	31.5	(1)
1955	100.0	66.2	33.8	(1)
1960	100.0	66.1	31.9	2.0
1961	100.0	66.1	31.5	2.3
1962	100.0	66.2	31.4	2.4
1963	100.0	66.5	30.8	2.7
1964	100.0	66.2	31.0	2.8
1965	100.0	66.3	30.7	3.0
1966	100.0	65.6	31.0	3.5
1967	100.0	64.3	31.1	4.7
1968	100.0	64.6	30.7	4.7
1969	100.0	63.9	30.8	5.3

[1] Included in physicians' services.

TABLE 21.—RETENTIONS[1] OF PRIVATE HEALTH INSURANCE ORGANIZATIONS AS A PERCENT OF SUBSCRIPTION OR PREMIUM INCOME, 1948-69[2]

Year	Blue Cross-Blue Shield plans				Insurance companies			Other plans[3]				
	Total	Total	Blue Cross	Blue Shield	Total	Group policies	Individual policies	Total	Community	Employer-employee-union	Private group clinic	Dental service corporations
1948	29.7	15.6	14.6	22.0	45.8	30.2	61.7	7.9	(3)	(3)	(3)	(3)
1950	23.2	14.5	12.3	21.6	33.9	22.8	47.4	10.0	(3)	(3)	(3)	(3)
1955	19.5	11.3	8.6	17.6	27.5	16.1	46.9	8.8	(3)	(3)	(3)	(3)
1960	14.5	7.9	7.2	9.6	21.1	9.6	47.1	3.5	(3)	(3)	(3)	(3)
1961	14.7	7.8	6.8	10.3	21.0	10.1	47.1	8.4	(3)	(3)	(3)	(3)
1962	14.4	7.2	5.7	11.0	20.9	9.4	49.3	9.2	(3)	(3)	(3)	(3)
1963	13.3	6.5	5.0	10.3	19.4	8.3	46.0	9.7	(3)	(3)	(3)	(3)
1964	12.8	5.6	3.9	9.7	19.1	8.3	45.5	9.5	(3)	(3)	(3)	(3)
1965	12.7	6.1	4.7	9.9	18.4	6.9	45.3	9.4	8.2	10.2	10.7	6.9
1966	13.5	8.1	6.6	12.0	18.1	6.9	45.6	9.3	8.0	10.2	11.8	6.5
1967	14.0	10.4	8.3	15.5	17.4	6.4	47.2	9.7	8.4	10.8	13.3	6.2
1968	10.4	6.7	3.7	13.8	16.5	6.2	46.4	8.6	6.2	9.7	5.8	17.2
1969	10.8	4.1	2.2	8.9	16.7	5.9	49.2	7.9	6.9	8.2	12.9	10.8

[1] Amounts retained by the organizations for operating expenses, addition to reserves, and profits.
[2] Derived from table 17.
[3] Data by type of plan before 1965 not available.

Proportion of Consumer Expenditures Met By Insurance

Thirty-seven percent of consumer expenditures for health care was met by private health insurance benefits in 1969.[4] Excluded from this figure is the net cost of obtaining health insurance protection—the difference between health insurance premiums or subscription costs and benefits paid. For hospital care, private health insurance met 71 percent of consumer expenditures, compared with 74 percent last year, apparently inflation kicked up hospital costs faster than private insurance benefits were able to adjust. For physicians' services, the proportion met by private health insurance was 43 percent in 1969, compared with 41 percent in 1968. For other types of health care the proportion was 5 percent up from 4 percent last year.

Except for hospital care, the proportions of expenditures met by private health insurance continue the upward trend of previous years, as shown below.

Year	Total	Hospital care	Physicians' services	Other types of care
1950	12.1	34.6	12.0	(1)
1955	21.5	51.8	25.0	(1)
1960	27.7	63.7	30.0	1.3
1961	29.9	66.2	32.7	1.7
1962	30.9	68.2	33.0	1.9
1963	31.7	67.2	33.6	2.1
1964	31.5	68.1	32.2	2.3
1965	32.4	70.2	32.7	2.5
1966	32.0	67.6	33.8	2.8
1967	33.3	71.9	35.8	3.8
1968	36.7	74.3	40.7	4.3
1969	37.4	71.2	42.6	5.0

[1] Included in physicians' services.

The estimates of consumer expenditures for health care include some items that are not covered by health insurance—nonprescribed drugs, various drug sundries, and sunglasses. Whether the difference in cost between private and semiprivate accommodations, when not medically required, should be included as a health insurance item is sometimes questioned. This expense is, of course, one that many purchasers of insurance want covered. If these types of health care expenditures were to be deducted from consumer health care expenditures, the proportion of such expenditures met by insurance would be probably 3 or 4 percentage points higher than shown above.

In 1969, private payments by consumers—out of pocket and through private health insurance—made up approximately 63 percent of the total national expenditures for personal health care, as estimated by the Office of Research and Statistics. The remainder came mainly from public funds, with a small proportion from philanthropy. Of the total estimated expenditures for personal health care, private health insurance met 24 percent in 1969, and 23 percent in 1968.

[4] Barbara S. Cooper and Mary McGee, *National Health Expenditures, Fiscal Years 1929–70 and Calendar Years 1929–69* (Research and Statistics Note No. 25), Office of Research and Statistics, December 14, 1970.

STUDY OF CRITICAL ENVIRONMENTAL PROBLEMS

Mr. GOLDWATER. Mr. President, I ask unanimous consent to have printed in the RECORD a summary of major findings and recommendations in connection with a study of critical environmental problems, sponsored by the Massachusetts Institute of Technology.

There being no objection, the summary was ordered to be printed in the RECORD, as follows:

SUMMARY OF MAJOR FINDINGS AND RECOMMENDATIONS, STUDY OF CRITICAL ENVIRONMENTAL PROBLEMS (SCEP)—SPONSORED BY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Corrected and revised July 31—Supersedes July 30 summary

(NOTE.—The findings and recommendations in this document were developed by SCEP Work Groups through intensive, full-time discussion and study during the month of July at Williams College, Williamstown, Mass. Each statement has been subscribed to by all members of at least one Work Group. All those attending the Study had an opportunity to examine these conclusions and the papers on which they were based, but all participants had neither the time nor the expertise required to make an independent judgment on each and every finding and recommendation. The summary was presented July 30–31 at the conclusion of the study.)

SCEP FOCUS ON GLOBAL PROBLEMS

In order to most effectively use the finite resources and time available for SCEP, it was necessary to limit the scope and character of the problems which were chosen for intensive investigation. SCEP focused on environmental problems whose cumulative effects on ecological systems are so large and prevalent that they have world-wide significance. Thus the Study was primarily concerned with the indirect effects of pollution on man through changes in climate, ocean ecology, or in large terrestrial ecosystems.

In general, local and regional environmental problems, the first order effects of population growth, and the direct health effects of pollution on man were not considered by the Study. This choice does not imply that these latter problems areas are not of critical concern. Indeed, they are so important that many organizations are deeply concerned with studying and ameliorating those local and regional problems. However, no organization is charged with the responsibility for determining the status of the total global environment and alerting man to dangers which may result from his practices. SCEP attempted to perform this function.

The existence of a global problem does not necessarily imply the need for a global solution. The sources of pollution are activities of man which can often be effectively controlled or regulated where they occur. Most corrective action will probably ultimately have to be taken at the national, regional, and local levels.

THE PROBLEMS STUDIED

The global environmental problems studied by SCEP were:

Climatic effects of increasing carbon dioxide content of the atmosphere.

Climatic effects of the particle load of the atmosphere.

Climatic effects of contamination of the troposphere and stratosphere by sub-sonic and super-sonic transport aircraft.

Ecological effects of DDT and other toxic persistent pesticides.

Ecological effects of mercury and other toxic heavy metals.

Ecological effects of petroleum oil in the oceans.

Ecological effects of nutrients in estuaries, lakes and rivers.

For these topics, the following general questions were addressed:

What can we now authoritatively say on the subject?

What are the gaps in knowledge which limit our confidence in the assessments we can now make?

What must be done to improve the data and our understanding of its significance so that better assessments may be made in the future?

What programs of focused research, monitoring, and/or action are needed?

What are the characteristics of the national and/or international action needed to implement the recommendations of the Study?

SUMMARY OF FINDINGS AND RECOMMENDATIONS

Carbon dioxide in the atmosphere

Discussion of Findings

All combustion of fossil fuels produces CO_2. It has been steadily increasing in the atmosphere at 0.2% per year. Half of the amount man puts into the atmosphere stays and produces this rise in concentration. The other half goes into the biosphere and the oceans, but we don't know the partition in uptake, as between these two reservoirs.

CO_2 from fossil fuels is a small part of the natural CO_2 which is constantly being exchanged between the atmosphere/oceans and the atmosphere/forests. We have very little knowledge of such amounts.

The projected 18% increase resulting from fossil fuel combustion to the year 2000 might increase the surface temperature of the earth .5°C; a doubling of the CO_2 might increase mean annual surface temperatures 2°C. Surface temperature changes of 2°C could lead to long-term warming of the planet. These estimates are based on a relatively primitive computer model with no consideration of important motions in the atmosphere, and hence are very uncertain but they are the best we have.

If we had to stop producing CO_2, no coal, oil, or gas could be burned and all modern societies would come to a halt. The only possible alternative is nuclear energy, whose by-products may cause serious environmental effects. Also, we don't have electric motor vehicles to be propelled by electricity from nuclear energy.

SCEP believes that direct climate change in this century resulting from CO_2 is small but its long term potential consequences are so large that much more must be learned about future trends of climate change if society is to have time to adjust to changes which may be necessary.

Recommendations

1. Improvement of our estimates of future combustion of fossil fuels and the resulting emissions.

2. Study of changes in the mass of living matter and decaying products.

3. Continuous measurement and study of the carbon dioxide content of the atmosphere in a few areas remote from known sources—specifically four stations and some aircraft flights. We particularly recommend that the existing record at Mauna Loa Observatory be continued indefinitely.

4. Systematic study of the partition of carbon dioxide between the atmosphere and the oceans, and biomass.

5. Development of comprehensive global computer models which include atmospheric motions and ocean-atmosphere interaction to study: circulation, clouds, precipitation and temperature patterns for expected CO_2 levels, and effects of stratospheric cooling.

Fine particles in the atmosphere

Discussion of Findings

Fine particles change the heat balance of the earth because they both reflect and absorb radiation from the sun and the earth. Large amounts of such particles enter the troposphere (the zone up to 40,000 feet) from natural sources such as sea spray, wind blown dust, volcanoes and from the conversion of naturally occurring gases—SO_2, NO_x, and hydrocarbons—into particles.

Man puts large quantities of sulfates, nitrates and hydrocarbons into the atmosphere which becomes fine particles and include special species, such as urban smog.

Particle levels have been increasing as observed at stations in Europe, North America, and the North Atlantic, but not over the Central Pacific.

We do not know enough about the optical properties (reflection vs. absorption) of particles to know whether they produce warming or cooling of the earth surface.

Recommendations

1. Studies to determine optical properties of fine particles, their sources, transport, and amounts in both troposphere and stratosphere, and their effects on cloud reflectivity.

2. Extending and improving solar radiation measurements.

3. Study of feasibility of satellite measurements of particle concentration and distribution.

4. Monitoring from ground and aircraft—10 fixed long-term stations and 100 stations for short-lived particles.

5. Develop atmospheric computer models which include particles.

Thermal pollution

Although by the year 2000 we expect global thermal power output to be six times the present level, we do not expect it to affect global climate. Over cities it does already create "heat islands" and as these grow larger, they may have regional climatic effects and they should be studied.

Atmospheric oxygen—non-problem

Atmospheric oxygen is practically constant. It varies neither over time (since 1910) nor regionally and is always very close to 20.946%. Calculations show that depletion of oxygen by burning all the recoverable fossil fuels in the world would reduce it only to 20.800%. It should probably be measured every ten years to make sure that it is remaining constant.

Effects of present jet aircraft

Observers all over the world have watched a jet contrail spread out to form a cirrus cloud. Observations at Denver and Salt Lake City show a systematic increase in such clouds since the advent of jets. Although they seem to be only regional there is a possibility that they may have broader effects and should be studied.

SST's in the stratosphere

Discussion of Findings

The stratosphere where supersonic jet transports will fly at 65,000 feet is a very rarified region with little vertical mixing. Gases and particles produced by jet exhaust may remain for one to three years before disappearing.

Using FAA estimates of 500 SST's operating in 1985–90 mostly in the Northern Hemisphere, flying seven hours a day, at 65,000 feet, propelled by 1,700 engines like the GE–4 being developed for the Boeing 2707–300, we have estimated the steady state amounts of combustion products using GE calculations of the amount of such products because no test measurements exist. We have compared such amounts on a steady state basis with the natural levels of water vapor, sulfates, nitrates, hydrocarbon and soot. All are believed to form fine particles. We have also compared these levels with the amounts of particles put into the atmosphere by the volcano eruption of Mt. Agung in Bali in 1963.

In our calculations we used jet fuel of 0.05% sulfur. We are told that a specification of 0.01% sulfur could be met in the future at higher cost.

We do not believe that CO_2 resulting from such operations is likely to affect the climate. We are genuinely *concerned about the possibility of increased stratospheric cloudiness,* and about the fine particles, even using the calculated amounts given us by GE.

Clouds are known to form in the winter polar stratosphere. Two factors will increase the future likelihood of greater cloudiness in the stratosphere due to moisture added by the SST. First is the increased stratospheric cooling due to the increasing CO_2 content of the atmosphere. Second is the closer approach

to saturation indicated by the observed increase of stratospheric moisture.

The largest engine whose combustion products have been actually measured in static ground tests was the P&W JT9D used on the Boeing 747. Its fuel consumption rate is one third that of the GE–4. Combustion products from such tests of the JT9D, leading to particles, were much greater than the calculated values for the GE–4.

It is claimed that the particle formation is very small at 65,000 feet. Very, very little is known about reactions under such conditions. One guess is now as good as another.

Depending upon the actual particle formation, the effects of 500 SST's could range from a small, widespread continuous "Agung" effect to one as big as "Agung."

The temperature of the equatorial stratosphere (a belt around the globe) increased 6–7° C. and remained at 2–3° C. above its pre-Agung level for several years. No apparent temperature change was found in the lower troposphere.

Clearly such consequences are on a global scale even though the most pronounced effects would be felt where the highest density of traffic existed, i.e. the North Atlantic Ocean.

Conclusions

SCEP concludes with respect to contamination of the stratosphere by products of SST's that:

1. CO_2 creates no problem.

2. Global water vapor may increase 10%; increases in regions of dense traffic may go up 60%.

3. Particles from SO_2, hydrocarbons and soot may double pre-Agung global averages and peak at ten times those levels where there is dense traffic.

4. Effects on climate could be: increased clouds from water vapor and increased temperatures in the stratosphere with possible increase in surface temperatures.

5. A feeling of genuine concern has emerged from the above set of conclusions. The projected SST's can have a clearly measurable effect in a large region of the world and quite possibly on a global scale. We must emphasize that we cannot be certain about the magnitude of the various consequences.

Recommendations

1. That uncertainties about SST contamination and its effects be resolved before large scale operation of SST's begins.

2. That the following program of action be commenced as soon as possible:

a. Begin to monitor the lower stratosphere for water vapor and particles and develop means to measure SO_2, NO_x and hydrocarbons.

b. Determine whether additional cloudiness will occur in the stratosphere and the effects of such changes.

c. Obtain better estimates of emission of combustion products under simulated flight conditions and under real flight conditions at the earliest opportunity.

d. Using data resulting from a, b, and c, estimate effects on weather and climate.

DDT and related persistent toxic pesticides

The ecological effects which have been identified with DDT are both general and specific. In general, the use of pesticides on crops generally requires continued and increased use of different and stronger pesticides. This is the result of a complex ecological system in which the reduction of one pest and innocuous (to man) predators allows new pests to become dominant. As one example, the egg shells of many birds are becoming thinner reducing hatching success. In several species, these effects now seriously threaten reproductive capabilities. Damage to these predators in ecological system tends to create a situation in which pest outbreaks are likely to occur.

The concentrations and effects of DDT in the open oceans are not known. There are no reliable estimates and no direct measurements have been made. It is known that large amounts leave the area of application through the atmosphere and are transmitted through the world and some portion of this falls into the oceans.

DDT collects in marine organisms. Detrimental effects have not been observed in the open ocean but DDT residues in mackerel caught off of California have already exceeded permissible tolerance levels for human consumption. It is known that reproduction of fresh-water game fish are being threatened. The effect of DDT on the ability of ocean phytoplankton to convert carbon dioxide into oxygen is not considered significant. The concentration necessary to induce significant inhibition exceeds expected concentrations in the open ocean by ten times its solubility (1 ppb) in water.

As DDT is being phased out, control measures must be accomplished through a variety of existing techniques such as biological controls and environmental management in addition to the use of degradable insecticides to offset food and health problems in the developing countries.

Recommendations

1. We recommend a drastic reduction in the use of DDT as soon as possible *and* that subsidies be furnished to developing countries to enable them to afford to use non-persistent, but more expensive pesticides, and other pest control techniques.

2. In order to obtain information about the concentrations and effects of DDT in the marine environment, a baseline program of measurement should be initiated. This might involve taking about one thousand samples at selected locations and analyze them over the course of a year. A full-scale monitoring program should await the results of such a program.

3. We recommend greatly increased effort and support for the research and development of integrated pest control, combining a minimal use of pesticides with maximal use of biological control.

Mercury and other toxic heavy metals

Discussion of Findings

Many heavy metals are highly toxic to specific life stages of a variety of organisms especially shellfish. Most are concentrated in terrestrial and marine organisms by factors ranging from a few hundred to several hundred thousand times the concentrations in the surrounding environment.

The major sources of mercury are industrial processes and biocides. Although the use of mercury in biocides is relatively small, it is a direct input into the environment. There are many other possible routes but little data exists about the rates of release to the environment.

Recommendations

1. Pesticidal and biocidal uses of mercury should continue to be drastically curtailed, particularly where safer less persistent substitutes can be used.

2. Industrial wastes and emissions of mercury should be controlled and recovered to the greatest extent possible, using available control and recovery methods.

3. World production, uses, and waste products should be carefully monitored.

Oil in the ocean

Discussion of Findings

It is likely that up to 1.5 million tons of oil are introduced into the oceans every year through ocean shipping, offshore drilling, and accidents. In addition, as much as two to three times this amount could eventually be introduced into waterways and eventually the oceans as a result of emission and wasteful practices on land.

Very little is known about the effects of oil in the oceans on marine life. Present results are conflicting. The effects of one oil spill which have been carefully observed indicate severe damage to marine organisms. Observations of other spills have not shown such a marked degree of damage. Different kinds of damage have been observed for different spills.

Potential effects include: direct kill of organisms through coating, asphyxiation, or contact poisoning; direct kill through exposure to the water soluble toxic components of oil; destruction of the food sources of organisms; incorporation of sub-lethal amounts of oil and oil products into organisms, resulting in reduced resistance to infection and other stresses, or in reproductive successes.

Recommendation

1. Much more extensive research is required to determine the effect of oil in the ocean. Future oil spills should be systematically studied beginning immediately after they occur so that a comprehensive analysis of the effects can be developed over time. Sites of previous spills should be reexamined to study the effects in sediments.

2. Political and legal possibilities should be explored which would accomplish the conversion to Load-On-Top techniques by that 20% of the world's tankers which do not use this method.

3. The possibility of recycling used oil should be explored.

Nutrients

Discussions of Findings

Eutrophication of waters through overfertilization (principally with nitrogen and phosphorus) produces an excess of organic matter which decomposes removing oxygen and killing the fish. Estuaries are increasingly being eutrophied. Pollution of in-shore regions eliminates the nursery grounds of fish including many commercial species which inhabit the oceans.

Most (probably between 60% and 70%) of the phosphorus causing over-enrichment of water bodies comes from municipal wastes. In the U.S. about 75% of the total phosphorus in these waters comes from detergents. Urban and rural land runoff contributes the remainder (approximately 30% to 40%). A major contributor is runoff from feedlots, manured lands, and eroding soil.

Trends in both nutrient use and loss are rising. Fertilizer consumption is expected to increase greatly in both developed and developing countries in the next decade increasing the nutrient runoff from agricultural lands. Concentration of animal production will continue with the result that losses of nutrients from feedlot runoff will quadruple by 2000. Urban waste production is expected to quadruple by 2000 meaning greater potential loss of nutrients directly into coastal waters.

Recommendations

1. Develop technology and encourage its application to reclaim and recycle nutrients in areas of high concentrations, such as sewage treatment plants and feedlots.

2. Avoid use of nutrients in products which are discharged in large quantities into air or water. For example, reformulate detergents to eliminate or reduce waste phosphates, but be certain the substitutes degrade and do not poison the ecosystem.

3. Effect, through appropriate institutions, control of nutrient discharges in natural regions such as river basins, estuaries, and coastal oceans.

Wastes from nuclear energy

It has taken our full efforts to probe in some depth a few qestions. We decided deliberately to omit consideration of others of great importance. One of these is the problem of perpetual management of the

large quantities of radioactive wastes which are by-products of nuclear power.

No other environmental pollutant has been so carefully monitored and contained. Yet as we look back on our intense examination of the effects of the products of fossil fuel combustion we have become aware of our neglect of a different class of pollutants which will grow greatly in quantity in the next 30 years.

We call to the attention of one of the sponsors of SCEP, the AEC, our decision to omit this item from our agenda and our concern about the subject.

Recommendation

That an independent, intensive, multidisciplinary study be made of the trade-offs in national energy policy between fossil fuel and nuclear sources, with a special focus on problems of safe management of the radioactive by-products of nuclear energy leading to recommendations concerning the content and scale and urgency of needed programs.

GENERAL CONCLUSIONS AND PRINCIPLES

In studying the specific problems outlined above, SCEP reaffirmed the conclusions and principles which underlie the ecological, social, and political implications of most critical environmental problems. Efforts to examine or ameliorate the effects of these problems should include explicit recognition of the considerations.

Ecological considerations

An estimate is needed for the ecological demand, a summation of all of man's demands upon the environment, such as the extraction of resources and the return of waste. Such demand-producing activities as agriculture, mining, and industry have global annual rates of increase of 3, 5, and 7% respectively. An integrated rate of increase is estimated to lie between 5 and 6% per year, in comparison with a population rate of annual increase of only 2%.

Natural ecosystems still provide us many free services. At least 99% of the potential pests of man are held to very low densities by natural control. Insects pollinate most of the vegetables, fruits, berries, and flowers, whether they be wild or cultivated. Commercial fish are produced almost entirely in natural ecosystems. Vegetation reduces floods, prevents erosion, and air-conditions the landscape. Fungi and minute soil animals work jointly on plant debris and weathered rocks to produce soil. Natural ecosystems cycle matter through green plants, animals and decomposers, eliminating wastes. Organisms regulate the amount of nitrates, ammonia, and methane in the environment. On a geological time scale, life regulates the amount of carbon dioxide and oxygen in the atmosphere.

The functions of ecological systems connect the impact of man upon the environment with the services supplied by nature. Ecological impairment eventually leads to a loss of such services. The health and vigor of ecological systems are easily reduced if (1) general and widespread damage occurs to the predators, (2) substantial numbers of species are lost, or (3) general biological activity is depressed. Most pollutants that affect life have some effect on all three processes.

To prevent further deterioration of the biosphere, and to repair some of the present damage, action is urgently needed. In addition to a variety of specific recommendations such as those accompanying the specific problem areas, *SCEP recommends* that the following activities be developed in national and international programs:

A. Technology Assessment: An information center that centralizes data on products of industry and agriculture, especially new products and new increases in production. Such a center will also identify potentially hazardous materials, and promote research on their toxicity and persistence in nature.

B. Environmental Assessment: An information center that centralizes data on the distributions of pollutants, and on the health and pollution loads of organisms.

C. Problem Evaluation: A think-center to evaluate problems on the basis of the above information, to determine the urgency for action, and to identify options.

D. Public Education: A service center to present the results of the above in simple form, and to distribute such materials to educational institutions and the new media.

Social and political changes

SCEP has concentrated on a few global problems. The main thrust of our recommendations is to gather more information about pollution of the planet. This information would improve our understanding of the impact of man's activities on the earth's resources of air, water and those on land, that is, the Ecological Demand of man's activities. Relevant data on critical global problems is very poor and this seriously limits our understanding of their meaning.

We have tried to estimate scales of world activities to the year 2000. In very few areas is there reliable data for projections. Indeed much data about world activities today in areas of importance to this Study have been found fragmentary and contradictory. Far better estimates well into the 21st Century are needed in order to assess the expected impact of man on the world ecological system to give us time to take action to avoid crisis or catastrophe.

We have looked beyond the gathering of data and its interpretation to the question of how remedial action may be taken. Unless information leads to action to abate or control pollution it is largely useless.

Earlier in our history, the prevailing value system assigned an overriding priority to the first order effects of applied science and technology: the goods and services produced. We took the side effects—pollution—in stride. A shift in values appears to be under way that assigns a much higher priority than before to the control of the side effects. This does not necessarily impart a reduced interest in production and consumption. When the crunch comes, when the implications of remedial action and the choices that must be made become clear—will we have second thoughts? Or will we bog down in confusion and frustration? Will we hold to our course, insisting that our society make a more thorough and imaginative use of its resources of science and technology, its organizational skills, and its financial resources in an effort to achieve an optimal balance between the production we need and the side effects which we must bring under control? We hope the answer to these questions is in the affirmative.

The problem of action is compounded because contributions to global pollution come from activities in countries all over the world. Action to control depends upon agreed data on amounts of pollution and their harmful effects. Actual control will depend upon national action by governments. It is not enough that the U.S. exercise control. If others pollute our common resources of the air and oceans the perils remain. This challenge is before the United Nations Conference on Man and the Environment in Stockholm in 1972. We hope that the SCEP Reports will form useful inputs to that Conference and that the SCEP Study model may be applied to other critical problems of the environment.

JOHN L. LOEB, "THE QUIET PHILANTHROPIST"

Mr. RIBICOFF. Mr. President, I recently came across a profile of John L. Loeb, of New York City. At a time when our universities are hard put to make ends meet, it is good to find a man who can serve as a national example.

Harvard University and many other worthwhile causes have been fortunate in having the services and philosophy of John L. Loeb used in their behalf.

Mr. Loeb is called The Quiet Philanthropist for good reason. While his contributions are significant, many are given anonymously. As he states:

> It's a great satisfaction to give during one's lifetime, to see one's money create something . . . you can't go to another fellow and ask him for money unless you yourself have given generously.

John Loeb and his wife, Frances, have indeed given generously.

This profile, taken from University Resources of Harvard, could well point the way for other men of means. Our Nation's institutions need leadership and foresight. The John L. Loeb example is one that must be followed if our institutions are to remain constructive, meaningful, and in a position to continue serving our Nation.

I ask unanimous consent that the profile be printed in the RECORD.

There being no objection, the profile was ordered to be printed in the RECORD, as follows:

"THE QUIET PHILANTHROPIST," WILL HEAD SIGNIFICANT HARVARD CAMPAIGN

Two years ago John L. Loeb '24 led Harvard's Graduate School of Design to the successful completion of an $11.6 million capital campaign. The drive more than doubled the School's endowment and set a record for capital funds raised by any school devoted to the improvement of the design environment—the spaces, the buildings, the urban areas—in which men live. Mr. Loeb and his wife, Frances, who is New York City's Commissioner to the United Nations, contributed $2 million to the Design fund. Part of their gift funded the Loeb Fellowships in Advanced Environmental Studies for young professionals concerned with urban problems, ecology, design programming and common housing design. Another part established the library within the new School of Design building, which is to be named for Frances L. Loeb. It will house one of the world's finest collections in city and regional planning, landscape architecture, architecture and urban design.

Mr. Loeb agreed to become National Chairman of the Design drive in 1966, a time when the urban crisis was not a major concern of American philanthropy. To launch the campaign he supervised the design and writing of a brochure which dramatically set forth the crisis of our cities.

Now Mr. Loeb has agreed to put Harvard first again. With many other institutions requesting his services, he has agreed to undertake what Harvard fund raisers call "the biggest challenge of them all." He will serve as General Chairman of the $11.4 million campaign, "To Finish a Job for Harvard." Mr. Loeb expects to reach this goal by June, 1971, thereby achieving the most immediate goals of the buildings for Harvard Science, for the Harvard College Library, and for International Studies.

"What he is undertaking will surpass the rate of capital growth called for in the $82.5 million Program for Harvard College," said H. Irving Pratt '26, Chairman of A Program for Science, "and he does not have the luxury of time."

Mr. Loeb agreed to take on this task because of "my devotion to Nathan Pusey," whom he first got to know when he served

as National Vice-Chairman of A Program for Harvard College.

"We ought to rally for him now as a tribute to his leadership in American education as well as to help Harvard College," said Mr. Loeb. "With the total blessing of the Governing Boards, I'm confident we will succeed. Also the ground-work has been magnificently laid by Irving Pratt, Douglas Dillon and Mots Copeland, who have been working on the three campaigns."

This new post as General Chairman will take fully one-third to one-half of Mr. Loeb's time. He has established a New York campaign office at 42 Wall Street which is now fully staffed. Howard Brooks of the Harvard Development Office and Ann Kvaraceus will be on hand during the week. The New York office was in full operation one week after Mr. Loeb accepted his assignment.

As philanthropic leaders, Mr. Loeb and his wife believe in working for the causes they support. The Loeb's charitable interests are broad and they have made personal gifts and commitments running well into the millions of dollars. In New York City they have supported medicine, education, architecture, and the fine arts.

To Harvard Mr. Loeb gave a Drama Center, considered to be the most modern and well-equipped university theater in America. He created one of the College's largest endowed scholarship funds. He established a University professorship in honor of his father, Carl M. Loeb. At the Business School, he established the Loeb, Rhoades Fellowship Fund for students concentrating in finance; he also gave the School the Anderson Building as well. In conjunction with the Adele and Arthur Lehman Foundation, Mr. Loeb established the Adele Lehman Professorship in Medicine at the Harvard Medical School.

Of his gifts to Harvard, Mr. Loeb reflects that he derived the greatest satisfaction from the Loeb Drama Center, "because it makes such a visual statement. I gave the theater during the Program for Harvard College because not many people were giving to it at the time. I also thought it would dramatize the needs of the entire Program."

Termed by members of the nation's press "a quiet philanthropist" because so many of his contributions are given anonymously, Mr. Loeb has an attitude toward charity that is characteristically modest. "I hate to say 'no' to anyone," he said. "To me it's a great satisfaction to give during one's lifetime, to see one's money create something."

"I believe that you can't go to another fellow and ask him for money unless you yourself have given generously," says Mr. Loeb. "It makes your case much more convincing if you yourself are committed."

At sixty-eight, Mr. Loeb is a senior partner of Loeb, Rhoades, the investment brokerage firm he and his father founded in 1931. Recently he has been called "a courageous and forceful leader" on many of the larger issues facing Wall Street.

Where, in his view, the Exchange has needed improvement, he has pressed for it. In 1963, as chairman of a NYSE Special Committee on Expense Recovery, he was instrumental in establishing a protective fund for the protection of clients of member firms. This special fund came into being after the failure of one member firm; it is considered by investment bankers to be a flexible and creative solution for the insurance of clients.

At Harvard, Mr. Loeb's assignments have been varied and, in each case, productive. He served as a member of the Board of Overseers from 1962 to 1968, with two of those years on the Executive Committee. Over the years, he has served on many Visiting Committees. Today he serves on the Committees to Visit the Graduate School of Business Administration and the School of Design. He also serves on the Overseers' Committee for University Resources, and on the University's Corporate Relations Committee.

As a fund raiser, classmates say, he both responds to and creates challenges. For example, a few months from the end of A Program for Harvard College, when the drive was dragging slightly, he created "the $100,000 Club." The idea stimulated the achievement of the remaining $5 million and helped put the Program over the top. Thirty of the 32 concluding gifts came from people who had given before, many of whom responded to Mr. Loeb's idea.

Later, for his 45th Class Reunion gift following the completion of the Program, he and another classmate offered a matching gift arrangement which increased the Class total by $100,000.

As to the present effort "to finish a job," Mr. Loeb believes that "it's essential to clear the decks for the new President and to finish for Nathan Pusey something he started and believed in. Our approach to donors must be, as I see it, to urge a gift to Harvard at a very important time in her history."

THE DEATH OF WHITNEY YOUNG

Mr. BAYH. Mr. President, the death of Whitney Young is not only a great loss to his family but indeed a great loss to the Nation. At a time when the emotions of men often overshadow forces of reason, Whitney Young persevered in the role of social statesman. He was of the firm opinion that the "cost of liberty is less than the price of repression, and that the cost of economic justice is but a fraction of the price of racial privilege and exploitation."

It was my pleasure to have worked with Whitney Young over the years in a variety of programs to secure social and economic justice for all citizens of our Nation, including his dream of a domestic Marshall plan. His leadership of the Urban League was imaginative and effective and he died believing that a new American coalition could be forged to, in his words, transcend narrow hate and exploitation—"a coalition of the decent, the just, the good in our society."

Whitney Young believed in a "coalition of builders versus destroyers; of decency versus hate; of unity versus division; of courage versus cowardice; of hope versus despair." And he believed that all of us, black and white, need each other. I am saddened by his loss and join in his belief that—

We will either work together in a New American Coalition to build an open society—a hard, difficult task that will mean occasional pinpricks and annoyances—or we will all go down the drain of history—frozen by hate and injustice.

MEDIA COMMENTARY ON SOUTH VIETNAMESE OPERATIONS IN LAOS

Mr. ALLOTT. Mr. President, in the belief that, where some critics of the President are concerned, those who learn from the past are still destined to repeat old mistakes, I invite the attention of Senators to a most interesting column by Mr. Joseph Alsop, published in today's Washington Post.

Mr. Alsop points out that much of the media commentary on the recent South Vietnamese operations in Laos bears a striking resemblance to much of the media commentary in the period immediately following the Communist ill-fated Tet offensive in 1968. In addition, some of the current gloomy commentary on the Laos operation sounds like an echo of the commentary which followed last year's successful allied operations against the sanctuaries in Cambodia.

As Mr. Alsop says, it is now clear that the Communists made a disastrous blunder when they launched the Tet offensive in 1968, and it is now clear that many commentators were wrong in their initial interpretation of the Tet offensive as a victory for the Communists. It was nothing of the sort.

And, as Mr. Alsop says, it is now clear that the operation against the Cambodian sanctuaries was successful in facilitating American troop withdrawals and reducing American casualties.

Mr. President, so that all Senators can examine Mr. Alsop's reasoned column, I ask unanimous consent that it be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

[From the Washington Post, Mar. 23, 1971]

THE PAYOFF IN LAOS

(By Joseph Alsop)

The Senators and analysts who will now become extremely vocal about the withdrawal from Laos, will do well to remember their own follies at the time of the Tet offensive, and after the U.S. troops finished their job in Cambodia last year.

By now, the same publications that portrayed Tet as an unmitigated disaster for the United States and its allies, have been forced to admit obscurely, but in plain language, that Tet was instead a dreadful disaster for Hanoi. The Cambodian venture was also portrayed as a sad failure. But by now it has just about ended the war in the whole southern, most populous half of South Vietnam.

These reminders are necessary because assessment of the result of the Laos operation is bound to be controversial. Optimism about the result is likely to be greeted with shock and surprise.

Yet optimism is in order. Suppose a man tries to cut his bitter enemy's throat, and instead only manages to break both his enemy's legs. In that case, he has not attained its maximum objective, but he has still succeeded in hurting his enemy pretty critically. And since war is always an ugly business, this is the best analogy for the Laos result.

The maximum objective was to cut the Laos trails, which are Hanoi's sole remaining supply line to the south, and to keep them cut throughout the whole dry season. That objective was not attained, because of Hanoi's cold-blooded willingness to expend almost limitless numbers of North Vietnamese soldiers to keep the trails partly open.

But quite aside from the fearful hemorrhage of North Vietnamese military manpower, the damage done to Hanoi has been very grave, and can even prove mortal. The right way to compute this damage is to begin at the beginning, with the supply requirement that the Laos trails are supposed to meet.

Until last year, only about one half of the total supply needed for Hanoi's war in the south had to be carried over the Laos trails. The other half of all that Hanoi's troops in the south needed was then provided through Cambodia. It came in at the port of Kompong Som, then Sihanoukville; or it was simply purchased on the Cambodian open market.

In addition to the American analysts' grave underestimate of Sihanoukville's importance to Hanoi, it is now realized that the Cambodian open-market purchases were also

grossly underestimated. These not only provided all the rations and other material requirements for the four North Vietnamese divisions in Cambodia. They also provided the direly needed rations for the tens of thousands of North Vietnamese troops on the Laos trails, in a region where there is no locally produced food.

This year, therefore, with the Cambodian source cut off, Hanoi needed a through-put over the Laos trails in the dry season that would be at least twice the through-put achieved in last year's dry season. The desperateness of the need was signalled when Hanoi left in place throughout the 1970 wet season the whole huge engineering and transport apparatus that makes the Laos trails work. Previously these troops had always been called home when the rains came and made the trails impassible.

In these conditions, so painful for Hanoi, the Laos operation did three things of great importance, Albeit temporarily, it cut the Laos trails for a considerable period. It thoroughly disrupted the trail-management apparatus. And it also forced Hanoi to expend, in the furious fighting of the last weeks, the bulk of the supply already in the pipeline that had been originally destined for Hanoi's units further to the south.

By mid-March of this year, Hanoi's through-put on the Laos trails was still only about 20 per cent of the through-put in the same period of last year's dry season. After the South Vietnamese withdrawal, great efforts will surely be made to push more supply to the south. But it is hardly possible, after all that has happened, for this year's through-put to go above 50 per cent of the 1970 total.

The requirement, however, is for 200 per cent of the 1970 total. In sum, Hanoi's forces in Cambodia and threatening South Vietnam are going to have to get along, from May through next December, with about one quarter of their needed supplies. They have never got more than their minimum needs, moreover. And with only one quarter of their minimum needs, their situation is obviously likely to be very grave indeed.

These are the reasons the Laos operation should have much the same fruitful aftermath as the Cambodian venture, but on a far wider and bigger scale.

FACING UP TO AMERICA'S HEALTH CRISIS: TWO ALTERNATIVES

Mr. KENNEDY. Mr. President, in an article in Newsday last week, Mr. David Zinman published interviews by Secretary of Health, Education and Welfare Elliot Richardson and me on our respective proposals to ease the Nation's health crisis. Mr. Zinman's questions bring out a number of the most important differences between the programs, especially with respect to the impact in very human terms on the average American family.

I believe that Mr. Zinman's article will be of interest to all of us, and I ask unanimous consent that it may be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

[From Newsday, Mar. 16, 1971]

FACING UP TO AMERICA'S HEALTH-CARE CRISIS: TWO ALTERNATIVES

(By David Zinman)

Two years ago, President Nixon said America's medical system faced a "massive crisis." Now, he says that crisis has deepened.

It is a crisis with two dimensions—rising costs and declining services. Since 1960, medical costs have gone up twice as fast as the cost of living. For many Americans, going to the hospital could mean going broke. Meanwhile, the doctor shortage is so severe that the quality of medicine ranges widely depending on income and geography. In some areas of New York City, for example, there is one private doctor for every 200 persons. But in other areas, the ratio is one to 12,000. And so for some in ghetto neighborhoods or in remote rural areas, care is simply not available.

To meet the crisis, nearly two dozen bills have been submitted to Congress. The major ones come from President Nixon and Sen. Edward Kennedy (D-Mass.). Their difference is the difference between a tuneup and an overhaul. Nixon's plan, less radical but purported to be less expensive, would bring repairs to the existing system of private health insurance. Kennedy's plan, more far-reaching and more controversial, would restructure medical care by putting all health insurance under the federal government.

The months ahead promise a full-scale debate. Some are saying the plans will be the major domestic issue of the 1972 presidential campaign. The certainty is they will affect the lives of every American. With that in mind, Newsday got an in-depth explanation of the plans from Kennedy and Elliot L. Richardson, Secretary of Health, Education, and Welfare and chief spokesman for the President's plan.

Q. If I were a Long Island worker without any health insurance and asked you what your health bill would mean to me and my family, what would you tell me?

KENNEDY. I'd tell you that you were covered by National Health Insurance if the Congress were to pass S. 3 (Senate Bill No. 3) and the President were to sign it. You'd have comprehensive coverage of your doctor and hospital bills. There would be no deductibles, no co-insurance, no waiting time (for such things as maternity eligibility) and no paper work (for the patient). And you'd be entitled to quality health care.

RICHARDSON. I'd say that you would get insurance covering the costs of outpatient (out of hospital) service, medical care, in-hospital care. And that if anybody in your family had bills in a year of $5,000 or over, the insurance program would pay all costs up to $50,000.

Q. Suppose a worker already had private health insurance through his job; would your plan deduct more or less from his paycheck?

KENNEDY. Well, our plan would deduct less money and provide more comprehensive health benefits than, I would say, are covered for 85 per cent of the working people in this country . . .

RICHARDSON. You'd have to know the coverage of the plan he was under. The required insurance . . . would probably cover more outpatient services . . . than his present policy. . . . Of course, the administration's program does not require the employe, the worker, to pay anything. It just says that the worker cannot be required to pay more than 35 per cent in the first two and a half years or more than one-quarter of the cost after that.

Q. Could you explain what "deductible" and "co-insurance" mean and how they work in your plan?

KENNEDY. Those do not figure in my plan.

RICHARDSON. It (deductible) means that he (the worker) has to pay $100 out of his own pocket before the insurance takes over for outpatient medical services. It means he has to pay . . . room and board costs of his first two days (in hospital). And (co-insurance means he has to pay) 25 per cent of bills up to $5,000. Over $5,000 as I said earlier, and up to $50,000, he wouldn't have to pay anything more. . . . The purpose (of deductible and co-insurance features) is to hold down total premium cost . . . The other reason (for their inclusion) is that if a worker and his family aren't aware of paying anything toward the cost of health care . . . there is a risk that the system will be overused. And this, of course, would have the effect, and has had the effect already, of forcing up costs.

Q. What per cent of the nation's total annual medical-care costs, that is, all personal health bills, do you estimate your plan would cover?

KENNEDY. Seventy per cent.

RICHARDSON. We estimate 45 to 50 per cent. It doesn't cover, of course, the amounts that are covered by the deductible and the co-insurance. And it doesn't cover several forms of care that are not part of the policy—psychiatric care, prescription drugs, or dental care.

Q. Would your plan cover expensive, life-saving therapy that could bankrupt a family? Like heart transplant or long-term treatment on an artificial kidney?

KENNEDY. There would be total medical coverage for those extremely costly and lengthy procedures which would save families, most families, from complete financial ruin. . . . There's no limitation in the program.

RICHARDSON. It would cover these to the extent of $50,000 catastrophic coverage. . . . (Beyond $50,000) there would have to be brought to bear some form of help to the family. Ordinarily, there would be no means of helping them through the state, community, or private philanthropy if his own fund won't. . . . When you have in mind that major medical expense coverage now seldom goes above $10,000 and only 40 per cent of people who have any health insurance have major medical coverage at all, we realize that the increase in catastrophic coverage to $50,000 . . . is a big stride in increased protection.

Q. What do you estimate your plan would cost the first year—fiscal 1974?

KENNEDY. Approximately $58 billion. But this is not new money. These are funds that are all being expended by individuals and government for health services that are ineffective and inadequate. So it really isn't new money. It's changing the financing mechanism to insure that the inefficient will be eliminated.

RICHARDSON. We estimate that the added cost to the employers . . . would be about $7 billion. (However, the total of all federal and private money in the program would run $59 billion, according to Ruth Hanft, HEW's director of health finance planning) . . . We estimate the cost of the Kennedy plan the first year at about $77 billion. There are two reasons for the big difference (in the cost of the two plans). One is that there are no deductibles or co-insurance under the Kennedy proposal. The coverage is somewhat broader, besides, so that the premium costs are higher in the first place. Second, the Kennedy proposal uses government money to substitute for all health insurance payments now being made under collective bargaining or employe group plans.

Q. Prepaid group insurance is one of the key ways both the Nixon and Kennedy plans would reorganize the delivery of medical services. Prepayment lets a worker pay a flat yearly fee for all health care. He pays when he is well and best able to afford it rather than when he's sick and least able to. And so, proponents say, doctors have a stronger incentive to keep patients healthy. Group care also puts the doctors in team setups, which reportedly can treat twice as many people as a doctor practicing alone. If prepaid group practice is the heart of your plan, what incentive do you offer doctors to get into these prepaid groups?

KENNEDY. (We) would allocate grants to various medical groups who are innovating, creating new kinds of delivery systems more efficiently and more effectively . . . Secondly, what you would hope to be able to achieve is a competition between health delivery systems. For example, (there could be) a group practice competing for providing comprehensive health services to a community against a health maintenance organization who wants to provide comprehensive health facilities. And both of them saying, "We'll provide comprehensive health services to the people in this community at such and such a rate." They will be competing (for the contract) against each other. And the people who will benefit from that will be the consumers . . .

RICHARDSON. The principal incentive that we propose has to do with the provision of start-out costs and subsidies for the coverage of low-income families under the prepaid plan. As far as individual doctors are concerned, we hope to encourage increasing numbers to want to practice in this kind of prepaid plan—or what we call health maintenance organizations—through, for one thing, providing federal funds to medical schools and teaching hospitals to train doctors who are working in a health maintenance organization setting. We hope that this will have the effect, as time goes on, of drawing more doctors into this form of practice.

Q. Suppose doctors won't accept prepaid group practice. Suppose they want to keep practicing on a traditional fee-for-service basis. Then what?

KENNEDY. I don't think the American people are going to stand for it. Because as a result of the present system, the American people are not getting the kind of quality health care that they are entitled to. The mother can't get a doctor. When she calls a doctor's office, she talks to an answering service. If she ever sees a doctor, usually it's the wrong doctor for the sickness of the child. People are tired of waiting in waiting rooms for hours. They're tired of the inefficiencies of the present system. And I think the people are entitled to quality health care. And we have to attempt to devise a system—hopefully with the support and cooperation of the health community—that will do the job.

RICHARDSON. We'll simply have to cross that bridge when we come to it. It's fair to say that this is a key problem for any plan to improve the quality and accessibility of health care in the U.S. and to hold down costs. The only other important feature of our plan that would bear on this is the provision for the forgiveness of loans to medical students—amounts they borrow while they're going through their medical education. If they practice in a scarcity area for four years . . . we hope that the combination of extending health maintenance organizations into low-income areas and the provision of loan forgiveness for doctors who practice in scarcity areas will result in a substantial number of those doctors working for the health maintenance organizations.

Q. How would you keep an eye on hospital and medical costs and see that people are, in fact, getting quality care?

KENNEDY. We'd establish peer groups to insure that and have consumer representation—true consumer representation. Not just the wives or husbands of those who are involved in the health profession who serve on so many of these boards at the present time. But real consumer peer review of various health programs. The consumer has a strong voice in our legislation in terms in quality and of cost control. And hopefully, we can do something about it.

RICHARDSON. This is a very important question . . . We think two things need to be done under our approach. One is to provide federal standards of coverage for the administration to bring all health insurance policies under federal regulation for the first time. The second is to create under the regulatory legislation a system of community-based review of the use of health services and the quality of health services. This would require setting up groups in each community—representing both providers and consumers—to monitor the demands being made on the health-care system and to maintain standards of quality . . . We are concerned that unless we include consumers in this process, there won't be the same critical review from the standpoint of the consumers' interest.

Q. Secretary Richardson has criticized your plan, saying it would ignore the best of the present health system and, instead, start all over with a single post office-like nationalized system. Would you have any comment about this evaluation?

KENNEDY. I'd say that I believe the American people are satisfied with the Social Security system. Perhaps the benefits aren't high enough—and they're not. (But) I think they've been satisfied generally with the Medicare system, although the benefits haven't been, again, sufficient. And I think they'll be satisfied with the health security system as they are with these.

Q. Sen. Kennedy has criticized your plan as being a forced subsidy of the private health insurance companies who have, by and large, been part of the problem of the health crisis. The President says we should build on the strengths of the existing system. But by financing health insurance through private insurance companies, wouldn't we be pumping more money into one of the system's weakest areas?

RICHARDSON. To answer that question requires identifying what the weaknesses of the private insurance systems are. By and large the problem has not been the problem of excessive profits or price-gouging. It has been that the private insurance system has not focused enough attention . . . on outpatient, diagnostic and preventive services. Because most health insurance has paid only for hospital bills, the result has been to bring about more use of hospitals and therefore higher costs of health care than we think have been necessary or desirable. And so the principal need in correcting weaknesses in the system is to shift priorities from hospital care to outpatient diagnostic care . . . To correct the weakness in the existing system, what you have to do is try to correct it through the emphasis that is placed in the combination of benefits provided. In any case, we think that the most effective and economical way of prepaying the cost of health care is through prepayment under a group practice plan or health maintenance organization. And we are requiring under all of the legislation we are proposing that the worker have the option of having the value of his coverage applied to the cost of membership in a health maintenance organization which will, in itself, mean greater emphasis on early diagnosis and prevention.

Q. What is your chief criticism of the President's plan?

KENNEDY. I have, perhaps, three. First, I think it's a patch-up job to meet what is a real genuine health crisis. We're just putting Band-Aids on the existing program. Secondly, the program is not universal. It's not comprehensive. It's regressive in nature. You still retain the deductibles. You still retain the co-insurance. You still retain the extraordinary kinds of paper work. . . . And it just will not do the kind of job in providing quality health care . . . Now if he (a worker) makes $3,600 and he gets sick, say, and he has to go down to the hospital to get an appendix out, he'll have to pay the $100 deductible. And he'll be required to pay the first two days in the hospital for his room. This could amount to a minimum of say $250. Say his wife gets sick later on in the year and she has to go to the hospital. He'll still have to pay $100 deductible in addition and the first two days of hospitalization for his wife, which might be another $250. Say his child gets sick and has to go to the hospital for a couple of days. For the third time he has to pay $100 deductible and the two days that he would be in the hospital, as well as 25 per cent of the total medical expenses that he, his wife or his child will incur in the hospital or afterward . . . Under the legislation which I've introduced, on each one of those occasions he would have all of his medical expenses covered. But the administration . . . requires these kinds of deductibles for individuals. And it makes no distinction after you reach the $3,600 figure whether you're making $3,600 or $30,000. The worker, say, whether he's making $8,000 or $10,000 is still going to have those deductibles as well as the person who is making $50,000. And this, therefore, is regressive. It's requiring the working people of this country to bear an additional kind of health burden at an extraordinary expense.

RICHARDSON. Our chief criticism of the Kennedy plan is that it unnecessarily substitutes the complete takeover by the federal government of all financing of health care through a heavy increase of taxes of both employer and employe. In so doing, the Kennedy proposal displaces the collective bargaining process. It displaces all existing private arrangements and will, in the long run, we think, tend to increase costs by eliminating competition and experimentation . . . It would (also) have the effect of creating an enormous federal bureaucracy to administer health benefits that are now being handled through private contracts and voluntary arrangements.

Q. How much support is lined up for your bill and what are its chances of passage by this Congress?

KENNEDY. We've got 25 members of Congress as co-sponsors. It's bipartisan. It's representative in terms of geography and philosophy. And we've got strong support for that program. I'm hopeful that we can achieve it in this Congress.

RICHARDSON. It's a little early still to tell. Our proposals, which need to be seen as parts of an interrelated whole, have met with a favorable response on the part of many members of Congress. Hearings won't begin in the Ways and Means Committee in the House until after they've dealt with Social Security and welfare reform and perhaps also general revenue sharing. In the meanwhile, our bills are being carefully reviewed, not only in the Congress, but by a lot of outside groups and individuals . . . I would judge from the reactions to date that the chances are good that when Congress does act, it will be along lines consistent with the administration's proposals . . . I would think it's very likely a bill might pass prior to the 1972 presidential election.

HOW THEY COMPARE

Nixon plan

1. Employer must subscribe to basic health insurance plan. But it's up to each worker if he wants to buy coverage.

2. Plan pays 45 to 50 per cent of bills.

3. Private firms would continue providing coverage. But government sets minimum standards—saying how much insurance pays and for what.

4. Financed mainly by employer and workers. Employer would pay three-quarters of cost. Employe would pay one-quarter.

5. Each person pays first $100 of medical bills and first two days room and board in hospital. After that, family pays 25 per cent of health costs up to $5,000. Thereafter, government pays all costs up to $50,000.

6. Omits drugs (unless in hospital), dental, psychiatric, nursing home and long-term mental care.

7. First-year cost estimated at $59 billion

(for fiscal 1974), with $22 billion from private insurance. Actual layout of new federal money—$3.2 billion.

Kennedy plan

1. Employer must subscribe. Worker must take out insurance.

2. Plan pays 70 percent of bills.

3. Government sets standards and provides coverage. Private firms would either go out of business or pick up remaining 30 per cent of uncovered medical expenses.

4. Financed from general revenues and payroll tax, like Social Security. Employer pays 3.5 per cent. Employe pays one per cent.

5. No deductibles or co-insurance features. No cutoffs on most medical services. (See No. 6 for exceptions.)

6. Some limitation on drugs, dental, psychiatric, nursing home and long-term mental care.

7. First-year cost estimated at $58 billion. But HEW estimates it at $77 billion. Actual layout of new federal money—$46 billion.

HOW THE PLANS WOULD WORK

1. George X., a Smithtown shoemaker, and his wife and two children get the flu. Dr. John Jones examines them all at his offices and writes drug prescriptions for them. The family's doctor bill comes to $40. Their drug bill is $30. Total $70. The Kennedy plan would pay $40. The Nixon plan would pay nothing.

2. Ralph W., a Uniondale aircraft plant worker, slips on the way to his job and injures this back. He has to be hospitalized for 10 days. When he gets home, a physical therapist works with him for a month. His hospital bill is $1,000, doctor bill $300, therapist bill $500. Total medical costs $1,800. Kennedy plan pays $1,800. Nixon plan, $1,200.

3. Henry G. and his wife run a neighborhood grocery in Long Beach. One day, Henry suffers a heart attack and later a stroke. He is hospitalized four months and runs up a $16,900 bill (hospital $12,000 and doctor $4,900). When he is discharged, he is partially paralyzed. Mrs. G. gets a nurse's aide to attend him during the day while she runs the store. The aide's fee for the next eight months runs to $7,800. Meanwhile routine doctor bills for Mrs. Green and her two children run $100 each, totaling $300. Total family medical bill—$25,000. Kennedy plan pays $25,000. Nixon plan pays $23,525.

REVENUE SHARING AND THE NATURE OF OUR FEDERAL SYSTEM

Mr. BAKER. Mr. President, I read with great interest an article published in the New York Times of March 21 about the views of Wisconsin Gov. Patrick J. Lucey on the nature of our federal system. Although the article indicates that Governor Lucey might prefer a system of tax credits to the general revenue-sharing proposal of the President (S. 680), he is emphatic on the point that some such move is urgently needed.

I was particularly pleased to read of Governor Lucey's standing up for the capacity and integrity of State and local government. I share his confidence in locally elected leaders, and some system of sharing Federal revenues with State and local governments would be certain to strengthen the quality of government at that level.

I know that Senators will be as interested in this article as I was. I ask unanimous consent that it be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

WISCONSIN'S CHIEF BREAKS A PATTERN—LUCEY, DEMOCRAT, STRESSES STATE, NOT FEDERAL, ROLE

(By Anthony Lewis)

MADISON, WIS., March 17.—For northern Democratic politicians it has been traditional to support Federal as against state programs. The Federal Government had a more liberal outlook, they felt, and the necessary national authority.

How much that historic attitude is changing is illustrated by the new Democratic Governor of Wisconsin, Patrick J. Lucey. He is a liberal activist on social and other issues—and an emerging crusader for state responsibility.

In an interview this week, for example, Governor Lucey said he saw a philosophical advantage in the Federal Government's sharing its revenue with the states to assist on the welfare problem rather than taking over the whole function itself.

"When I'm working over state programs to make them more efficient and economical," he said, "and I come to one that is funded by the Federal Government, I just lose my incentive to take a hard look. I feel that even after a brief time in office."

PREFERS NIXON PLAN

This is one reason Mr. Lucey inclines at this point to prefer President Nixon's revenue-sharing proposal to the alternative of a total Federal takeover of welfare spending. The latter proposal, perhaps ironically, is favored by the most powerful Southern Democrat in Washington, Representative Wilbur D. Mills of Arkansas, chairman of the House Ways and Means Committee.

But money is also a motive for Mr. Lucey on the revenue-sharing issue. Like other Governors, he faces a fiscal crisis, and he thinks Wisconsin would do somewhat better under the Nixon plan than under the Mills approach.

The reason is that a Federal assumption of welfare costs would give the greatest help to those states facing the most extreme welfare burden, such as New York. On a strict per capita basis, Wisconsin would get more from revenue sharing, and some extra money under the Nixon plan for rewarding a good record of state performance.

FINDS SCRUTINY CLOSER

Governor Lucey indicated that he might be attracted to the Mills approach if it included a more generous version of the Family Assistance Plan, Mr. Nixon's proposal for reforming the basis of welfare payments.

But his view of Federal-state relations, in any case, goes beyond the welfare issue.

"There are those who worry about the accountability of the states as against the Federal Government," he said in a speech last month. "It seems obvious to me that state expenditures are much more program-oriented than Federal, and under closer scrutiny by the public and press. At least, this is certainly true in Wisconsin.

"It is to the state government that people look to fill domestic needs. It is to the state government that our citizens bring their demands for clean water and air adequate police protection, good schools, efficient mass transportation, decent mental health institutions."

URGES SHIFT OF FUNDS

For those reasons, Mr. Lucey argued, "some Federal funds must be shifted to the state and local governments." He said that he would prefer to see that done by allowing Federal taxpayers to deduct from their income taxes the total amount they had paid to the states, thus encouraging greater state taxation without an increase in the net tax burden on the individual.

Governor Lucey has also argued more broadly that military expenditure by the Federal Government takes a disproportionate share of tax payments.

He recently submitted a state budget for the next two years totaling just under $2-billion. That required drastic economies, including some controversial proposed restrictions on spending at the University of Wisconsin.

In the same two years, Governor Lucey estimates, Wisconsin residents will be taxed $3-billion by the Federal Government "just to support the Pentagon." In a speech he added a jab at a one-time Wisconsin Republican politician, now Secretary of Defense. He said, "If Melvin Laird and the Pentagon generals had to sell their budget to the people of Wisconsin like I have to sell mine, the war in Indochina would stop in a week."

DR. ARTHUR GALSTON COMMENTS ON GENEVA PROTOCOL

Mr. FULBRIGHT. Mr. President, earlier this week the Committee on Foreign Relations had the privilege of hearing an eloquent statement from a distinguished biologist on the subject of the Geneva protocol. The witness was Dr. Arthur Galston who is professor of biology at Yale University and director of the Marsh Botanical Garden.

In his testimony, Professor Galston spoke to the desirability of including herbicides in the ban on "poisonous or other gases and all analagous liquids" described in the Geneva protocol of 1925. It was an unusually thoughtful statement, one which drew the committee's attention beyond questions of national interest to the more fundamental question of the future of the human species and our obligation in that respect. As such, I believe that it is worthy of the attention of all Senators. I ask unanimous consent that Dr. Galston's statement be printed in the RECORD.

There being no objection, the testimony was ordered to be printed in the RECORD, as follows:

TESTIMONY OF ARTHUR W. GALSTON

Testimony of Arthur W. Galston, Professor of Biology, Yale University, before the United States Senate Committee on Foreign Relations in Washington, D.C., March 22, 1971, in connection with hearings on the proposed ratification of the Geneva Gas Protocol of 1925.

My name is Arthur W. Galston. Since 1955 I have been Professor of Biology at Yale University, New Haven, Connecticut. I am currently also Lecturer in Forestry and Director of the Marsh Botanical Garden at Yale. I also serve on the Council and the Committee on Chemical and Biological Warfare (CBW) of the Federation of American Scientists and am President of the Scientists' Committee on CBW. I received my undergraduate education and B.S. degree at the New York State College of Agriculture at Cornell University, my graduate degrees (M.S. and Ph.D.) at the University of Illinois, and early postdoctoral training and faculty experience at the California Institute of Technology. During the early years of World War II, I worked at Caltech on the Emergency Rubber Project, in an attempt to domesticate and obtain rubber from the Mexican shrub, guayule. Later on, I entered naval service and served for a time as Agricultural Officer in the United States Naval Military Government unit on Okinawa. This tour of duty gave me some familiarity with the vegetation in that part of the world. I have also traveled extensively in other parts of the Far East, having visited Japan on several occasions, as well as Hong Kong, Singapore, Indonesia and the environs of Bangkok. During a two week stay in Indone-

sia in 1961, I lived at the famous tropical Botanic Garden in Bogor and also visited at the alpine gardens at Tjibodas. I have also traveled in tropical Australia from Darwin down through Townsville and the Barrier Reef to Brisbane. Within the past decade I have served as President of the American Society of Plant Physiologists and the Botanical Society of America, and in 1969 received a Merit Award from the Botanical Society. I have also been the recipient of Guggenheim, Fulbright and National Science Foundation Science Faculty Fellowships.

My training is as a botanist, and I wish to speak to this committee solely on the question of the desirability of including herbicides in the ban on "poisonous or other gases and all analogous liquids" described in the Geneva Protocol of 1925.[1] To begin with, I strongly support ratification of this Protocol by the United States Senate. I also concur with the already expressed view of the Federation of American Scientists that to ratify this treaty with damaging exclusions of herbicides and tear gas would be worse than taking no action at all. Such an ambiguous ratification would, in my view, simply invite other signatories to weaken the treaty by similar reservations and exclusions. It would also fly in the face of a decision already reached by an overwhelming majority of United Nations members who voted, 80 to 3, that herbicides and tear gas deserve to be included in the overall ban on CBW weaponry.

Let me tell you why, as a botanist, I am so convinced of necessity of banning herbicides and defoliants as weapons of war. These days it is conventional for man to consider himself as master of all he surveys. His ability to reach the bottom of the sea or the surface of the moon, to fly at supersonic speeds, to split the atom and to construct sophisticated computers makes him feel that there is no problem requiring scientific or technological expertise that he cannot overcome. This is a dangerous fallacy, and could lead man to overlook his own Achilles' heel. For man lives in this world only by the grace of vegetation. He is totally dependent on and cannot substitute for that thin mantle of green matter living precariously on the partially decomposed rock that we call soil. This fragile web of green plant matter incorporates radiant energy, carbon dioxide and water into energy-rich carbohydrates and other useful foods and materials through the magical and still poorly understood process of photosynthesis. The Bible has told us that "all flesh is as grass." The statement is as true today as it was when first written, for all men everywhere eat vegetation or creatures who eat vegetation. If man makes conditions unsuitable for vegetation on this earth, he thereby makes conditions unsuitable for his own existence. Like other life forms now extinct, man could perish forever from the face of the earth or could greatly restrict the conditions for survival if he is unwise in husbanding his vegetational resources.

According to our best estimates, green plants on the surface of the earth and in the waters of the oceans and lakes, each year without fuss or fanfare convert approximately seven hundred billion tons of carbon dioxide into roughly five hundred billion tons of plant material potentially consumable by man.[2] At the same time, they release into the atmosphere another five hundred billion tons per year of the oxygen required for respiration by man and almost all forms of life. I would remind the Committee that this prodigious biochemical process exceeds by about one hundred times the sum total of all of man's activities upon the face of the earth. Seen in this context, man is not the conquering colossus before whose onslaught all nature trembles; rather he is but one of the forms of animal life drawing sustenance from the bountiful bosom of nature. In view of the present population of about three and a half billion people on earth and the estimated doubling of this population in about thirty years, it ill behooves us to destroy with profligacy the ability of any part of the earth to yield food for man's nutrition, fiber for his clothes, wood to build and heat his houses, and other useful products, too numerous to mention.

It has been estimated that one acre of good high yielding hybrid corn can fix about a ton of carbon per year in photosynthesis. An acre of sugar cane, the highest yielding crop of all, can fix on the order of twenty tons of carbon per year. However, even sugar cane is dwarfed in its productivity by forest trees, which comprise the most productive ecosystem of all. On an earthwide basis, it is estimated that forests fix annually a total of about eleven billion tons of carbon, which is roughly three times the total yielded by all the cultivated lands of the world. The high yield of forests is due in part to the multiple stories of leaves which create a beautiful mosaic, effectively absorbing practically all of the radiant energy falling upon the forest. It would appear that one should treat forested lands with the respect due them as the major photosynthetic units of the earth.

In the decade since 1961 it is estimated that American military forces have defoliated more than five million acres of forest land in South Vietnam through the aerial application of more than one hundred million pounds of assorted herbicides.[3] Through this operation, more than 20% of the total forest of that country has either been killed or sufficiently inhibited in its growth as to reduce yield appreciably. This defoliation and killing of the forest has led to a considerable dumping of vital mineral elements into the waters leading to the ocean, and to a decrease in the organization of the forest community such that inferior systems like bamboo and *Imperata* grass, normally repressed by the overstory vegetation of the trees, have invaded and taken over large areas. Whether the forest can ever recover its original form is not known. Even more serious is the fate of the complex mangrove community lining the estuaries of the Mekong River Delta. About two hundred thousand acres of such mangroves, approximately one fifth of South Vietnam's total, has been killed as the result of sprayings which commenced in 1961. No one could then have foreseen this extraordinary sensitivity of mangroves to herbicides.[4] Yet, they are now dead. Optimistic estimates of recovery time indicate that a beginning may occur in several decades; pessimistic estimates say that the mangroves will never recover. The effect on the country of the death of such a complicated plant community can only be estimated. Certainly organic productivity is immediately down; the mangroves produced woody stems used for firewood, roots which held the soil in place against the swirling tides and currents of the river and ocean, and organic detritus, the conditions of which furnish an important ecological niche for many kinds of fish and shellfish harvested in South Vietnam. These make up an important part of the fish sauce poured over rice in traditional Vietnamese food. This sauce is one of the few protein-rich foods ingested in Vietnam, and its disappearance could have profound nutritional effects on the population. Later on, as the mangrove swamp land erodes due to the failure of vegetation to stabilize it against water movement, even more catastrophic effects may be expected.

One of my graduate students, Mr. Robert E. Cook, was a member of the Herbicide Assessment Commission of the American Association for the Advancement of Science. For three weeks in August of 1970, he was in South Vietnam helping to conduct preliminary examinations of the ecological and civil consequences of the defoliation and crop destruction program. Listen to his description of the devastated mangrove area,[5] first from the air. "It became immediately apparent that much of the mangrove forest in this area had been seriously damaged or destroyed. The delta was a maze of winding channels and drainage streams isolating large patches of land normally covered with dense mangrove forests. Below we could see many large muddy stretches on bare ground with no visible vegetation in sight. The tide was still rising and most of the drainage streams were swollen with silty water. The higher ground above the high tide mark varied from light muddy brown to dark ashen grey in areas that probably had heavier organic deposits. The surface was speckled with the bleached grey trunks of deadwood and fallen debris.

More commonly there were occasional patches of green in random blotches and streaks, and frequently individual trees could be seen close by the water or isolated in the middle of the grey-brown islands. Seldom did we see areas that were free from any damage; most frequently such areas were on the upwind edge of a spray swath such that within twenty yards the forest had been totally destroyed by a single spraying. I would estimate that about forty percent of the land over which we flew that day was totally devoid of vegetation, and that an additional thirty or forty percent had been seriously damaged, leaving only random patches of survivors."

Next, a description from the water, obtained from a naval gunboat. "Before long we were moving through defoliated areas, and the devastation was truly remarkable. Stretching as far as the eye could see, a great wasteland lay parched and dead, with a few trees standing and broken branches scattered across the ground. In some areas one could see for a half mile dead trunks cut two feet above the ground, and no signs of green life whatsoever. Occasionally a patch of grass was growing or a small clump of green vines; but most frequently the ground was brown and cracked, littered with the dead midribs from the leaves of once-green palms. We saw no living movement for many miles on each side of the channel except an occasional heron flying overhead."

Finally, here is a description from the land itself. "There was an awesome silence in the air broken only by the crack of each stick stepped on and the hum of small black flies. The incredible devastation swallowed all of our attention. At the edge of the water numerous mudskippers skittered off to their sunning logs, and crabs slipped quickly into holes in the mud when anyone approached. The area before us was dotted with the brown stumps of cut mangroves, and dead branches were scattered across the ground as though a great wind had shattered many dead trees into splinters. The soil was dry and cracked, and very little vegetation was seen growing anywhere. We searched around hoping to find some mangrove seedlings, but none were there. One small patch of green belonged to a vice-like flowering composite, and, not far away, a weedy fern-like species grew out of the base of a dead stump. Clearly little regeneration was occurring. We also found evidence of people before us, partially burned sticks, broken pottery and a sandal. We poked about the edges of a drainage stream, but there was little more to be seen among the sticks and mud. I remember thinking of the silent barrenness as I walked back to the boat.

But the immensity of the devastation became most apparent when we stopped, before returning to Quand Xuyen, in an area unaffected by herbicides. Within twenty feet of the boat we were swallowed up by the dense

Footnotes at end of article.

vegetation of twisting vines, heavy palm leaves and tall, waxy-leaved mangroves. Birds flitted through the trees, and the green was rich with crawling ants and spiders. The ground was moist under my feet and I could see no more than thirty feet in any direction The contrast was considerable".

Let me close with a statement I made about a year ago before a Conference on War Crimes and the American Conscience sponsored by ten Congressmen. The proceedings of this conference have since been published.[6] "After the end of World II, and as a result of the Nuremberg trials, we justly condemned the willful destruction of an entire people and its culture, calling this crime against humanity genocide. It seems to me that the willful and permanent destruction of an environment in which people can live in a manner of their own choosing ought similarly to be considered as a crime against humanity, to be designated by the term ecocide". I believe that our country has been guilty of ecocidal practices in Vietnam. I would hope that through ratification of the Geneva Protocol of 1925, and through the inclusion of herbicides and tear gas in the list of substances whose use is prohibited by that treaty we will make it less likely that our country or any other country will ever again commit itself to this kind of massive destruction of the only environment mankind will ever have.

FOOTNOTES

[1] A brief general review is found in Meselson, M. Scientific American *222*, 15, May 1970.

[2] Riley, G. A. American Scientist *32*, 132, 1944. Noddack, W. Angew. Chemie *50*, 505, 1937.

[3] Herbicide Assessment Commission. Preliminary report to the American Association for the Advancement of Science. Chicago, Dec. 1970. See review and comments in Aaronson, T. Environment *13*, 34, 1971.

[4] Some scientists did point out the danger of massive uncontrolled ecological experiments under previously untried conditions. See, for example, Galston, A. W. *in* CBW (Steven Rose, ed) Beacon Press, 1969. Also *in* Patient Earth (R. Socolow and J. Harte, Eds.) Holt, Rinehart and Winston, 1971.

[5] Cook, R. E. In press in Yale Alumni Magazine, 1970.

[6] Galston, A. W. *in* War Crimes and the American Conscience. (Erwin Knoll and Judith Nies McFadden, eds.) Holt, Rinehart and Winston, 1970.

AMERICAN POLICIES IN THE MIDDLE EAST

Mr. RIBICOFF. Mr. President, the distinguished Senator from Indiana (Mr. BAYH) recently spoke to a Boston audience about his visit to Israel earlier this year. I believe that his thoughtful observations and conclusions with regard to American policies in the Middle East should be carefully considered by all who follow events in this vital area. I heartily recommend Senator BAYH's firsthand impressions to all Senators.

I ask unanimous consent that the text of the address be printed in the RECORD.

There being no objection, the address was ordered to be printed in the RECORD, as follows:

SIX-POINT POLICY TOWARD A MIDDLE EAST SETTLEMENT

Today I want to share with you some impressions I received, and some conclusions I have reached, as a result of my recent visit to Israel.

During that visit I had the privilege of discussing the diplomatic, military, and economic situation with Prime Minister Golda Meir; Deputy Prime Minister Yigal Alon; Foreign Minister Abba Eban; Chief of General Staff Lt. General Haim Bar-Lev; Director of Military Intelligence Aharon Yariv, and others.

While there I also tried to see as much as I could of how people were living and what they were thinking, to determine what changes had taken place since my last visit in July, 1967, and to discover if the long period of tension since the Six Day War had taken any toll of Israeli morale.

My overwhelming impression was of high morale and firm confidence in the future—even in the face of continued concern for security. Everywhere I saw men, women and children involved in satisfying one of mankind's deepest needs: to be part of something greater than the individual. And certainly, the creative ferment that one felt in the air was superlative response to that need. It has led to the kind of accomplishment so well expressed by David Ben-Gurion when he said, "I'm living in a house and I know I built it. I work in a workshop which was constructed by me. And I know I shape my life according to my desire by my own ability. I feel I am safe. I can defend myself. I am not afraid. This is the greatest happiness a man can feel—that he could be a partner with the Lord in creation. This is the real happiness of man—creative life, conquest of nature, and a great purpose."

Above all, I saw this sense of creation when I traveled to Kibbutz Ashod Ya'acov Ihud. There, within rifle range of the Jordan border, was a symbol of the greatest problem, and the greatest promise, of Israel.

For two things about the Kibbutz struck me forcibly. One was the warmth and sparkling alertness of the children in the nursery, curious about a stranger, eager to learn. The other was the underground shelters and blast-resistant emergency rooms standing ready to protect those children and their parents should the quiet pastures once again become a battlefield.

The problem is, which will it be? Will the symbol of Israel's future be the children playing and learning? Or will it be the children rushing to the shelters to escape the enemy attack?

These are the questions that motivated me to journey to Israel. And these are the questions I addressed myself to while I was there.

I wish I could give you an unequivocal answer to those questions, but I am afraid that any honest answer must contain two elements—the element of hope and the element of concern.

Let us first look at the element of concern.

We all know of the obvious factors that make the path toward peace tangled and treacherous—the hostilities that have bred mistrust; the festering refuge problem; the inflated language and rigidity that blocks real communication; the new and more powerful weapons in the Egyptian armory; the presence of Russian advisors and combat airmen.

These realities pose a serious problem that can be overcome only through the most delicate negotiations and a willingness to compose differences and to coexist that has been sadly lacking in the past.

But there is another, and potentially more serious element of concern. This relates to our involvement in Southeast Asia, an involvement that is winding down, or "widening down," depending on the point of view. Some people, in Israel as well as in the United States, have expressed the view that the credibility of America's commitments elsewhere, such as in the Middle East, will be adversely affected if our support of the Thieu-Ky regime in South Vietnam is less than total. In short, that an unwillingness to go plodding on and on in Vietnam would signal a unwillingness to be steadfast in Europe or the Middle East.

I am convinced that view is exactly wrong. I am convinced that the longer we are bogged down in Vietnam, the less credible will be our commitments elsewhere. Most Americans now recognize our Vietnam involvement to be what it is: a unique mistake, an abberation that has no relation to the validity of our interest in Europe, the Mediterranean or the Middle East. The concern of Israelis and those of us who care about Israel should be that the longer we are in Vietnam the greater will grow the possibility that more Americans, in their frustration and anguish, will lose the capacity to differentiate between a misplaced commitment in a peripheral area and a well-founded commitment in a vital one. As Mark Twain once observed, we should be careful to get out of an experience only the wisdom that is in it—and stop there; lest we be like the cat that sat down on a hot stove-lid. She will never sit down on a hot stove-lid again, and that is good. But also she will never sit down on a cold one anymore either.

Plainly, Israel is not Vietnam. When an ally is willing to make a maximum effort of its own to create a representative government and an open society, to undertake the tasks of social and economic development and to defend itself to the limit of its own ability—our assistance can be highly effective. If such an ally resides in a part of the world which is strategically important to us—and the Israelis do—it is not only desirable but also in our vital interest to render such assistance.

The Middle East is, indeed, a strategically important region. It holds 80-million people. It is the fountainhead of three of the world's major religions. It stands at the crossroads of Eurasia. It touches on vital sealanes. And above all, it produces in abundance the staff of life of modern industry—oil.

The presence of 15,000 Soviet military personnel in the UAR and Soviet vessels in Egyptian ports as well as a Soviet military presence in Syria, Iraq, Sudan and some of the south Abrabian states reflects this strategic importance and the degree of Soviet appreciation of it. For them, and for us, the stakes are many and high. Soviet bases along the Mediterranean, by allowing their air and naval forces a greater scope of operation, could be an increased threat to the U.S. Sixth Fleet and the southern flank of NATO. Positions along the Red Sea, particularly if the Suez Canal is reopened, make the extension of Soviet naval power in East Africa, in the Persian Gulf and in the Indian Ocean much easier.

Further, since Western Europe and, particularly, Japan secure three-quarters of their oil from the Middle East, Soviet domination of that area could put Russian hands on the windpipe of our friends and allies. U.S. unwillingness to stand with reasoned firmness against Soviet domination of the Middle East—and of the Mediterranean—could create a dangerous sense of insecurity in Western Europe.

This then is the main element of concern, that revulsion from the unessential can make us irresponsible about the essential.

Counterbalancing to some degree this danger are certain important reasons for hope. Let me list them.

First, the fundamental good sense of the American people in recognizing our own compelling interests and their admiration for the achievement of Israeli democracy works against new isolationism in our Middle East policy.

Second, there is still quiet on Israel's western front.

Third, both principal adversaries are talking—indirectly to be sure—but nonetheless there is tentative communication through the web of hostility. And, as John Kennedy once said, "Jaw, jaw, jaw is far better than war, war, war."

Fourth, Israel's current situation gives her greater physical security than before the June War. The Sinai provides strategic depth on the West; in the East the Palestinian guerrillas have, to a significant degree been "defanged" by King Hussein and, more importantly, they seem to have lost support among the Palestinian people; in the north Israel looks down from, rather than up at, the Golan Heights; and the guerrillas in Lebanon are more of a nuisance than a threat. Together with Israel's military excellence, these facts have forced Arab leaders for the first time in two decades to confront seriously the issue of negotiating a political settlement.

Given this overall situation containing a mixture of great concern and fresh hope, what are the prospects for peace?

One way to view current developments in the Middle East is as part of a process. It would be unrealistic to call that process "negotiation." Certainly two men—one from Cairo and one from Jerusalem—are not yet sitting face-to-face debating disputed points and trading concessions. But what has been happening in recent months has the appearance of a process of *accommodation*. Whether it will lead to peace or whether it will end in another and perhaps more deadly round of fighting no one can really say. But these are encouraging signs. Let me touch on them:

Israel, which for two years insisted on direct negotiations, has accepted indirect contacts, at least at the outset.

Egypt has replaced the barbarous rhetoric of two decades about "pushing Israel into the sea" with language about "the territorial inviolability and political independence of every state in the area, including Israel."

While hedging with many unacceptable provisions, President Sadat has for the first time indicated Egyptian willingness to sign a peace agreement.

Attitudes in both capitals have clearly moderated.

Emphasis is on how to get the most favorable peace—not on how best to fight a new war. In light of the bitter history of hatred and belligerence, this, indeed, is a form of progress.

The passage of the March 7 deadline may signal a new period in this process. For one thing, the world is relieved of the tri-monthly suspense story. Will Egypt extend the cease-fire? Will the Big Four, or the Secretary General or the Security Council have to intervene to save the peace?

While there may now be a slightly increased possibility of small clashes, few observers expect a real conflict anytime. This is due to the underlying military balance—a balance that *must* be maintained soon. Instead, the absence of deadlines can help both sides to concentrate on the substance of the problem—rather than on the periodic vain efforts by one side to manipulate world concern about renewed fighting for unilateral advantage.

There may now be a time of waiting and of diplomatic—and public—probing. Each side claims that it has made an important proposal and that it is up to the other side to respond. After years of extremist rhetoric, Egypt's new diplomatic stance and apparent willingness to strike more flexible attitudes, has raised expectations. Because of this, Israel now faces hard choices. For the first time she must come to terms with the questions of what are her bedrock necessities, what matters are negotiable, and what *quid pro quos* are acceptable. This is not an easy endeavor. It takes time. It requires of the United States, as Israel's friend, a policy of understanding and patience as well as persistence. To push the Israelis harshly or clumsily could not only reverse the process of accommodation on the Israeli side, but also reawaken Egyptian hopes of avoiding serious negotiation.

If this process is to continue, as we all hope it will, what role should the great powers play? I believe the U.S. and the Soviet Union have a common interest in avoiding a direct confrontation in the Middle East. The four-power meeting, as well as bilateral talks can help to prevent that. Through them we can make the Soviets aware of our purpose and commitment so that they weigh carefully the possible gains of pursuing an aggressive policy against the risks of a big power confrontation. In the four-power talks we can work to influence to put their weight on the side of peace.

While this we can do, one thing the four powers should not do is impose a settlement, nor should they try to do so. The U.S. simply must not permit arrangements unacceptable to Israel to be forced upon her. And even if an undesired arrangement could be forced on the parties, it would not stand the test of time. It would be far better to take more time to negotiate an agreement both sides truly accept than to attempt to impose upon them one to which, in their hearts, they have not consented. Our purpose must be a genuine settlement—not another temporary armistice.

Recent indications from Moscow suggest some change in the Soviet policy in the Middle East. Apart from a realization that without some kind of settlement the Suez Canal will not be reopened, I am convinced that the Soviets want now in the Middle East what they have *always* wanted—as much as they can get at the lowest possible cost.

I must tell you, however, that I am deeply concerned about the role our government is now playing. It seems to believe that we can rely on wishful thinking about Soviet intentions. In this regard it was neither wise nor right for Secretary Rogers to announce publicly that the U.S. opposed all but "insubstantial" changes in the 1967 borders of Israel. It was not right because it is not our prerogative to give away someone else's strongest bargaining point before the give-and-take negotiation has even begun. It was not wise because it stimulated a rigidity in Israel's position born of past experience. Given that experience—first, when the world turned its back while the Nazis exterminated the Jews of Europe, and later, when the State of Israel repeatedly found international assurances and guarantees inadequate to protect its security—such rigidity is understandable.

In the ensuing months the Rogers formulation was de-emphasized. But unfortunately, the President chose to repeat it in his "State of the World" message last month. Again, publicly, our government took sides on an issue which should be the subject of negotiations between Arab and Israeli. Again, the U.S. appeared to be putting itself in the position of deciding beforehand what was to be done. The Israeli response, while widely criticized, is understandable—in their note to Ambassador Jarring they flatly stated their refusal to return to the 1967 borders.

There are sensitive areas particularly Golan, Sinai and Sharm el Sheikh—whose past misuse has been a direct source of conflict. Surely, their future status must be negotiated and agreed upon by Arab and Israeli. Clearly, Israeli withdrawals must be based on a treaty which settles these questions once and for all.

And beyond that, it is precisely because we know that a final settlement will give neither side all it hopes for, that the U.S. must not now waver in its support of Israel. Israelis know they cannot truly be 100% self-reliant. In this world no one can be. They expect that the U.S. will be one of the guarantors of a settlement when it is finally reached. If we now give them cause to question our reliability, we make the path to that settlement much more difficult.

For all who are deeply concerned about the creation of a viable peace in the Middle East, I am today proposing a six part policy.

First, if an opportunity to de-escalate the Middle East arms race appears, we should seize it. But if no such opportunity occurs, we must be willing to meet any expansion of Egyptian-Soviet military capability in the area. We must maintain the military balance so that Israel's adversaries do not come to believe that the path of war is more promising than the path of negotiation.

Second, we should resist the policy that the Administration is reported to be weighing of slowing or halting deliveries of supplies to Israel in order to push it toward accepting negotiating positions it might not otherwise accept. Neither the current state of negotiations nor what we know about the continued delivery of Soviet arms to Egypt would justify any such pressure on Israel.

Third, we should do everything possible to make clear to the Egyptians that there are realistic and attractive alternatives to their current policy. We should not only reassure them about Israel's posture after a settlement but also about re-establishment of our diplomatic relations and American economic assistance as well. In short, if they are at all concerned about the preponderance and possible danger of Soviet influence, we can offer Egypt a way to counter-balance that influence.

Fourth, we should emphasize to Israeli and Arab the importance of stating positions and reactions to diplomatic proposals in ways calculated to emphasize the ultimate objective of peace. Despite the immense legacy of bitterness due to a quarter-century of hostility, both parties must force themselves to look for the best in each other's position and to try building from that a mutually acceptable peace.

Fifth, although the most recent Egyptian initiative regarding the partial withdrawal of Israeli troops and the reopening of the Suez Canal may be a real sign of new Egyptian flexibility, both the United States and Israel should move with caution regarding the canal. I cannot stress this too strongly. For in the absence of an overall Egyptian-Israeli agreement including a *binding* commitment about Israeli use of the Canal, such an agreement would amount to a giveaway comparable to the trade between Esau and Jacob. Israel *must not* exchange something for nothing. And we should not urge her to do so. The over-riding fact about reopening the Canal is that growing Russian interests in the Red Sea and Indian Ocean make reopening important to them. Therefore, in my opinion, Russian interest in reopening gives us an important card to be played in persuading the Soviets to use their influence for peace. It is not to be played lightly. And it is certainly not to be thrown away.

Sixth, and most important, our objective should be first permanent solution, second permanent solution, and last permanent solution. We should by all means aim at gaining the substance, not the appearance, of peace. We must refuse to support—and certainly refuse to urge—any partial or temporary arrangement. A permanent settlement, at least between Egypt and Israel, is absolutely basic. For it is imperative that any settlement exclude as far as humanly possible the seeds of or incentives to future conflict. Less than this we have no right to urge upon them. Less than this will provide not a lasting peace but a breathing space between rounds. And less than this will mean future and possibly far more serious threats to the peace of the world.

My friends, my talks with Israeli leaders have convinced me that Israel is anxious to journey toward peace. But it wants to know precisely where that journey will take her. As Golda Meir said, "We have had an intimate knowledge of boxcars and of deportations to unknown destinations." Who among us who has not shared such an experience would urge any Israeli to take another journey to an unknown destination?

IRA KAPENSTEIN

Mr. BAYH. Mr. President, recently Ira Kapenstein, one of the finest young Americans it has ever been my privilege to know, passed away, grieving an army of friends shocked by his untimely death. Although but a young man, his maturity of spirit and store of wisdom made him a valued counselor to all concerned with devising policies to help achieve a better, finer America.

On March 13, Bruce Biossat captured this sense of loss in an eloquent column in the Washington Daily News. I ask unanimous consent that his eulogy to one whose presence made us all more hopeful that man might rise to reach his full stature as a child of God be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

HE GOT JUST 35 YEARS

When great qualities mark a quiet man, they often go unspoken. So it was for Ira Kapenstein, deputy chairman of the Democratic Party, who died the other day at 35. In that brief passage, without fanfare, he set foot on the summit.

He bore the stamp of leader, though cancer struck him down before he could move from the role of vital "second man" to others.

Secure in his manliness, he could always be gentle, performing kindnesses in profusion, with no claim of authorship. His brilliant, exacting mind led him nonetheless to tough judgments, which were his hallmark. He burned with loyalty, dedication, a sense of justice.

He would want no one to dwell upon his dying. Yet his courage at the end measures him. He worked on, masking his failing strength with a show of normalcy.

"Ira died the way men should live," Sen. Edward Kennedy said.

What so few of us who knew him realized is how loong he carried his burden. National Chairman Lawrence O'Brien, his boss, stresses it:

"He had to live for 10 years of his short life with the specter. In all his time with me, he allowed himself only a brief comment and a fleeting smile when he passed the fifth anniversary (supposedly a safety milestone) of his first cancer operation."

Until that moment in 1965, Mr. O'Brien did not know. And Ira's comfort was illusory. In 1969 he underwent surgery again, then last October a third time. By then he knew he was doomed. Few others did.

The story is not his ordeal, but how he lived in its awful shadow. His visible achievements—top political reporter, counsellor to two postmasters general, winner of awards for excellence in government, friend and helper to Mr. O'Brien the respected political leader—are well recorded. The value of Ira's life goes deeper.

Perhaps, knowing his own harsh secret, he had no room for anything not real. You spoke always to the only, the true Ira Kapenstein. That made him a rock, a friend to far more people than he grasped. Says one of many:

"Whether you knew him 10 years or 10 minutes, he could help you. He got to the heart of everything."

Another friend tells of the compassion which molded these skills:

"He was just a good man—so obviously good that everyone recognized it. If he had been rabbi or social worker, this would have been no surprise. But he managed to stay that way and still be effective in the rough world of politics."

Many remark this unique blend. As gentle as anyone who ever decried inhumanities in "the system," he yet chose to work for change within the establishment's walls.

For a decade, leaders sought the young man's wisdom. The late Robert Kennedy asked him to join John Kennedy's 1960 campaign. Even as he was faltering, Ira heard a new figure call for his services above all. The lad who was raised in a small Bronx apartment over a Chinese restaurant had come far and, luckily for him, fast.

As at work, so at home he battled for normalcy with his characteristic grace and balance in the face of peril. Fortune gave him a proud hour two weeks before his death, when his eldest son, Joel, 13, had his bar mitzvah with mother and two younger brothers looking on. A hundred friends heard the boy speak eloquently of poverty, hunger and peace. Ira beamed, and told of the family warmth he felt.

He had another high moment when, only days later, major Democratic Party reforms he helped to shape won final sanction. Then danger crept closer. Once in 1969, when Mr. O'Brien spoke of his own future at 50, Ira Kapenstein said softly: "I'd settle for 50." He got just 35 years, but their richness and quality are what living is all about.

REPORT OF NATIONAL PANEL OF CONSULTANTS ON THE CONQUEST OF CANCER

Mr. KENNEDY. Mr. President, in recent weeks there has been immense interest in S. 34, the bill I have introduced on behalf of a bipartisan group of more than 50 Senators to create a new national program for the conquest of cancer. As Senators are aware, much of the impetus for this legislation comes from the three-part report last December of the National Panel of Consultants on the Conquest of Cancer, a group of 26 distinguished scientists and laymen, chaired by Mr. Benno C. Schmidt, of New York, and Dr. Sidney Farber, of Boston.

Because of the widespread interest in the panel's report, I ask unanimous consent that three items may be printed in the RECORD—part I of the report which contains a brief summary of the overall report; the summary of part II of the report, which deals with the scientific and medical background in the field of cancer research and treatment; and a list of the members of the panel of consultants.

The full report—including the rest of part II of the report, and part III of the report, which contains much valuable background material, including a historical review of cancer research, work being done by Government agencies and private organizations, the growth and funding of categorical institutions, and State laws and regulations pertaining to cancer research—are available from the Senate Committee on Labor and Public Welfare.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

NATIONAL PROGRAM FOR THE CONQUEST OF CANCER: REPORT OF THE NATIONAL PANEL OF CONSULTANTS ON THE CONQUEST OF CANCER, PREPARED FOR THE COMMITTEE ON LABOR AND PUBLIC WELFARE, UNITED STATES SENATE, DECEMBER 4, 1970

PART I—SUMMARY

Introduction

On April 27, 1970, the Senate passed Senate Resolution 376 authorizing the Senate Committee on Labor and Public Welfare, with the assistance of an advisory committee, to report to the Senate on (1) the present status of scientific knowledge with respect to the causes of cancer and its treatment, cure, and elimination, (2) the prospect of success in such endeavors, and (3) measures necessary or desirable to facilitate success at the earliest possible time. Pursuant to that resolution, the Committee of Consultants was designated in June 1970, and was asked to submit its report and recommendations at the earliest practicable date but not later than December 15, 1970.

On July 15, 1970, the House of Representatives passed Concurrent Resolution 675, later passed by the Senate, expressing the unanimous sense of the Congress that "the conquest of cancer is a national crusade" and that "the Congress should appropriate the necessary funds so that the citizens of this land and all other lands may be delivered from the greatest medical scourge in history."

On June 29, 1970, the Committee of Consultants held its first meeting. Since that time the Committee has met 10 full days, subcommittees have met many additional days and the written or verbal testimony of 289 witnesses and advisors has been considered. The Committee is pleased to present herewith its report and recommendations.

Summary and recommendations

1. Cancer is the No. 1 health concern of the American people. A poll conducted in 1966 showed that 62 percent of the public feared cancer more than any other disease. Of the 200 million Americans alive today, 50 million will develop cancer at present rates of incidence, and 34 million will die of this painful and often ugly disease, if better methods of prevention and treatment are not discovered. About one-half of cancer deaths occur before the age of 65, and cancer causes more deaths among children under age 15 than any other disease. Over 16 percent of all deaths in the United States are caused by cancer, making it by a wide margin our second greatest killer (after cardiovascular diseases). Cancer often strikes as harshly at human dignity as at human life, and more often than not it represents financial catastrophe for the family in which it strikes.

2. The amount spent on cancer research is grossly inadequate today. For every man, woman, and child in the United States, we spent in 1969: $410 on national defense; $125 on the war in Vietnam; $19 on the space program; $19 on foreign aid and only $0.89 on cancer research. Cancer deaths last year were 8 times the number of lives lost in 6 years in Vietnam, 5½ times the number killed in automobile accidents, and greater than the number of Americans killed in battle in all 4 years of World War II. Given the seriousness of the cancer problem to the health and morale of our society, this allocation of national priorities seems open to serious question. In addition to the poignancy of the disease, and the death and suffering that it causes, the economic loss is staggering, with estimates of its costs to the Nation running as high as $15 billion per year, of which some $3 to $5 billion represents direct care and treatment costs and the balance is loss of earning power and productivity.

3. The incidence of cancer is increasing. This is partly due to the fact that a greater number of our citizens are reaching more advanced ages, where cancer strikes more frequently, but it is also due to the sharp increase in lung cancer, undoubtedly attributable to the air pollution in certain environments and most importantly to the self-pollution of those who smoke cigarettes. It is estimated that if the American people stopped smoking cigarettes this alone would eliminate about 15 percent of all cancer deaths.

4. The nature of cancer is not yet fully known. We know that human cancers are

caused by certain chemicals, by certain types of radiation, and probably by viruses. The precise mechanisms by which these carcinogenic agents cause, or interact to cause, cancer is not known, and very little is known about the natural defense mechanisms that prevent cancer in some cases and not in others. A great deal more must be learned about chemical carcinogens, radiation, and viruses, and how they work. We must also learn more about what takes place at the cellular level when cancer occurs. There is very strong suggestive evidence that viruses cause some human cancers, but which viruses, how they are transmitted, and how they operate are unknown. It is erroneous to think of cancer as a single disease with a single cause that will be subject to a single form of immunization (as in the case of polio) or a single cure. Cancer comprises many diseases and results from a variety of causes that will have to be dealt with in a variety of ways. However, as our knowledge is expanded, more and more cancers will become preventable or curable.

5. The cure rate for cancer is gradually improving. In 1930 we were able to cure only about one case in five; today we cure one case in three; and it is estimated that the cure rate could be brought close to one in two by a better application of knowledge which exists today, i.e. detection at an earlier stage through the more widespread use of existing techniques (such as the Papanicolaou test for women and mammography), coupled with an extension to all citizens of the same quality of diagnosis and treatment now available at the best treatment centers. There are three methods for curing cancer today: surgery, radiation therapy, and chemotherapy. Often two or even three of these methods are used in combination. Some types of cancer are far more curable than others. For example, early breast cancer treated by surgery, cancer of the cervic by radiation or surgery, and choriocarcinoma and Burkitt's tumor by chemotherapy, are among those most susceptible to cure today. Treatment techniques are improving markedly, particularly in radiation therapy and chemotherapy, and more widespread availability of the best quality detection and treatment will give us more and more cures. However, it is still true that those cancers which disseminate rapidly are seldom curable today, and this represents a major gap in our existing knowledge. Where we stand today in our knowledge of the causes, nature, prevention, diagnosis, treatment, and control of cancer is set forth in detail in part II of this report.

6. There have been major advances in the fundamental knowledge of cancer in the past decade, and these advances in knowledge have opened up far more promising areas for intensive investigation than have ever heretofore existed. These areas of special promise must be explored with vigor, if we are to exploit the great opportunities that lie before us. They are examined in detail in part II of this report.

Among the areas of special promise which must be aggressively pursued are:

(*a*) The identification and study of the chemical, physical, and other environmental factors that cause cancer (food additives, air pollutants, industrial hazards, radiation, and other carcinogens);

(*b*) Viruses causing cancer (what viruses cause cancer, how are they transmitted, and how do they act);

(*c*) Cell and tumor biology (including cell surface phenomena, molecular functions, differentiation and genic expression, controls of cell division, mechanisms of metastasis, nutritional requirements and other biological factors);

(*d*) Immunology (host resistance against cancer, its nature, causes and therapeutic use);

(*e*) Epidemiology (the variables in cancer incidence and types stemming from geographic, social, economic, nutritional, occupational, and constitutional differences);

(*f*) Cancer prevention (more effective utilization of existing knowledge and intensified research on preventive measures);

(*g*) Diagnosis (the development of new and improved diagnostic techniques);

(*h*) Chemotherapy (the development of new and better drugs and improvement in their uses);

(*i*) Radiotherapy (development of new and better techniques and apparatus for radiation therapy);

(*j*) Surgery (the best techniques in cancer surgery coupled with earlier diagnosis must be made generally available in order to further increase the cure of cancer. Better rehabilitation techniques must be further developed and utilized to return the cancer patient to an active and full life);

(*k*) Combinations of treatment modalities (improvement in treatment results by better combinations of surgery, radiotherapy, chemotherapy, and immunotherapy).

7. A national program for the conquest of cancer is now essential if we are to exploit effectively the great opportunities which are presented as a result of recent advances in our knowledge. However, such a program will require three major ingredients that are not present today:

First, effective administration with clearly defined authority and responsibility;

Second, the development of a comprehensive national plan for a coherent and systematic attack on the vastly complex problems of cancer. Such a plan would include not only programmatic research where that is appropriate, but also major segments of much more loosely coordinated research where plans cannot be definitely laid out nor long-range objectives clearly specified; and

Third, the necessary financial resources.

At the present time there is no coordinated national program or program plan. The National Cancer Institute has done excellent work itself and has supported grants and contracts in the scientific community which have resulted in much outstanding work, but the overall research effort is fragmented and, for the most part, uncoordinated. The effort in cancer should now be expanded and intensified under an effective administration charged with developing and executing a comprehensive national plan for the conquest of cancer at the earliest possible time. The three foregoing elements are considered separately in more detail in the succeding paragraphs 8, 9, and 10.

8. *Administration.*—An effective major assault on cancer requires an administrative setup which can efficiently administer the coherent program that is required in this formidable and complex scientific field. Such a setup will not be easy to achieve within the Federal Government. The effective implementation of such a program will require a simplification of organizational arrangements and a drastic reduction in the number of people involved in administrative decisions. This type of straight-line organizational efficiency does not exist today in the National Cancer Institute, the National Institute of Health, or the Department of Health, Education, and Welfare. Obviously, from many standpoints it can be argued that any cancer program should be in the Department of Health, Education, and Welfare and indeed that it should be in the National Institutes of Health. However, there is real doubt whether the kind of organization that is required for this program can in fact be achieved within the National Institutes of Health or within the Department of Health, Education, and Welfare. Apart from the question of whether it can be done, there is also the question of whether it would be wise to require the Secretary of Health, Education, and Welfare to attempt to give cancer the priority necessary to carry out the congressional mandate in a department charged with the multiple health and other responsibilities of that Department.

In the past when the Federal Government has desired to give top priority to a major scientific project of the magnitude of that involved in the conquest of cancer, it has on occasion, with considerable success, given the responsibility for the project to an independent agency. Such an agency provides a degree of independence in management, planning, budget presentation, and assessment of progress which is difficult if not impossible to achieve in a large government department. Accordingly, if the Congress and the administration are truly committed to making the conquest of cancer a "national crusade," as expressed in the concurrent resolution of the Congress, it is the view of the Committee that a National Cancer Authority should be established whose mission is defined by statute to be the conquest of cancer at the earliest possible time. All the functions, personnel, facilities, appropriations, programs, and authorities of the National Cancer Institute should be transferred to the National Cancer Authority. The Authority should be headed by an Administrator appointed by the President with the advice and consent of the Senate, and he should report directly to the President and present his budgets and programs to the Congress. In considering the feasibility of an independent agency, it should be borne in mind that we are talking about a major scientific program and, as pointed out in subsequent paragraphs not the delivery of patient care generally in cancer cases. The only patient care involved in this program will be that associated with clinical research and teaching and the development and demonstration of improved methods in the delivery of patient care undertaken as a part of the comprehensive program plan.

The powers of such a National Cancer Authority should be very broadly defined in order to accomplish a mission of this complexity. It would not be useful to attempt to enumerate here all the powers that such an Authority should have and in the writing of the implementing legislation, the Committee believes that the powers should be broadly defined and not enumerated. However, the following are illustrative of the kinds of powers which the National Cancer Authority will have to be able to exercise in order to carry out a comprehensive program of the type envisaged:

(*a*) The power to enter into prime contracts with authority in the prime contractor to enter into subcontracts;

(*b*) The power to commit available funds until expended rather than on a year-to-year basis;

(*c*) The power to authorize exceptions to existing regulations, where necessary, to permit the use of experimental drugs, biologicals, and devices in cancer research;

(*d*) The power to establish or support the large-scale production of specialized biological materials for cancer research, such as viruses, cell cultures, animals, and the like, as well as the power to set standards of safety and care for those using such materials;

(*e*) The power to support research outside the United States by highly qualified foreign nationals, collaborative research involving American and foreign participants, and training of American scientists abroad and foreign scientists in the United States, to the extent that such activities will promote the accomplishment of the mission. The Committee believes that cancer research offers a particularly fruitful field for collaboration with other nations, including those nations with whom present cooperation is limited but with whom greater collaboration is desired;

(*f*) The power to fund by loan, grant, contract, or otherwise any facilities or programs, or to take such other actions, as may

be required for the accomplishment of the mission.

9. *Program plan.*—A comprehensive national plan for the conquest of cancer should be developed as promptly as possible. The development of a coherent overall program plan should include the following features:

(*a*) The present research activities now being carried forward under the National Cancer Institute should in no way be impeded or interrupted while plans are being made for the expansion, intensification, and coordination of the cancer research program;

(*b*) Existing research facilities and manpower should be used as promptly as possible for the accelerated exploitation of the opportunities in the areas of special promise. There is substantial unused capacity in this country today that should be utilized in order to attract and retain the manpower that is needed. It is a myth that we could not spend effectively on cancer very much more than is now being spent. The fact that Federal support for cancer research has leveled off since 1967 and that, due to inflation, the actual amount of work done has decreased has created a serious gap between what we are doing now and what we could and should be doing in cancer research. It is estimated that current expenditures could be doubled within the framework of the existing facilities and manpower potential of this country today, exclusive of the great industrial research capability in this field which should be brought to bear on an appreciable scale in high priority areas to which this type of capability is particularly suited.

(*c*) Existing cancer centers should be strengthened and additional cancer centers in different parts of the country should be created. The solution of the cancer problem lends itself to a multidisciplinary effort, where teams of highly qualified specialists are available to interact on problems of research, both clinical and nonclinical, teaching, diagnosis, preventive programs, and the development of improved methods in the delivery of patient care, including rehabilitation. Among those who work in the cancer field, there is great emphasis on the advantages of critical mass—a critical mass of scientists and physicians committed to the cooperative solution of the cancer problem, of research facilities, of patients, and of financial and other resources. This is simply another way of saying that the comprehensive cancer center offers the best organizational structure for the expanded attack on cancer. In addition to the few comprehensive cancer centers that exist in the United States today, there are a number of other institutions which combine all or most of the capabilities for a multidisciplinary effort in cancer. These could serve as a base for the creation of additional centers. The new centers should have appropriate geographic distribution and should, wherever possible, be created where a nucleus of scientific, professional and managerial personnel already exists and preferably where a university or a medical school affiliation exists or is planned.

In the creation of new cancer centers, manpower limitations should be taken into account, and new centers should not be created where there would be a dilution in the effectiveness of existing centers which would offset any gain from the new center. There should be a realistic operating plan for each new center which assures the scientific and managerial commitment and ability necessary to the creation and operation of a successful center.

It should be emphasized that the strengthening of existing cancer centers and the creation of new cancer centers does not mean that under this program general responsibility should be undertaken for the care of the Nation's cancer patients. The delivery of patient care in cancer cases is a part of the general problem of the delivery of patient care and should be so dealt with. However, this inhibition must not prevent the cancer centers from including such patient care facilities as are necessary for clinical research and teaching and for the development and demonstration of the best methods of treatment in cancer cases.

(*d*) The cancer centers should also serve as administrative coordinators of those programs which require regional coordination. Such centers should support and assist clinics and community medical centers in their own geographic areas in order to assure the widespread use of the best available methods for early detection and treatment of cancer. They should also serve to collect data useful in the prevention and cure of cancer, including patient follow-up information, and be responsible for the dissemination of information, both at the lay and professional levels, that is useful in the prevention, diagnosis and cure of cancer. The effective dissemination and utilization of such information is a most important part of any national plan to conquer cancer.

(*e*) A national plan of the type envisaged must take account of the manpower requirements for this effort. There is a critical need for training and career opportunities for young scientists, physicians, and other personnel in this program. We must reaffirm to young investigators our confidence in the future of American science and in our national dedication to success in the conquest of cancer. A manpower program in this field should include training stipends, predoctoral fellowships for particularly promising candidates, postdoctoral fellowships for brilliant investigators, and career positions where appropriate through career initiation awards, career development awards, and senior career awards.

(*f*) A national plan for the conquest of cancer should provide for the generous use of grants as well as contracts and other methods of funding. There should be increased emphasis on the grants mechanism in order to stimulate continued independent exploration, particularly in those areas where knowledge is not sufficiently mature for a coordinated program aimed at reaching defined objectives.

(*g*) A comprehensive national program requires optimum communication and centralized banks of information. There must be an accurate and prompt information flow in both directions. This will call for integrated data processing, storage, and retrieval in order to rationalize the decision-making and to make information available when and where needed. As indicated above, the centers can be important foci in both the collection and dissemination of this information.

(*h*) A coordinated national program plan should, to the greatest possible extent, be generated by the voluntary productive interaction and joint planning of the scientists who will be responsible for doing the work. The program should not be the result of the happenstance of a multitude of random decisions independently arrived at. An integrated and coherent plan resulting from the joint effort of representative scientists who will be responsible for its execution is fundamentally different from the hierarchial imposition or direction of a research program from above. However, the effective use of collective planning does not mean that centralized administration or management of resources should be sacrificed.

10. *Funding.*—The Committee estimates that a coordinated national program aimed at the conquest of cancer at the earliest possible time, as invisaged by the concurrent resolution of the Congress, would require an appropriation in fiscal 1972 of approximately $400 million. Thereafter, the cost of the program would increase at the rate of approximately $100 to $150 million per year, reaching a level of $800 million to $1 billion in 1976. These sums are not large in terms of our national resources or of the human suffering and economic loss attributable to cancer. A program of the type herein recommended is so important to the American people and to the world that we feel that the amounts called for should be provided even if this necessitates the raising of additional revenues. It is of utmost importance that the financing of this program not result in cutbacks in other health programs.

11. *National Cancer Advisory Board.*—Both the public and the scientific community must be effectively represented in this effort, and must have a part in its planning as well as its execution. To this end, a National Cancer Advisory Board should be created with 18 members, nine of whom are distinguished scientists and doctors in the field of cancer, and nine of whom are distinguished laymen. The members should serve for a term of 6 years with the terms of one-third of the members expiring every 2 years. Members of the Board should be appointed by the President of the United States with the advice and consent of the Senate. The Chairman of the Board should be elected by the members and should serve for a term of 2 years. The Board should meet not less than once each quarter and its function should be to advise and assist the National Cancer Authority and its Administrator in the development and execution of the program. The Administrator should be an ex-officio member of the Board. The Board should have statutory responsibility for the approval of each year's program plan and budget, but the responsibility for administering the program should rest with the Administrator. The Board should have full investigatory powers and should be required to report once each year to the President and the Congress on the progress of the National Cancer Authority in the accomplishment of its mission. This Board should supersede the presently existing National Advisory Cancer Council, and the members of that Council should serve as additional members of the National Cancer Advisory Board for the duration of their present terms.

12. Cancer is an implacable foe and the difficulty of eliminating it as a major disease must not be underestimated. A top priority commitment by the Congress, the President, and the American people is required if we are to mount and sustain an assault on cancer of the magnitude envisaged by Senate Resolution 376 and the concurrent resolution of the Congress. Such a commitment involves a recognition not only of the difficulty and complexity of cancer but also of the time and resources required to attack it effectively. While it is probably unrealistic at this time to talk about the total elimination of cancer within a short period of time or to expect a single vaccine or cure that will eradicate the disease completely, the progress that has been made in the past decade provides a strong basis for the belief that an accelerated and intensified assault on cancer at this time will produce extraordinary rewards. The Committee is unanimously of the view that an effective national program for the conquest of cancer should be promptly initiated and relentlessly pursued.

PART II—SCIENTIFIC AND MEDICAL BACKGROUND: SUMMARY

In 1969, 323,000 persons died from cancer in the United States. Deaths from cancer were greater than all U.S. battle deaths in the four years of World War II and four times the sum total of the war in Vietnam. Of the 200 million people now living in the United States, approximately 50 million will develop some form of cancer and, unless better methods of treatment and cure are developed, 34 million of those now alive will die of cancer. The rate of increase in deaths from cancer is more rapid than the rate of increase in the population. Most of this increased mortality is a result of the rise in

deaths from lung cancer among males in the past 30 years. Although one usually thinks of cancer as a disease of maturity and old age, it is also the largest cause of death—except for accidents—among persons between the ages of 1 and 35.

There are no complete figures on the economic impact of cancer in this country. It is estimated, however, that direct costs for hospitalization and medical care, coupled with losses of productivity and earning power, are probably in the range of $10 to $15 billion per year. In spite of these appalling facts, the 1969 allocations in our national budget, per citizen, were $410 for national defense and only 89c for cancer research.

Present status of cancer treatment

It has been estimated that there are now 1,500,000 individuals who are alive and well more than five years after treatment from cancer and that another 700,000 who have been treated within the past five years are alive and well. Whereas, in 1930, only one in five individuals with cancer survived five years after treatment, the figure has since risen to one in three, and under optimum circumstances, one in two may be cured. This improvement in cure rate is tangible evidence of the benecial impact of the many advantages in diagnosis and treatment which have accrued from the nation's investment in cancer research in the past 25 years.

The Avenues of Advance

There are four chief avenues of advance toward the conquest of cancer:

1) *Cancer prevention*—by the elimination from the external and internal environment of chemical and other agents that cause or promote cancer.

2) *Earlier cancer detection*—through improved methods, whose application will allow earlier curative therapy.

3) *More effective application of present treatment methods*—by making more widely available the best present techniques of surgery, radiation, and chemotherapy.

4) *Development of new methods of cancer treatment and prevention*—through research. It is the judgment of the Panel that major gains in the effort to eradicate cancer will come from new developments achieved through research.

Cancer prevention

Cancer prevention offers greater possibilities for the control of cancer and the saving of human lives than any other measure now at hand. Many, perhaps most, human cancers can now be prevented. The most important environmental causal agent in the production of internal cancer today is the prolonged inhalation of cigarette smoke. Cigarette smoking is now recognized as the major cause of lung cancer and a significant factor in the causation of cancer of the oral cavity, pharynx, and larynx. Other cancers that can now be prevented include: cancers of the skin from prolonged overexposure to sunlight, to ultraviolet lamps, to arsenic, to coal tar, and to certain oils and chemicals; cancers of the bladder in workers exposed to betanaphythylamine; cancers of the lung in miners in uranium, chromate and asbestos mines; cancers of the nasal sinuses in nickel miners; and leukemias and thyroid cancer from excessive radiation. Studies of the differences in the geographic distribution of various cancers throughout the world should lead to the identification of other specific and presumably avoidable carcinogens in the environment.

Cancer detection

If cancers are discovered when they are still localized, the majority of them can be cured by surgery and radiotherapy. The past decade has witnessed striking innovations in the development of methods and instruments for cancer detection, as well as the perfection of established procedures. Exfoliative cytology is extremely valuable in detecting early cancer of the cervix and also in studying high-risk populations for cancer of the lung, bladder, and stomach. It may soon be applicable to cancers of the colon, kidney, and oral cavity.

Diagnostic radiology also contributes to cancer detection by means of chest X-rays, G.I. series, and barium enemas, and also by mammography, which is the examination of the breast by special X-ray techniques. Significant progress has been made over the past few years in endoscopic examinations of the esophagus, stomach, colon, and bladder as a means of early detection of cancer. An immunologic test for early cancer detection has been reported in the past year. This test involves a fetal antigen, called carcinoembryonic antigen (CEA), which is present in the blood of patients with cancer of the colon and disappears from the blood of patients treated successfully. Several other such fetal antigens are being investigated for their diagnostic significance in primary cancer of the liver and other human cancer.

Cancer treatment

Surgery

Today surgery offers patients with many types of cancer more chance for a cure than any other known treatment and is the most widely used form of cancer therapy. To cure, surgery must take place before the cancer has spread and become established beyond the tissues that can be removed. Good surgical treatment is now able to cure by the five-year criteria at least 95 percent of patients with skin cancers, about 70 percent of women with cancer of the uterus, 60 percent of women with breast cancers, and 40 percent of patients with cancers of the colon and rectum. Relatively few patients, however, with cancer of the lung, stomach, or pancreas are being cured. In virtually every category, there is a striking difference in cure rate between patients with localized cancer in whom the regional lumph nodes have not become involved and patients in whom regional lymph node involvement is present. Organ transplantation may allow wider surgical excision and so increase the possibility of cure where cancer involves vital organs. The potential of this technique in cancer control is just beginning to be realized. Surgical techniques, organ preservation, tissue typing, and immunosuppression now have been developed to the point where replacement of vital organs irreparably damaged by cancer is occasionally possible, but better techniques of immuno-suppression are urgently needed.

In the future, prevention of cancer by the removal of precancerous growths may eventually be surgery's greatest contribution to the control of cancer. Another major frontier in the surgical therapy of cancer is in reconstruction and rehabilitation. There is a need for a greater number of qualified cancer surgeons.

Large medical centers are usually staffed with excellent cancer surgeons but this is not so often the case in less populated regions. Increasing the number of competent cancer surgeons can improve the treatment of cancer and, therefore, increase the number of lives saved.

Radiation Therapy

Radiation therapy is second in importance only to surgery as a modality for the curvative treatment of a wide range of cancers arising in various parts of the body. In addition, it has an important role in palliative treatment of cases that are too far advanced for cure. It is used for cure or for palliation in 50 to 60 percent of all cancer cases at some stage of their evolution. Radiation therapy makes use of the ionizing radiations—including x-rays and electrons produced by man-made machines, and gamma rays which emanate from naturally or artificially radioactive elements—to destroy cells by injuring their capacity to divide. Since the single most important attribute of cancer cells is their sustained, uncontrolled, lawless proliferation, inhibition of such proliferation is precisely the therapeutic goal which is desired.

Remarkable strides have been made in the past 20 years, owing largely to the technologic development of machines producing beams in the multimillion electron volt energy range. Such beams can deliver a greater dose to deep-seated tumors without the serious skin reaction that formerly limited treatment with lower energy x-ray beams. Thus, five-year survivals of patients with early Hodgkin's disease have been increased from approximately 35 percent to 75 percent, cancers of the cervix from 40 percent to 60 percent, and embryonal cancers of the testis from 25 percent to 60 percent. Modern megavoltage radiotherapy apparatus is expensive and requires major capital investment and centralized facilities, as well as specialized personnel. These complex requirements are most readily satisfied by centralization of radiotherapy departments in major cancer hospitals or in university medical centers.

An integral component of many of the larger radiotherapy departments is an active fundamental research program in cellular and molecular radiobiology, biophysics and radiologic physics. Thorough comprehension of the complex processes by which ionizing radiations damage vital macromolecules is likely to reveal a variety of approaches whereby the efficiency of cell killing can be enhanced or modified with potential therapeutic benefit. The recovery of cells from the lethal effects of radiation can be blocked by chemical agents—such as Actinomycin D. The principal target in the cell is its deoxyribonucleic acid (DNA); DNA, the prime genetic determinant, is a double-stranded molecule and in this molecule, radiation produces breaks in one or both of the two strands. Two compounds, 5-bromodeoxyuridine (BUdR) and 5-iodo-deoxyuridine (IUdR), have been shown to increase the radiosensitivity of cells by increasing the number double-stranded breaks in DNA. Preliminary results of BUdR infusion and radiotherapy in brain tumors have been encouraging. Single-strand breaks produced in DNA by ionizing radiation are much more numerous but rapidly undergo repair and thus are not lethal under ordinary circumstances. An exciting new line of investigation has recently been opened up by the discovery that several chemical compounds are able, when added to cell cultures soon after radiation, to block single-strand repair. There is an urgent need for intensified investigation of this new approach, since some of these compounds are known to be relatively nontoxic in man.

It has long been known that cells are nearly three times more sensitive to radiation when oxygen is present than when it is absent, as it is in some areas of tumors. Certain nuclear particles—notably neutrons and negative pi-mesons—have attracted attention as substitutes for x-rays and electrons because they are much less dependent on oxygen and thus could effect the hypoxic-cancer cells. The optimum dose schedules for radiation are not known and their determination will presumably depend on more information on cell population kinetics of a given type of tumor and their normal tissue homologues.

There is a critical shortage of manpower in the field, not only of radiation therapists but in all of the relevant paramedical areas as well. If all radiation therapy were administered by highly-trained, full-time radiation therapists, it is estimated that four times the present number available would be needed. Many medical schools and large community hospitals remain without either megavoltage equipment, radiotherapists or supporting facilities. There is thus an urgent need to bring the general level of staff, equipment, and facilities throughout the nation up to standards which are acceptable by today's criteria

and to offer to all patients the benefits of the many advances made during the past 15 to 20 years.

Chemotherapy

In contrast to surgery and radiation therapy, chemotherapy can be used effectively for disseminated as well as localized cancer. Although chemotherapy had long been considered largely a palliative procedure, it is now evident that certain types of cancer can be cured by chemical treatment, either with single drugs or combinations of several drugs. Some of these curable cancers are choriocarcinomas and metastatic hydatidiform moles, highly malignant types of cancer which originate in the placenta; Burkitt's tumor, a highly malignant form of cancer which arises in the jaw or abdomen and occurs most frequently in children; and Wilm's tumor, which originates, in the kidney of young children and rapidly spreads to the lungs. In acute leukemia of children and in advanced stages of Hodgkin's disease, long-term remissions have been achieved in an ever increasing percentage of the patients, and in many of these, presumptive cures have been achieved. Cures of carcinomas of the superficial layers of the skin have been achieved in the majority of patients treated with topical application of certain anticancer drugs. There are many other tumors which are markedly benefitted by chemotherapy, but in some no real beneficial effect can be achieved.

Much research is being done in the basic and developmental aspects of chemotherapy research. In the screening for new agents, in addition to the fast-growing mouse leukemias, the use of mouse tumor systems which screen for activity against the relatively slow-growing human carcinomas is being emphasized. Similarly, cancer cell kinetics are now being explored in the slow-growing solid tumors as well as in the more rapidly-growing leukemias and lymphomas. Research in cancer chemotherapy has made it clear that there is great individual metabolic diversity among tumors, which fact enormously complicates the task of chemotherapy. Most drugs currently available exert their action primarily as growth inhibitors and consequently exert toxicity to rapidly dividing normal cells. Some experimental tumors, however, can be cured by individual drugs or combinations of drugs; such cures imply that there are major metabolic differences between these tumors and normal tissues.

For example, mice with a particular form of experimental leukemia [L1210] can be cured. In order to achieve these cures, *all* of the leukemic cells must be killed. That cures of this cancer can be produced without lethal toxicity to the animal is remarkable and encouraging.

The major classes of effective compounds include: alkylating agents, antimetabolites, antibiotics, plant products, and steroids. There are also some miscellaneous individuals compounds. Most of these compounds have been discovered by screening in animals. The mechanism of action of the majority of these compounds involves DNA. The alkylating agents react chemically with DNA and prevent its further replication. Many antimetabolites block DNA synthesis. Many antibiotics bind to DNA or intercalate into DNA and consequently block DNA transcription.

In any tumor, only a certain proportion of cells are actively dividing at any one time. Most drugs that inhibit cancer growth kill only these dividing cells. The degree of killing is often proportional to the growth rate of the tumor. The same effect is observed in cancer patients; acute leukemic cells, for instance, can usually be killed much more effectively than cells of slow-growing solid tumors.

As a result of studies on the patterns of cell division characteristic of a number of experimental tumors, drug regimens have been designed that are much more effective against these experimental tumors than when the sams drugs have been given arbitrarily. In studies on human cancer cell kinetics, the problem of extrapolating dosage schedules of cycle-dependent drugs from mouse to man demands a thorough knowledge of the kinetics in man of various types of cancer cells, as well as of the most sensitive normal cells—such as bone marrow or gastrointestinal epithelium. Much progress has been made in the understanding of the cell kinetics of acute leukemia in man, but further work is needed in the leukemias and particularly the more slow-growing human solid tumors.

Cancer cells may eventually become resistant to the drugs, as a result of selection from a mixed cell population. This resistance has been shown to result from the loss of activating enzymes, induction of synthetic enzymes, or from an increase in repair processes. Resistance can be minimized by the use of suitable drug combinations. Use of such combinations has been largely responsible for the improved results in the treatment of the acute leukemias and Hodgkin's disease.

Research to establish optimum dosage schedules and route of administration for chemotherapeutic agents has produced such outstanding achievements as increasing the cure rate of metastatic choriocarcinoma from practically zero to greater than 75 percent, and of Burkitt's tumor from zero to 50 percent. Meningeal involvement is common in acute leukemia. Leukemic cells in the cerebrospinal fluid cannot be reached by most otherwise active systemic chemotherapeutic agents and must be treated by intrathecal administration of the drugs. The use of the Omaya reservoir to instill the drug directly into the cerebrospinal fluid of the ventricles appears to achieve a longer lasting effect.

Cancer chemotherapy appears to hold great promise for the future control of cancer. Indeed, it is concluded that the chemotherapy of cancer is today at a point analogous to that of the chemothreapy of infectious disease in 1937. Not only has it been established that certain types of cancers can be cured by chemotherapy but also the technical knowledge is available to mount a large-scale program for the development of new agents and new regimens of treatment.

Cancer research

Cancer Biology

Cancer is a population problem among cells. As in other population phenomena, the interactions prove to be multiple, complex, and often subtle. In spite of these complexities, it is now known that normal cells in a functioning organ sense and respond to one another as well as to the specific chemical messages coming to them from distant body sites. In the course of normal aging and tissue renewal, they replicate and grow in exact relationships to one another—relationships which are compatible with the successful function of that organ—lung kidney, intestine, breast, or other. Not only the number of a particular cell type is regulated, but also the geometry of their growth in relation to other adjacent cell types. They literally count one another!

In cancer cells—whatever their cause—something has gone wrong with this social interaction of cells as they no longer sense or respond properly to the intercellular growth stimuli or restraints. The result is a disproportionate growth and the accumulation of certain cell types—often at the expense of their neighbors. In most cases the losses are only partial defects, and the affected cells retain much of their original character. They may be easily identified by growth pattern, morphology, or function as arising from cells of a particular phenotype. In many cases they respond to pharmacological levels of the normal stimulant or depressant for that cell type. Thus, while differing from the cell of origin, the cancer cell may retain many, properties which could be used to therapeutic advantage, if only it were possible to identify those properties which play important roles in the interactive growth of cancer cells with their normal neighbors.

Accordingly, in order to make maximum progress in the control and treatment of cancer, it is necessary to identify the principles and components which operate between cells in normal organ growth and to clarify the specific defects in the cancer cell which leads to its relative unresponsiveness to these normal regulatory mechanisms. It is important, in particular, to identify the interactions and mediating principles which persist or might be re-enforced in specific neoplastic tissues to correct their disorderly growth pattern.

Biochemical Properties of Cancer Cells

With respect to the biochemical properties of cancer cells in relation to normal cells, it is known that although there is unity in the fundamental chemical organization of living cells, there is a fantastic diversity in the detailed chemical properties. Tremendous chemical differences are found from species to species, from organ to organ, among different types of cells within individual organs, and even among the same types of cells at different times. Paralleling the diversity of chemical detail in normal tissues, there is also a great diversity of chemical detail among various types of cancer. Such diversity exists not only among cancers of different organs, such as mammary cancer, liver cancer, and skin cancer, but among different cancers arising from a single cell type such as the major type of liver cell (the hepatocyte).

Just as normal cells can lose a variety of enzymes or can alter the ratios between a variety of different enzymes and still survive, cancer cells can sustain major shifts in enzyme pattern and survive.

The rationale of cancer chemotherapy rests on the assumption—supported by the occasional successes of cancer chemotherapy—that chemical differences between normal cells and cancer exist, despite the many common or identical features that maintain the vital processes in both normal and cancer cells.

There are a number of unresolved problems in cancer biochemistry: First, among the chemical components of cells there is no single one whose alteration can be said at this time to be *essential* to the malignant transformation, although there are a number of biochemical properties that correlate with growth rate. There appears, rather, to be an alteration in the relation between the various components, whether this is referred to as altered control, regulation, feedback, homeostasis, or integration, in relation to the needs of the whole organism.

Second, there is no agreement at this time as to whether or not cancer can occur without alteration in the genome—that is, whether or not alteration in the DNA sequences of the cell, broadly equivalent to somatic mutation, is a universal requirement for malignant transformation. The recent demonstration of the integration of the DNA oncogenic viruses into the cellular genome and the recent findings that the oncogenic RNA viruses can exist as a DNA provirus suggest that a comprehensive explanation of viral oncogenesis and its relation to the somatic mutation theory of cancer may be forthcoming.

Third, there is no agreement at this time as to whether the transformation of a normal cell to a cancer cell is universally irreversible occasionally reversible, or potentially widely reversible. It is well known that under a variety of circumstances highly malignant cells can lose their malignancy without, however, becoming normal.

Fourth, the available evidence suggests

that in the transformation process there may be an activation of latent genes and a shutting off of other genes, just as in normal differentiation and cell maturation. There is the important difference, however, that the process in the cancer cells fails to proceed to the point of coordination with the needs of the rest of the body.

It is now becoming possible to explore the biology of the tumor cell with much greater precision than was ever previously possible. Technological developments, such as radioisotopes and the electron microscope, enable investigators to examine functions and structures of individual cancer cells. Advances in tissue culture techniques permit the study of carcinogenesis in single cells under controlled conditions. The recent discovery that different types of cells can fuse in tissue culture to form viable hybrids has opened the way to genetic anlysis of tumor and normal cells of a sort not even envisaged a few years ago.

Etiology of Cancer

The goal of cancer etiology—the study of the causes of cancer—is cancer prevention. Three types of agents have now been shown to cause cancers: chemicals, radiation, and viruses. Of these, two—chemicals and radiation—clearly cause cancer in man and the third, viruses, are, on the basis of present knowledge, highly suspect.

Cancer epidemiology

Cancer epidemiology seeks to correlate differences in the incidence of different types of cancer with differences in the external or internal environments of the persons developing these cancers as has already been established. For example, between cigarette smoking and lung cancer.

Recent investigations have raised some intriguing questions that call for further study. These include the malaria-like distribution of Burkitt's tumor among African children; the sevenfold higher incidence of breast cancer among American than among Japanese women; the much greater incidence of colon cancer in the United States than in Africa and, conversely, the extremely high incidence of liver cancer in certain areas of Africa; and the spotty geographical distribution of esophageal cancer throughout Africa.

The results so far of epidemiological research strongly suggest that variations in exposure to environmental agents and in social practices are largely responsible for variations in the incidence of cancers among different groups of people. Therefore, if such environmental exposures and social practices could be identified and eliminated, the majority of cancers in man might be prevented. Because of the complexity of the relationships between man and his environment and the long latent period of cancer development, the identification of particular cancer-inducing factors is extremely difficult, but there is no other area of cancer research that holds more promise for cancer prevention.

Chemical carcinogenesis

The objectives of research in chemical carcinogenesis are 1) identification and removal from the environment of compounds that cause cancer in man, and 2) identification of the mechanisms by which chemicals induce cancers, so that such induction may eventually be prevented or reversed.

Testing for Carcinogens: Hundreds of chemicals have now been shown to be carcinogenic in experimental animals. Furthermore, new potential carcinogens are being introduced daily into the environment in the form of air pollutants, food additives, pesticides, etc. Reliable screening methods to assay which of these agents may be dangerous to man are not yet available and are urgently needed.

The screening of such compounds is complex for several reasons. First, the experimental procedures now available, which usually involve tests in laboratory animals, are slow and expensive and the correlations between the activity of an agent under these conditions and its action in man in the natural environment are not always clear. Furthermore, exposures to even very low doses of multiple agents, such as may now be occurring in man's increasingly carcinogenic environment, may have additive effects which could not be discerned by the testing of any one agent alone. Finally, there are indications that certain carcinogenic chemicals may be endogenous—that is, produced within the body of certain persons from naturally occurring organic compounds.

Mechanism of action of chemical carcinogens

It is known that many chemicals are changed by the tissues of the organism into their ultimate carcinogenic form. As a consequence, the varying capacities of different tissues and of different individuals for the activation and deactivation of chemical carcinogens are important factors in determining the susceptibilities of individuals to chemical carcinogenesis. It has been possible, in one instance, to identify the particular enzyme system involved in the activation of a particular carcinogen in mice. Such identifications, if they can be extended to the human population, may make possible the detection of persons who are high cancer risks because of their particular enzymatic machinery, and also, if useful inhibitors are found, may open the way to the blocking of the activities of activating enzymes.

As a class, carcinogens have physicochemical properties that result in their binding to macromolecules within the cell, including DNA, RNAs and proteins. It is presumed that the cancer-causing activity of the agents is related to their affinity for particular molecules, but it is not known which of these affinities are of crucial importance in the induction of cancer in man or in experimental animals.

Induction by chemical of tumors in the skin of mice and probably in other tissues in other species can be divided into two distinct phases, initiation and promotion. In some cases, cancers can be produced only following exposure to both chemicals and in the "right" order. Knowledge of the biochemical events that occur during initiation and promotion would provide important leads to the understanding of the nature of carcinogenesis.

Radiation carcinogenesis

X-rays and other ionizing radiations have been shown unequivocally to cause cancers of the skin, leukemias, bone cancers, and various other types of cancers in man as well as a broad spectrum of neoplasms in experimental animals. Recently it has also been demonstrated that ionizing radiations can produce cancerous transformation in cells in tissue culture. Because dose and timing can be precisely controlled, radiation-induced transformation *in vitro* offers a uniquely useful model system for studying the early events of carcinogenesis.

Radiation may cause cancer by producing changes in the genetic material of cells (somatic mutation), by activation of latent viruses, and by disturbing growth regulatory mechanisms. Of these three possible modes of action, the latter two have been well documented in experimental animals. In mice, radiation results in the induction of a leukemia virus. Radiation damage to endocrine glands of experimental animals has been shown to produce hormonal imbalance which leads to cancer.

Whether or not such mechanisms are involved in the induction of cancers in man is not clear but this question is of great theoretical interest as well as practical importance.

Viruses and Cancer

Some one hundred viruses now have been discovered which cause cancer in some species of amphibians, birds, and mammals. Although there is, as yet, no unequivocal evidence of a human cancer virsus, most investigators working in this field are of the opinion that viruses will soon be shown to be responsible for some types of human cancer.

Search for human cancer viruses

One of the viruses now under intensive study as possibly carcinogenic in man is the EB virus, which has been observed in electron micrographs of cells of Burkitt's tumor (a tumor of African children whose distribution leads to the suspicion that it may be of infectious origin). The EB virus belongs to a common "family" of DNA-containing viruses known as the herpes group, among which is the virus which causes fever blisters. One hundred percent of the African children with Burkitt's tumor have been found to have significant amounts of antibody against this virus, as compared to less than 50 percent of the other African children tested. Other studies of the EB virus have indicated that it is probably the cause of infectious mononucleosis, a benign infectious disease which involves the same type of cells that are involved in leukemia and induces, in these cells, a phase of very rapid growth.

A group of RNA-containing viruses, which have been detected by the electron microscope in samples of human milk and in human breast cancer cells growing in tissue culture, is also suspected of causing human cancers. These viruses are found more frequently in milk specimens of women from groups with high rates of breast cancer—such as the Parsis, a highly inbred group in India—than among the general population. These viruses resembled the mouse mammary tumor virus, a virus which is transmitted from mother to offspring in genetically susceptible strains of mice. It is not known, however, whether or not the viruses found in humans are associated with any form of cancer.

The third highly suspect group of viruses are the C-type viruses which have been shown to induce leukemias and sarcomas in cats, chickens, and mice and have been detected in specimens of human leukemias and lyphomas.

It is difficult to prove that a particular virus causes cancer in man because it is not ethically possible to inject a suspected virus into human beings and see if cancer occurs. Moreover, such viruses when first isolated from laboratory animals have usually grown only in genetically similar animals and no comparably inbred strains of humans exist. However, some ingenious new detecting systems, involving the growth of cells in tissue culture, have recently been worked out which should help to provide a solution to this critical problem.

Mechanism of action of the cancer-causing viruses

Virus particles are composed of either DNA or RNA, depending on the type of virus, and protein. The protein serves as a protective carrier for the nucleic acid and is discarded before or soon after the virus enters the cell. Once within the cell, the viral DNA or RNA interacts with the biochemical components of the cell. In the case of the common infectious viruses, such as influenza, this interaction results in the production of new viral particles and the death of the host cell. In the case of certain bacterial viruses (the lysogenic" viruses) and also, apparently, of the cancer-causing viruses, the viral DNA or RNA becomes a part of the cell and the cell, as a result, takes on new properties.

Cancer-causing DNA viruses are thought to persist in the cell as part of the cellular DNA and to be replicated with the cellular DNA at the time of cell division and passed on to daughter cells. As mentioned previously, however, some of the known cancer-causing viruses are RNA viruses. In what form are the RNA viruses perpetuated

within the cell? Several years ago it was proposed that the RNA of the cancer-causing viruses is translated into DNA within infected cells and that the viral "information" is stored in this form. Recently an enzyme that translates RNA into DNA was found. This enzyme, known as RNA-dependent DNA-polymerase, is associated with all the cancer-causing viruses so far tested and with only two viruses not known to be cancer-causing. This enzyme has been reported to be present in the cells of some human acute leukemias, but not in normal blood cells. This suggests that the enzyme may be the "footprint" of a hidden virus in these human leukemic cells.

Interferon

Immediately following infection by a virus, animal cells produce a protein substance, interferon, which protects neighboring cells from infection by that virus and by other viruses as well. Each animal species produces an interferon that is active only in cells of that species, and the cells produce it for only a relatively brief time.

Very recently it has been discovered that interferon not only can inhibit cancer induction by known cancer-causing viruses but also delay the progression of or produce regression in some leukemias and transplanted mammary tumors in mice. Microscopic studies of the tumors after treatment indicate that the interferon had specifically destroyed the cancer cells without injuring normal cells. Extensive work on technical procedures for the production of larger amounts of human interferon is clearly needed.

Interactions Between Etiologic Factors

As noted previously, a number of environmental agents are known to cause cancers. Yet not all persons exposed to these agents develop cancer. Clearly there are also factors within an individual that determine whether or not he will develop cancer. These intrinsic factors include genetic characteristics, aging, activity of particular enzymes, and hormonal and immunologic status. Most apparently "spontaneous" human cancers are probably caused by a combination of factors, both intrinsic and environmental.

According to one recent new hypothesis of cancer causation, certain types of cancer viruses are transmitted from generation to generation, probably as part of the cell's genetic material. Whether or not an individual carrying such a virus develops cancer is a result of whether or not the cancer-producing viral genes remain "turned off," or repressed, or are activated. Chemical carcinogens, radiation, and perhaps other viruses are among the agents that proponents of this hypothesis suspect of being capable of activating these hypothetical viral genes.

Molecular Biology

Molecular biology seeks to account for the basic phenomena of life, such as growth and reproduction, in molecular terms. In the last two decades, in a series of brilliant discoveries, the nature of the genetic material, how it is replicated, and how it is translated into cellular enzymes and other proteins has been revealed. Present studies are focused on the molecular events involved in cellular differentiation and in the regulation of gene function. Cancer, whatever its causes, clearly involves a dysfunction at the molecular level in the cellular control mechanisms. Basic research in the molecular biology of cancer is the area of investigation most likely to reveal this fundamental, underlying disorder.

Immunology of cancer

The defense systems of the body, by immunologic reactions, defend it against invasions by bacteria and other micro-organisms. It is now clear that cancers also invoke immunologic reactions in their hosts. "Spontaneous" regressions of a few cancers in man are well documented. Lowered immunologic status both in man and in laboratory animals results in increase susceptibility to cancer. Finally, autopsies of persons who died of other causes and were not known to have cancer reveal an incidence of "silent" cancers considerably higher than that of clinical cancer. These data suggest that immune reactions can hold the cancer in check, sometimes completely successfully. This new knowledge is opening the way to the development of wholly new methods of cancer therapy and detection, based on immunologic techniques.

Immunologic means of cancer detection

In the cancer cells of laboratory animals, antigens are found associated with DNA and RNA viruses which are shared by all cancers produced by a particular virus. Cancers produced by chemical carcinogens also have antigens, but these are different in each tumor produced by the carcinogen.

In human cancer, antigens have been found in cells of Burkitt's tumor and this same antigen is associated with infectious mononucleosis. Among other common antigens in human cancers is one which is found in melanomas, which is the first suggestion of a possible viral origin for this type of cancer.

Recently the intriguing discovery has been made of a new kind of antigen, a fetal antigen, associated with human cancer. These antigens, which are released from cells and can be detected in the blood stream, are normally present in embryonic or fetal tissues, disappear in adult life, and only reappear in the cancerous cell. (This reappearance suggests that a gene that is switched on in fetal life and switched off after birth is switched on again during carcinogenesis.)

One of these fetal antigens, CEA, is providing the basis for the new immunologic test previously mentioned. The second fetal antigen is found in the blood stream of about 75 percent of patients with cancers arising in the liver. A third fetal antigen is found in association with a variety of other tumors. All of these antigens may be useful in the development of diagnostic tests.

Studies on cancer prevention

A vaccine has been developed which protects chickens against a herpes type virus which cause an infectious lymphomatosis in chickens. The possibilities of developing a vaccine against the related EB virus associated with Burkitt's tumor and other diseases, are being explored.

Immunotherapy

Because of the indication of an association between cancer progression and a lowered immune capacity, ways are being sought to bolster immune responses in cancer patients. In a few cases of acute leukemia in children, addition to the treatment regimen of an agent known as BCG, which nonspecifically stimulates immune reactions, has been associated with a few very long remissions. Immunotherapy will probably be most useful in combination with other forms of treatment, which will remove or destroy most of the cancer cells. However, in such situations it might be of critical importance whether or not a cure was achieved.

Clinical investigation

Clinical investigation is essentially the culmination of basic and preclinical studies in cancer research and the development from these of techniques useful in preventing, diagnosing, and treating cancer in man. Among the important achievements of clinical investigation have been the testing of new surgical procedures, new types of ionizing radiation and new chemotherapeutic agents in man and the development of schedules and combinations of therapies that have resulted in great improvement in treatment. For certain types of cancer, cures or presumed cures ("presumed" because insufficient time has elapsed) have been achieved by chemotherapy in patients with choriocarcinomas and Burkitt's tumor and occasionally in patients with widespread Hodgkin's disease, acute leukemia, and other forms of cancer for which the previous cure rate was virtually zero.

Areas of active study in this field include investigations of immunologic status of patients with different types of cancer, studies of groups of persons, such as heavy smokers, patients with mongolism, etc., who have a high risk of cancer development, to define the factors which determine their susceptibility to cancer, and comparisons of enzyme systems in normal persons and cancer patients. The latter studies have resulted in the detection of an RNA-directed DNA polymerase in the leukemic cells of patients with acute leukemia but not in normal white cells. This suggests that the enzyme may be the "footprint" of a hidden virus in these leukemic cells. If this enzyme could be shown to be an essential component of the leukemic cell, there might be a possibility of treating the disease by blocking this enzyme action.

As the pace and productivity of fundamental research increases, a greatly expanded effort in clinical investigation must be undertaken in order to realize fully the promises and accomplishments of cancer research.

Areas of greatest importance

Certain broad areas of cancer research, in the judgment of the Panel, warrant expanded and particularly vigorous exploration.

1) *Epidemiological Research* can identify extrinsic influences (such as chemicals, viruses, and radiation) that may play substantial roles in determining the frequency of cancer. Different types of cancer are known to occur with varying incidence in different geographic regions and under varying circumstances of social, economic, nutritional, and occupational conditions. Epidemiological identification of intrinsic conditions such as genetic predisposition, immunological impairment, hormonal effects, or metabolic differences may elucidate other factors affecting the incidence of cancer which could be clinically controlled.

2) *Chemical Carcinogenesis* is a research area of prime importance because of the variety and quantity of new compounds introduced into the biosphere. Preliminary efficient screening should be used to eliminate or reduce this hazard. The ability to evoke neoplastic change in isolated tissue in culture should accelerate the research in defining hazardous compounds and the mechanisms by which cancer is caused. Further research is needed on:

a) The basic cellular and molecular mechanisms of action of carcinogenic chemicals, viruses, and radiations. There may be several mechanisms (both genetic and epigenetic) for each class of carcinogens.

b) The kinds of interactions of viruses, chemicals, and radiations which result in the production of neoplasms in experimental animals and man.

c) The proportion of tumors in man induced by viruses, chemicals, radiations, and combinations of these agents.

d) The prevention of chemically induced cancer in man by the identification and removal of causative chemicals.

It is known that in most circumstances, a compound is transformed to a proximate carcinogen, which is then directly involved in the carcinogenic process. There appear to be common chemical characteristics of the proximate carcinogens and also common characteristics of the cellular metabolites with which they can react. Further research is called for on how to interfere chemically with the metabolism which produces the

proximate carcinogen or to inactivate it once it is formed.

3) *Virology.* The recognition that a variety of neoplastic diseases in domestic and wild animals are due to viruses makes it appear increasingly probable that some types of human neoplasia are due to viruses. Although viruses have been found in human cancers, proof of their etiologic relationship is still incomplete. An expanded study of viruses in cancer should include the mechanisms of a how a virus initiates cancer, b) how a virus may be carried in cells for long periods of time without expressing its cancerous potential, c) how a natural defense against viral oncogenesis occurs, d) how a virus can sometimes cause tumors and sometimes other, non-neoplastic diseases, e) how the presence of a virus can be detected by characteristic and special chemical reactions, and f) how the interactions between viral infection and chemical carcinogens occur which sometimes can evoke tumors.

4) *Tumor Antigens.* The characterizaton, isolation, and purification of antigens from normal cells and from specific tumor cells are important both to the understanding of differences in cellular chemistry in the neoplastic state and to the development of tools for the study of tolerance or rejection of tumors. Some of these antigens may be identical with those found in embryonic tissues, and some may be specifically associated with virus infection.

5) *Cellular Immune Mechanisms.* Much further work is needed on the chemical, biochemical, and antigenic nature of cancer cell membranes in comparison with those of normal cells, especially in terms of the role of the membranes in coordinating cell activity with bodily needs. Substantial evidence indicates that some, if not all, tumors have surface antigens different from normal cells These differences allow recognition and possible eradication of the tumor by cells of the lymphoid or reticuloendothelial system of the host. This surveillance mechanism is known to be influenced by genetic, hormonal, chemical, and physical factors, and perhaps by many others. The characteristics of production, distribution, and mechanism of action of the effector cells that participate in the defense against tumors are of great importance. Failure of cellular mechanisms to eradicate emerging tumor populations may be the final step before a tumor becomes established and begins to grow and so is worthy of intensified study.

6) *Humoral Immmunity* is conveyed through the agency of one or more of the five immunoglobulins and perhaps by other proteins in the plasma. Humoral effects on tumor cells span the range from lethality to apparent protection of the cell by interfering with cellular immune mechanisms. The interrelation of the immunoglobulins with other proteins, their relation to receptor sites on the cell, and their influence on cellular immune mechanisms, urgently need clarification.

7) *Immunoprophylaxis and Immunotherapy* have both been shown to be effective in experimental animals, and useful immmunotherapy has been reported in some children with acute leukemia. Specific and nonspecific stimuli may enhance immunologic response of the host's own immunocompetent tissue, both *in vivo* and *in vitro*. Techniques of using specific tumor antigens, additional immunocompetent cells, and nonspecific immunologic stimuli, are worthy of intensified study. The timing of immunotherapy with respect to other procedures needs clarification, but this form of treatment would appear to be most useful after maximal reduction in tumor size by surgery, radiation, or chemotherapy.

8) *Diagnosis.* Precise and highly sensitive techniques of diagnosis prior to the appearance of clinical symptoms or of large masses of cancerous tissue are of major importance to advances in therapy. It is suspected that many, if not most, neoplasms secrete materials into the blood which have remote effects on the patient and which are not yet recognizable with tests available. Immunological assay methods have been successfully used to quantify tumor products in biological fluids. For example, chortonic gonadotropin indicates the presence of trophoblastic neoplasia and its detection allows diagnosis and appropriate therapy before a tumor mass is recognizable. A carcinoembryonic antigen appears in the blood of patients with carcinoma of the bowel, and a sarcoma antigen in patients with sarcomatous tumor growth. Continuing research to seek biochemical and immunological means of detecting cancers early deserves expansion. Automated analytic techniques with comparisons of results against computer-banked data for the healthy population and for the same individual at an earlier date would provide a more precise method for early diagnosis.

9) *Chemotherapy.* Several disseminated human tumors have been cured with drugs alone, giving ample testimony to the proposition that selective toxicity does exist and that a potential for cure is present. Effort must be extended to understand the interaction of drug, host, tumor, oncogenic agent, and host defense mechanisms in this equation. Research on which drugs to give for which tumors, in what combinations, and when in the course of the disease (before operation, after operation, with radiotherapy, after widespread metastasis, etc.) are areas of great importance.

10) *Tumor Cell Kinetics.* Only a portion of tumor cells are in an active growth cycle at any one time, and the synthesis of critical cellular constituents is known to occur during specific phases of that cycle. A much deeper understanding of selective toxicity during different phases of the cell cycle is needed in addition to elucidation of the natural death of cells within the tumor, the fraction of cells in the tumor which can reproduce, and techniques of killing cells which are not in the critical phases of synthesis. These types of information are required particularly for slow growing spontaneous neoplasms in experimental animals and in man.

11) *Sanctuary.* Tumor cells lodge at a distance from the closest capillary or beyond the blood brain barrier may enjoy a pharmacological sanctuary where adequate drug concentrations cannot reach them to exert lethal effects. Experimental and clinical research of this problem is required.

12) *New Drugs.* Chemical syntheses of compounds or polymers designed to interfere with critical steps in cancer cell biosynthesis and metabolism are important. The specific targets and techniques of selecting the compounds for trial must be arrived at by chemists and biologists in coordination, and these synthetic programs must be carried out in close proximity to biological testing, so that rapid feedback occurs. Empiric screening of natural products, particularly plant extracts and antibiotics, continues to provide compounds of major clinical usefulness. Nearly a dozen substances of botanical and microbiological origin are now in clinical use and have demonstrated therapeutic benefits against cancer. The programs of search for botanical and antibiotic drugs against cancer should be extended together with relevant biological screening in close proximity. Much additional research is also needed on:

a) Metabolic or enzymatic differences between normal and malignant cells, which might lead to new drug design.

b) Sophisticated testing of compounds, particularly antibiotics, against various important biosynthetic enzymes. Drugs which may affect enzymes unique to oncogenic viruses hold particular promise for neoplasms found to be caused by viruses.

c) Pharmacology and metabolic disposition of known active compounds in human cancer patients.

d) Development of growth-inhibiting compounds that are *not* immunosuppressive.

e) Synthesis and structure-activity analyses of series of compounds that inhibit key enzymes, with the aim of discovering species or tissue differences in affinities for the drugs.

f) Attempts to lay the groundwork for the development of new classes of drugs that would affect processes of malignancy other than growth, such as invasion and metastasis.

g) Elucidation of the mechanisms whereby certain drugs potentiate the lethal effects of heat on tumor cells.

h) Attempts to find new and effective drugs to produce a radiosensitization of tumors.

Predictive Testing of Drugs before human use is of major value and must be extended. The optimal dose, route, schedule and conditions of administration may be learned from experimental animals in addition to the toxicities and side effects which may develop. What is more, development of methods by which a drug can be tested in the laboratory for its effectiveness on the patient's own tumor prior to its clinical use is an area where important advance can be made.

Clinical Investigations in chemotherapy provide an essential link in cancer research, since the ultimate goal is prevention and relief of the disease in man. Cooperative group studies bring earlier results of higher precision and validity because of the positive intellectual input of several investigators in planning the research.

13) *Radiotherapy.* Use of new radiation sources may allow avoidance of the problems of anoxia in tumor tissues and so substantially improve radiotherapeutic results. Another area of great importance is the continued and expanded study of the effects chemotherapeutic agents in combination with radiotherapy where the optimal choice of drug, schedule, dose, and radiation regimen needs wide investigation.

14) *Surgical Improvements* can be made which should substantially increase cure rates. These involve the early use of surgery as a prevention of the development of invasive and matastatic cancer by removing precancerous tissues. In addition, the combination of radiation and surgery in the eradication of established neoplasms is subject to major improvement by appropriate design, precise scheduling, and the use of drugs, to take advantage of the small residual tumor populations after the initial major reductions. Organ transplantation should be developed as an aid to the extension of curative surgery.

15) *Fundamental Biological Studies* are of the greatest importance in disclosing information about the causes of cancer and strategy for its cure and prevention. Molecular biology can elucidate DNA mutations. A change in DNA structure as a random event or as a response to an environmental trauma may lead to cellular death, or, if the injury is compatible with cellular survival, a mutation. Following such a mutation, a series of descendants may appear whose change in the DNA, if unrepaired, may be heritable and could be the cause of neoplastic transformation. In the course of normal growth and maturation, this change in DNA would be reflected in the composition of RNA, which in part provides messages specifying particular protein syntheses which determine the character of the cell's enzymes and thus its whole metabolic machinery. Mutations and derangements in the repression and derepression of genetic material are susceptible of study by a wide range of experimental systems. These studies must be pursued in great range of experimental systems. These studies must be pursued in great detail because of

their relevance to cancer. Further work is needed in the area of biochemistry to support both the search for preventive and therapeutic measures:

a) Further documentation of biochemical diversity in cell components and in responses to control factors is necessary to depict the true magnitude of the cancer problem and perhaps to sort out the threads of unity which must exist.

b) Examination of tumors in terms of *isozymes* is particularly important because, if two different enzymes can catalyze the same reaction but possess different three-dimensional structures, they may respond differently to chemotherapeutic agents, and the information may suggest new modes of chemotherapy. Isozyme research is also important because it is relevant to the understanding of gene regulation in differentiation, in transformation of normal cells to cancer cells, and in the understanding of the relation of the two processes.

16) *The Nature of Cell Surface* is imprecisely known. Its chemical and physical composition, its mediation of the cell's antigenic identity, its function in nutrition and in drug intake, are poorly understood. The mechanism by which the surface affects the control of a cell's mobility and the role of how this is distorted to allow the characteristic invasion and metastasis of cancer is not understood and merits continuing research.

17) *Biological Organization.* Intercellular communication in a multi-cellular animal is an obvious reality. The right number of particular types of cells of given architectural relationships accumulate to make up our characteristic normal organs. Among the most typical features of cancers is a loss of normal architectural arrangement suggesting a major alteration in intercellular communication. Mediators of this intercellular communication must be sought. Tumors evoke a new blood supply and a chemical complex responsible for this activity, known as the angiogenesis factor, has recently been isolated and is worthy of major additional exploration. More research is needed on:

a) The development of assay systems for sensing and measuring the growth-regulating chemicals which operate between different cells in specific growth situations and neoplastic conditions.

b) The isolation and characterization of the active principles.

c) The synthesis of precursors, analogs, and antagonists of these important intercellular regulators.

d) The elucidation of the cell cycles and the manner in which new agents and analogs modify steps in the cell's replication cycle.

e) The use of cell biological and genetic methods for modifying the cell's response to the action of such controlling factors.

f) The mechanisms of action of known hormones and nutrients in the control of cell replication and differentiation.

g) The application of this knowledge in the effective staging of cells for more efficient use of existing chemotherapeutic agents.

In addition to opening new avenues to cancer therapy, the knowledge derived from these approaches to the biology of growth control has the extra advantage of being widely applicable to other growth dyscrasias such as vascular and kidney disease, nerve regeneration or replacement, immune defects, and aging.

LIST OF MEMBERS OF THE NATIONAL PANEL ON THE CONQUEST OF CANCER; STAFF MEMBERS OF THE SPECIAL STAFF TO THE PANEL

Mr. Benno Schmidt, managing partner, J. M. Whitney & Co., 630 Fifth Ave., New York, N.Y., 10022; *Chairman.*

Dr. Sidney Farber, director of research, Children's Cancer Research Foundation, 35 Binney Street, Boston Mass. 02115, *Cochairman.*

Mr. I. W. Abel, president, United Steelworkers of America, 1500 Commonwealth Building, Pittsburgh, Pa. 15222.

Mr. William McC. Blair, Jr., general director, the John F. Kennedy Center for the Performing Arts, 726 Jackson Place, N.W., Washington, D.C. 20566.

Mr. Elmer Bobst, chairman of board, Warner Lambert Pharmaceutical Co., 7 East 60th Street, New York, N.Y. 10021.

Dr. Joseph Burchenal, vice president, Sloan-Kettering Institute for Cancer Research, 410 East 68th Street, New York, N.Y. 10021.

Dr. R. Lee Clark, president, M. D. Anderson Institute, 6723 Bertner Avenue, Houston, Tex. 77005.

Dr. Paul B. Cornely, president, American Public Health Association, 520 W Street NW., Room 2400, Washington, D.C. 20001.

Mr. Emerson Foote, 185 East 85th Street, New York, N.Y. 10028.

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Dr. Henry S. Kaplan, chairman, Department of Radiology, Stanford University Medical Center, Stanford, Calif. 94305.

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Dr. Joshua Lederberg, professor of genetics, Stanford University School of Medicine, Stanford, Calif. 94305.

Mr. Emil Mazey, secretary-treasurer, United Automobile Workers, 8000 Jefferson Ave., Detroit, Mich. 48214.

Mr. Mike O'Neill, managing editor, New York Daily News, 220 East 42d St., New York, N.Y. 10017.

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Dr. Jonathan E. Rhoads, chairman, department of surgery, University of Pennsylvania School of Medicine, 3400 Spruce St., Philadelphia, Pa.

Dr. Harold P. Rusch, professor of cancer research, McArdle Laboratory, University of Wisconsin, Madison, Wis.

Dr. Wendell G. Scott, clinical professor of radiology, Washington University, 100 North Euclid Ave., St. Louis, Mo.

Mr. Lew Wasserman, president, Music Corp. of America, Inc., Universal Studios, Universal City, Calif.

Staff:

Mr. Robert F. Sweek, director of special staff.

Mr. Carl M. Fixman, deputy director.

Mr. John A. Grimes, editorial director.

The Panel of Consultants has established four subpanels. These panels, their areas of study and their members are:

Subpanel No. 1—State-of-the-art:
Dr. Rhoads, chairman.
Mr. Blair.
Dr. Hutchinson.
Dr. Rusch.
Dr. Scott.

Subpanel No. 2—Current program and personnel evaluation:
Dr. Burchenal, chairman.
Dr. Cornely.
Mrs. Hoffman.
Mr. Rockefeller.
Mr. Schmidt (also No. 3).
Dr. Kaplan.

Subpaned No. 3—Delineate areas of greatest importance:
Dr. Farber, chairman.
Dr. Holland, acting chairman.
Mr. Foote.
Dr. Krim.
Dr. Lederberg.
Mr. Schmidt (also No. 2).

Subpanel No. 4—Coordination, communications and program implementation:
Dr. Clark, chairman.
Mr. Bobst.
Mr. Funston.
Dr. Garb.
Mr. Mazey.
Mr. Parten.
Mr. O'Neill.

FUTURE CHOICES FOR THE NATION

Mr. FULBRIGHT. Mr. President, one of the most eloquent newspaper columns I have seen on the subject of what has happened to the Nation and the choices confronting us in the future was published in the Dermott News, an Arkansas weekly.

The column was written by Dan Harrison, a successful insurance agent and respected member of the Dermott community, who writes a weekly column for the News.

He demonstrates a keen insight into our Nation's problems and makes clear the futility and senselessness of more weaponry and more war.

Mr. Harrison writes:

Some day some nation is going to have to lead the way in truth, honor and mutual confidence among the nations of the earth and in discarding the old, bloody, brutal, savage pathway of war. I covet that honor for my country . . .

This is an excellent article which I strongly commend to all. I ask unanimous consent that it be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

DAN'S CUBBYHOLE

(By R. D. (Dan) Harrison)

"And now we are trying to take this helpful effort to Cambodia and Laos."

This statement is reported as having been made by William W. Ford, retired Army General, to a group of antiwar businessmen in Washington, D.C. after he had told them that there are four hundred thousand prostitutes and one hundred thousand amputees in South Vietnam. What good news it must be to the inhabitants of Cambodia and Laos to learn that they are to be the recipients of such beneficial endeavors on our part.

I believe it was General Sherman who said that "War is Hell". In what other way could it be described when one considers the statement made by the chief counsel for William W. Calley, Jr., when he is reported to have said that Lieutenant Calley did not think that he was killing "humans" at My Lai. This also seems to have been the attitude of Adolph Hitler when he ordered the assassination of millions of Jews during World War II.

It matters not how much justification that the United States or any other nation can show for the fighting of any war, the sad fact is that those who participate in battle and who witness dead and wounded men being brought out on stretchers cannot help but become hardened and calloused to a degree that they become more or less indifferent to the suffering of others. Their training conditions them to kill, and the bigger the body count of the enemy killed the more gloriously successful they have been. Without this conditioning to kill there could be no war.

Man has spent thousands of years getting civilized, only to discover that he is still a savage. And man's ability to kill has been vastly improved over the ages. The stone ax and the crude knife became the sword and the spear. The sword and the spear, in turn, became the cannon and the "backbuster", and they were finally replaced by the atomic and hydrogen bombs. We can now kill millions with a single bomb. This bomb can be loaded into the belly of a jet plane and, within the matter of just a few hours, be dropped anywhere on earth.

The United States dropped the first atomic bombs. It is reported that only something over one hundred thousand people were killed in these two strikes, but we can do much better than that now. Our weapons become bigger and more fearful every day, and the fact that radioactive fallout may jeopardize the lives of millions seems to have been of little consequence to us until recently when we have begun to be concerned about the harmful effects of all kinds of pollution.

With all of these monstrous weapons possessed by the United States, Russia, and all other nations of the world are we any safer than were our primitive ancestors who fought with the sword and the spear? My positive and unequivocal answer to this is "NO" in large capital letters. Our horizons have been expanded and our neighborhood has now become the whole wide world. But we, along with the other leading nations of the world, have largely dissipated our substance in our monstrous race for bigger and better weapons. We keep getting ready to kill. I am fearful, however, that the world could be getting ready to commit suicide, for that is what another all-out war would be.

No nation can live unto itself alone. It is equally true, however, that no nation can run the affairs of the entire world. I would suggest therefore, that it might be well for us to take a good dose of minding our own business. Teddy Roosevelt once said: "Speak softly, be a good neighbor, but carry a big stick." We have the big stick, and the entire world knows that we have it. Why continue to annoy the world, therefore, by the testing of new and bigger atomic devices or of the development of bigger and better machines of war? This encourages the other big powers of the world to do likewise, and it might give the smaller nations an inferiority complex.

This is my country, and I love it very much. I would like to see it lead, not only in things material, but in things of the spirit and in demonstrated principles and ideals. I would like to see it lead, not merely in confident assertion of rights, but in willing assumption of duties. I would like to see it lead, not by flaunting strength like a giant but by using that strength over a sick and frightened world like a Good Samaritan and in sympathy, understanding, and a reverence for all life. I would like to see it lead in a courageous recognition that the world is a neighborhood and that neighborhood without brotherhood is the most dangerous explosive that has ever been invented.

Some day some nation is going to have to lead the way in truth, honor, and mutual confidence among the nations of the earth and discarding the old, bloody, brutal, savage pathway of war. I covet that honor for my country, the good old U.S.A. If and when that time comes my heart will swell with pride. And my voice shall be raised in a hymn of praise, the title of which shall be, "This Is My Country."

Are you listening?

MIDDLE-AGED AND OLDER WORKERS EMPLOYMENT ACT

Mr. CHURCH. Mr. President, today all age groups have been affected by our widespread joblessness. But, older workers and their families have been especially hard pressed.

There are now more than 1 million unemployed individuals 45 and older. Of this total, 365,000 have been without work for nearly 4 months, and 154,000 have been searching for jobs for more than 6 months.

Many of these individuals, after having been laid off work, are discovering that they lack the necessary skills and training to move into gainful employment. Large numbers have been forced to settle for low-paid work or part-time jobs. Others have just given up, after prolonged periods of unemployment.

Many more also experience problems because: First, they live where there are no longer any jobs, or second, they are seeking the employment of a bygone era.

Yet these mature workers are grossly under-represented in our existing training programs. Last year persons 45 and older accounted for only 4 percent of all enrollees in our Nation's manpower programs—although they represented about 35 percent of the long-term unemployed, 15 weeks or longer. Even in mainstream, with its emphasis on the disadvantaged aged, persons 45 and older comprise barely a majority of all participants. Mr. President, I ask unanimous consent that a table comparing the number of enrollees by age in our Nation's manpower programs be inserted in the RECORD at the close of my remarks.

These statistics, important as they are, still present only a small portion of the overall grim picture for the mature worker. But when we translate these figures into human beings, they take on an added dimension which must concern us all very deeply.

For these individuals, the Middle-Aged and Older Workers Employment Act can mean a new lease on life. It can help to place them in the mainstream of our work-oriented society by providing training, counseling, and supportive services. Moreover, the special recruitment and placement services can mean the difference between long periods of joblessness and gainful employment. In my own State of Idaho, it is estimated that this bill could help approximately 1,400 persons back to work again.

Lack of employment and training opportunities for these mature workers is not only a personal tragedy; it is also wasteful of our human talent and resources. Much more can be gained, I strongly believe, through a national effort to raise our productive capacity and to provide new jobs—as well as related manpower services—for middle-aged and older workers.

In the Senate Committee on Aging's report early this year on the "Economics of Aging," one of the major recommendations urged was "that a middle-aged and older workers employment act be promptly enacted and fully funded." As chairman of that committee, I shall continue to work for that goal. In the very near future, I shall conduct further hearings on the special employment problems of older workers, as well as the impact of unemployment of their pension coverage.

Mr. President, I urge the early passage of the Middle-Aged and Older Workers Employment Act, and ask unanimous consent that a summary of its provisions, together with other pertinent data, be printed in the RECORD.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

MIDDLE-AGED AND OLDER WORKERS EMPLOYMENT ACT

MAJOR PROVISIONS

Establish a comprehensive Midcareer Development Service program (administered by the Department of Labor) for middle-aged and older persons.

Provide training, counseling, and other supportive services for persons 45 and older to upgrade their work skills.

Train personnel to become qualified to train and retrain mature workers.

Provide recruitment and counseling services in communities where a substantial number of middle-aged and older workers are unemployed because of a plant closedown or permanent large scale reduction in the labor force.

Assist nonprofit volunteer agencies in increasing employment opportunities for individuals 45 and older.

Authorize a wide range of research and demonstration projects to provide new employment opportunities for mature workers and to seek solutions to problems hindering their employment.

Provide for studies to consider ways to provide part-time employment opportunities for older workers in the executive branch and to consider the feasibility of job redesign to increase employment opportunities for older persons.

UNEMPLOYMENT SITUATION FOR PERSONS 45 AND OLDER

1. Unemployment—1,062,000 (Up 78 percent since January 1969).

2. Long-Term Unemployment (15 weeks or longer)—365,000 (Up 217 percent since January 1969).

3. Very Long-Term Unemployment (27 weeks or longer)—154,000 (Up 221 percent since January 1969).

WHY IS THE MIDDLE-AGED AND OLDER WORKERS EMPLOYMENT ACT NEEDED

Under present training and employment programs, the emphasis has been on youth. By whatever barometer one would choose to use, the middle-aged and older worker is under-represented in our present manpower efforts. For example, persons 45 and older now comprise about 22 percent of our total unemployment; they represent 34 percent of the long-term unemployed (15 weeks or longer); they constitute 40 percent of all persons without jobs for 27 weeks or longer; and they represent about 38 percent of the civilian labor force. Yet, they constitute only about 4 percent of all enrollees in manpower and training programs. Without specific statutory direction, their special employment and training needs will probably continue to be overlooked or ignored.

ENROLLEES IN MANPOWER PROGRAMS, BY AGE GROUP, FISCAL YEAR 1970

[Amounts in thousands]

Program	First time enrollments				
		Under age 22		Age 45 and over	
	Total	Percent	Number	Percent	Number
Total, all programs	1,051.4	68	716.8	4	46.3
Manpower Development and Training Act:					
Institutional	130.0	37	48.1	9	11.7
OJT	91.0	35	31.9	11	10.0
Job opportunities in the business section	86.8	47	40.8	4	3.5
Concentrated employment program	110.1	41	45.1	8	8.8
Work incentive program	92.7	23	21.3	6	5.6
Operation mainstream	12.5	4	5.0	51	6.4
New careers	3.6	21	.8	7	.3
Youth programs:					
Neighborhood Youth Corps:					
In-school	74.4	100	74.4		
Out-of-school	46.2	98	45.3		
Summer	361.5	100	361.5		
Job Corps	42.6	100	42.6		

CHAOS IN DAVIS-BACON POLICY AND FEDERAL-STATE RELATIONS

Mr. KENNEDY. Mr. President, I am distressed to learn that the Nixon administration has threatened to withhold all Federal construction funds for Massachusetts and other States until they bring their own Davis-Bacon laws into compliance with President Nixon's proclamation suspending the Federal Davis-Bacon Act.

The situation is intolerable. Urgently needed funds for hospitals, schools, housing, roads, and countless other federally-assisted projects will be delayed and denied until the issue is resolved. Thousands of construction workers will be laid off. The same dismal situation will apply wherever local Davis-Bacon laws continue in force, in spite of the President's action suspending the Federal law.

The situation is all the more distressing because it was so obviously unintended. The hasty and ill-considered decision to suspend the Federal act was reached at the eleventh hour in Florida last month, when organized labor called the administration's bluff about imposing a wage freeze on the construction industry. Now, the administration has painted itself into a corner in which it has only two choices—either to allow State Davis-Bacon laws to continue in effect, thereby totally nullifying the President's action, or to impose blanket cut-offs of Federal funds for construction projects in States that fail to abrogate their own labor laws.

To be sure, the administration makes the legal claim that the President's proclamation has the effect of preempting inconsistent State and local laws, but that result is far from clear, and will take months of litigation and controversy to resolve, involving even the Supreme Court itself.

In effect, the President is challenging the independence and autonomy of every State legislator, demanding that the States conform their laws to Federal policy. It is difficult to believe that this administration, pledged as it is to greater responsibility for State and local governments, is actually pursuing such a crude and heavy handed policy of Federal domination.

I therefore call on the administration to reconsider its ill-advised construction policy, before irreparable damage is felt by cities and communities throughout the Nation. It may well be that the only course left open to the President is to rescind the Davis-Bacon proclamation. Surely, this course is preferable to an unfair and arbitrary fund cut-off of Federal construction funds for Massachusetts and other affected States.

We know that cleaner and more effective Federal remedies can be devised for the problem of inflation in the construction industry. It is long past time for the administration to admit its mistake and begin to do the job properly.

Mr. President, on Monday of this week I wrote to Mr. George P. Shultz, Director of the Office of Management and Budget, urging him to take immediate steps to end this crisis in Federal-State relations. I ask unanimous consent that my letter to Mr. Shultz may be printed in the RECORD. I also ask unanimous consent that the following items may be printed in the RECORD: A memorandum to all State attorneys general setting forth the position of the Department of Labor and the Department of Justice on the preemption issue, two recent articles from the Boston Globe answering threatened Federal fund cut-offs until State laws are in compliance with Federal laws, and a letter from the Federal Highway Administration to the department of public works in Massachusetts announcing the threatened fund cut-off for highway projects.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

HON. GEORGE P. SHULTZ,
Director, Office of Management and Budget, Executive Office of the President, Washington, D.C.

DEAR MR. SHULTZ: I am deeply concerned that the Administration's hard-line pursuit of its Davis-Bacon policy is leading the country to the brink of a nationwide crisis in the construction industry and in Federal-State relations. I believe that immediate action is required by your office to clarify the situation and eliminate the danger of this dual catastrophe.

The situation has come to a head because in many States—perhaps as many as half the States—the President's Proclamation of February 23, suspending the Federal Davis-Bacon Act will be completely nullified unless the State Governor or the State legislature acts to suspend the state version of the Davis-Bacon law. In response to the likelihood that the President's Proclamation will be nullified in some States, it is my understanding that the Administration is holding up, or is threatening to hold up, all Federal construction funds, unless and until these States take whatever action is necessary to conform their own laws to federal policy.

It appears that there are four categories into which a State law may fall:

In States like Mississippi, the State may have no Davis-Bacon Act of its own, in which case no problem arises, and Federal construction projects may continue in full accord with the intent of the President's Proclamation.

In States like Maine and Rhode Island, the State law is tied to the Federal Davis-Bacon Act, and is automatically suspended by the President's Proclamation. Here also federal construction projects may continue in full accord with the intent of the President's Proclamation.

In other States, the State law is not automatically suspended, but the State Governor has the power to suspend the State law. In this case, the state law continues in force until the Governor acts.

In States like Massachusetts, New Hampshire, Delaware and Wisconsin, the State law is not automatically suspended, and can be suspended only by the State legislative process. In this case, the state law continues in force until new state legislation is enacted to implement the President's Proclamation. Indeed, in some States, like New York, it appears that the changes cannot be accomplished except by amending the State Constitution.

It is the latter two situations that have caused the current crisis. Apparently, in order to prevent the nullification of the President's Proclamation in such states, the Department of Labor and the Department of Justice have adopted the legal position that the Proclamation "pre-empts" State law, thereby, in effect, overriding any inconsistent state provisions. I gather that this Federal interpretation has been communicated to each State Attorney General, with a cover memorandum expressing the "desire" that the States should reach a similar legal interpretation.

It is also my understanding that, as a sanction to insure compliance with this interpretation, Federal agencies are now withholding Federal funds for construction projects in States where laws are not yet in compliance with the President's Proclamation.

Surely, whatever the wisdom of the President's action on its own merits in attempting to secure lower wages on construction projects by suspending the provisions of the Federal Davis-Bacon Act, it is unthinkable to use the President's Proclamation to impose a blanket cut-off of all Federal construction funds for States that fail to bring their own laws into compliance with the Proclamation. It is equally unthinkable to rely on the dubious legal doctrine of preemption as a justification for this severe sanction.

Already, it is clear that many States are unwilling to capitulate to the Administration's ultimatum. If the Administration adheres to its present course, thousands of construction projects throughout the nation will be delayed, and tens of thousands of workers will lose their jobs, while the complicated legal issues involved in the situation are decided by the courts.

At the very least, I urge the Administration to ease this crisis by making clear that Federal construction funds will not be delayed or denied to any state pending a court resolution of the Administration's legal claim. Hopefully, the Administration will embrace this position before States are obliged to seek court injunctions to preserve the status quo and the flow of Federal funds.

Since the question is of great urgency, I would expect that a test case could be expedited to the Supreme Court within a matter of weeks.

Obviously, however, even if this course of action is followed, the Administration faces the dilemma of finding the Davis-Bacon Proclamation applicable in some states, not in others, with all the resulting unfairness that would be entailed for millions of American working men.

It may well be, therefore, that the only valid solution of the crisis is for the President to withdraw the Davis-Bacon Proclamation, in light of the serious and obviously unanticipated problems that have arisen in the wake of efforts to enforce it. Indeed, because my strong reservations about the wisdom of the Proclamation in the first place are now reinforced by the immense confusion that has been generated, I hope that this is the policy that the Administration will adopt.

Sincerely,

EDWARD M. KENNEDY,
Member of Congress.

U.S. DEPARTMENT OF LABOR,
OFFICE OF THE SOLICITOR,
March 1, 1971.

Memorandum to all States' Attorneys General

Subject: Suspension of Davis-Bacon Act and Related Acts

On February 23, 1971, President Nixon suspended for an indefinite period the provisions of the Davis-Bacon Act of March 3, 1931 (46 Stat. 1494, as amended), as well as the provisions of all other Federal acts for the payment of wage rates on federally assisted projects which are dependent upon prevailing wage determinations by the Secretary of Labor under the Davis-Bacon Act.

The effect of that action was to remove from all federally involved construction contracts entered into on or after February 23, 1971, all otherwise applicable Federal requirements that laborers and mechanics be paid at least the wage rate determined by the Secretary to be prevailing for their crafts.

In addition, and as indicated in the attached memoranda, it is our judgment that all State-required wage standards provisions have been rendered inapplicable for the duration of such suspension to federally involved construction contracts on which the wage payment requirements of the Federal statutes and regulations have been suspended. We trust that you will reach a similiar judgment in order that conflicts between the President's suspension action and your state requirements may not arise over federally involved construction contracts.

Enclosed for your ready reference are copies of the President's Proclamation and explanatory statement, and copies of memoranda of law from this office and the Office of Legal Counsel, Department of Justice, concerning the effect of the suspension on the application of State prevailing wage requirements.

If we can be of assistance to you, please do not hesitate to call upon us.

PETER G. NASH,
Solicitor of Labor.

U.S. DEPARTMENT OF LABOR,
OFFICE OF THE SOLICITOR,
February 26, 1971.

MEMORANDUM OF LAW

(Effect of the Presidential Proclamation of February 23, 1971, Suspending the Davis-Bacon Act and Related Wage Statutes, on the Application of State Laws to Federally-Assisted Construction Projects)

I. THE QUESTION

Can State "Davis-Bacon" laws now apply to Federally-assisted construction work which was subject to wage standards provisions dependent upon Davis-Bacon wage determinations by the Secretary of Labor prior to the suspension of such provisions by Presidential Proclamation of February 23, 1971?

II. THE CONCLUSION

The weight of authority supports the conclusion that States are now preempted (in effect a "negative" preemption) from applying their prevailing wage standards laws to Federally-assisted construction work subject to DBRA wage protections prior to February 23, 1971.

III. PERTINENT PROVISIONS

(A) The Davis-Bacon Act.

Section 6 of the Davis-Bacon Act provides that—

"In the event of a national emergency the President is authorized to suspend the provisions of this Act."

(B) Reorganization Plan No. 14 of 1950 (63 Stat. 203; 5 U.S.C. Supp. III, §133z note) is designed to assure coordination of administration and enforcement of the affected labor standards provisions under the various statutes affecting Federally-assisted construction by placing regulatory and investigative functions in the Secretary of Labor.

(C) Presidential Proclamation of February 23, 1971. The Presidential Proclamation of February 23, 1971, suspends "as to all contracts entered into on or subsequent to the date of this Proclamation" and thereafter until provided otherwise—"the provisions of the Davis-Bacon Act of March 3, 1931, as amended, and the provisions of all other acts providing for the payment of wages, which provisions are dependent upon determinations by the Secretary of Labor under the Davis-Bacon Act.

Also suspended as to all such contracts until otherwise provided are—"the provisions of any Executive Order, proclamation, rule, regulation or other directive providing for the payment of wages, which provisions are dependent upon determinations by the Secretary of Labor under the Davis-Bacon Act".

The Proclamation also contains the following statement, in the nature of a "finding":

"The Davis-Bacon Act and other acts dependent upon it frequently require contractors working on federally involved projects to pay the high negotiated wage settlements to mechanics and laborers, thereby sanctioning and spreading the high rates and thus inducing further acceleration contributing to the threat to the nation's economy."

(D) Presidential Statement. The Press Release issued by the White House at the time the President signed the Proclamation contains several statements pertinent to the issues involved in this paper.

First, it points out that the action taken "is based on the principle that government programs which contribute to excessive wage and price increases must be modified or rescinded in periods of inflation (page 1, paragraph 1). Secondly, it concludes that the Act is being suspended "because of emergency conditions in the construction industry" (page 3, paragraph 3).

IV. DISCUSSION

(A) Legislative History. The provisions of the Act itself provide no clue in the resolution of the question posed. Further, the legislative history of the emergency provisions (§ 6) is extremely sparse. The identical provision was contained in the original 1931 Act and inserted on the House floor in the vetoed version of the 1932 amendments. At that time the statement was made: "Mr. Whittington. Mr. Chairman, I call attention to this important and significant fact: The Davis-Bacon Act contains this identical provision. It is absolutely imperative that it should be in the pending bill. Suppose we have a flood on the Sacramento or the Colorado River or the Mississippi. The President of the United States ought to have the same authority that he has under the Davis-Bacon Act to suspend the operation of this law temporarily. . . ."[1] The provision did appear in the 1935 version of the Act. Intervening legislative history indicates that on a prior occasion the President had suspended the Act temporarily when confusion arose over the wage scales on public projects, only to revoke that suspension and restore the operation of the Act when conditions had clarified.[2]

(B) THE SUPREMACY DOCTRINE.

(1) The Constitutional Provision. The Constitution of the United States, together with laws made in pursuance thereof are, by the express declaration of Article 6, § 2, made the Supreme law of the land.[3] This does not, of course, preclude the exercise of State power in all situations dealt with by the Federal Constitution or a duly enacted Federal statute. On the contrary, the Supreme Court at an early date laid down a broad formula which from that time has been the general principle governing the possibility of State exercise of power. The Court held that the States may exercise concurrent or independent power with the Federal Government in all cases except where—

1. The power is lodged exclusively in the Federal Constitution.

2. The power is given to the United States and prohibited to the States.

3. From the nature and subject of the power, it must necessarily be exercised by the national government.[4]

(2) Court Decisions Further Construing the Supremacy Doctrine and Supporting Preemption.

As a general proposition the courts have refused to presume that a Federal statute is intended to supersede the exercise of power by a State unless there is a clear manifestation of intention to do so (*Schwartz v. State of Texas*, 344 U.S. 199). Nevertheless, Federal legislation "must not be read in a spirit of mutilating narrowness." "Hospitable scope" must be given to Congressional purposes "even when meticulous words are lacking." (*United States v. Hutcheson*, 312 U.S. 219). The rationale in *Hutcheson* is particularly significant since it dealt with State efforts to frustrate Federal policy through action in an area not expressly dealt with by the Federal law.[5]

In *Hill v. Florida*, 325 U.S. 538, 550, the Court expanded on the principle enunciated in *Hutcheson*. In the *Hill* case a State was denied the exercise of power to fix the qualifications of labor union representatives upon a showing that one of the basic purposes of the National Labor Relations Act would be frustrated if the State action were permitted. Cf. *Nash v. Florida Industrial Comm.*, 389 U.S. 235; *Florida Lime and Avocado Growers v. Paul*, 373 U.S. 132, rehearing denied 374 U.S. 858; *Fitzgerald v. Catherwood*, 388 F. 2d 499 (C.A. N.Y.), cert. denied 391 U.S. 934. See also *Maryland v. Wirtz*, 392 U.S. 183.

The application of the supremacy clause and the doctrine of Federal preemption by the Supreme Court is increasingly a matter of statutory construction—a determination of whether State regulations can be reconciled with the language and policy of Federal enactments. Once the Congress has acted in a certain area, however, the concern of the Court is not an inquiry into the "precise nature and degree of federal-state conflict involved, and more particularly what exact mischief such a conflict would cause . . ." but rather, "the potential conflict of two law-enforcing authorities, with the disharmonies inherent in two systems, one federal,

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Footnotes at end of article.

the other state, of inconsistent standards of substantive law and differing remedial schemes.[6]

In trying to avoid such conflict, the Court has been mindful of the problem that, "A multiplicity of tribunals and a diversity of procedures are quite as apt to produce incompatible or conflicting adjudications as are different rules of substantive law.[7] The Court has supported this principle even where the Federal Government has declined jurisdiction over an area it regulates.[8] In so doing, the Court pointed out that specific statutory provision for the national authority to enter into agreements with States to cede its authority was the exclusive means by which States may be enabled to act concerning the matters Congress had entrusted to the National Labor Relations Board. The Court pointed out that the specific provision was enacted in response to its decision under the former Wagner Act that Federal policy prevailed over State provisions with regard to declining jurisdiction over unions of foremen in the absence of any delegation of jurisdiction by the Federal board.[9]

The thrust of these cases was most recently followed in *International Longshoremen's Association, Local 1416, AFL–CIO* v. *Ariadne Shipping Co., Ltd., et al.*, 397 U.S. 195 (1970). There the Court (Mr. Justice Brennan) found the state-enjoined picketing "arguably subject" to regulation under the Federal Act and thus the NLRB's jurisdiction was exclusive and preempted that of the Federal courts. Mr. Justice White in a concurring opinion stated (p. 202) that so long as employers are denied effective determination by the NLRB as to whether "arguably protected" picketing is actually protected, he would hold that only "labor activity determined to be actually, rather than arguably, protected under federal law should be immune from state judicial control."

Perhaps the broadest occupation of a field under a Federal statute where States have exercised legislative authority could be implied from the holding in *Pennsylvania* v. *Nelson*, 350 U.S. 497 (1956), where drawing upon its holdings with regard to occupation of the field in the commerce cases, the Court held that federal legislation regulating communist activity had superseded the sedition statutes of the States. It held that the States cannot punish sedition directed against the United States Government; but declared that they remained free to punish offenses involving a local breach of the peace. In *Uphaus* v. *Weyman*, 360 U.S. 72, the Court, however, offers the dictum that *Nelson* did not deprive the States of the right to punish sedition directed against themselves, dictum which might support a finding that States may apply their wage provisions on construction not involving Federal assistance. However, where Congress and the administrators have expressed a policy with regard to application of funds under a Federal grant welfare program, inconsistent State regulation is invalid.[10]

Closely in point is *Paul* v. *United States*, 371 U.S. 245, in which the Court held that a State regulatory scheme fixing the minimum wholesale price on milk—including milk purchased by a military installation solely for military consumption—was preempted by the Federal procurement statute and regulations thereunder. The established Federal procurement policy, the Court found, demanded competition in the purchase of milk by military installations for military consumption; the California policy effectively eliminated such competition and thus defeated the command to Federal officers to procure supplies at the lowest cost.

In concluding that the Supremacy clause of the Federal Constitution barred California from enforcing its regulations, the Court also noted that, under the Federal statute when a purchase contract is negotiated because it is impracticable to obtain competition, the State agency, not the Federal procurement officer and the seller, would determine the price provisions of the contract if State policy prevailed, a clear "collision between the Federal policy of negotiated prices and state policy of regulated prices". The *Paul* case is particularly significant in terms of the issues involved in this memorandum since—like the general Federal procurement statutes—the Davis-Bacon Act and related statutes involve a proprietary function of the Federal government.

C. SUMMARY

The weight of authority thus supports the conclusion that the President's Proclamation of February 23 preempted the States from applying their wage determinations to Federally-assisted construction work which was subject to Federal wage standards prior to that date. That there is a conflict between the purpose of the President's action in invoking his authority under section 6 of the Davis-Bacon Act to suspend the Act and the application of State wage determinations to Federally-assisted work is plain. Such application would be contrary to the Congressional intent expressed in Reorganization Plan No. 14 for uniformity of regulation and administration of the labor standards provisions in the affected statutes. Such application would frustrate the purpose of section 6 in authorizing suspension of the Davis-Bacon Act. It would not only not permit "unhampered effectuation" of Federal objectives; it could almost completely nullify the effectiveness of the President's action designed to hold down the inflationary spiral of wages in the construction industry. Where there is such a conflict the requirements of Article VI of the Constitution control so that State power must be denied.

To hold that State action is preempted by the President's Proclamation under section 6 of the Act would not be a "sterile and harmful insistence on exclusive federal power" (*Cloverleaf Butter Co.* v. *Patterson*, 315 U.S. 148, 175), but a preservation of the fundamental purpose and intent of section 6.

PETER G. NASH,
Solicitor of Labor.

FOOTNOTES

[1] Cong. Rec. Vol. 75, p. 12388, June 8, 1932.

[2] 1935 Senate Report, Part 3 (pursuant to S. Res. 228) p. 10. While the issue is not necessarily within the ambit of this paper, it seems clear that the Presidential finding that the high wage rates determined under the Davis-Bacon Act induce "further acceleration contributing to the threat to the Nation's economy"; that Government programs which contribute to excessive wage and price increases must be modified or rescinded in periods of inflation; and that the Act is being suspended because of emergency conditions in the construction industry constitute adequate findings in support of the President's declaration of a national emergency. Given the fact that "all levels of government together account for almost one-third of the total construction expenditures" (Statement of the President, p. 2, paragraph 4), there is little doubt that the President's declaration of a national emergency within the meaning of section 6 of the Act is legally supportable.

[3] *Panhandle Steel Co.* v. *Miss.*, 277 U.S. 218; *Hawke* v. *Smith*, 253 U.S. 221; *Buchanan* v. *Warley*, 245 U.S. 60; and a whole series of State court decisions.

[4] 6 Am. Jur. 442, citing *Gilman* v. *Philadelphia*, 3 Wall. (U.S.) 713, summarizing language in which Mr. Justice Story originally formulated this group of principles in *Houston* v. *Moore*, 5 Wheat. (U.S.) 1.

[5] The Court's holding: When Congress immunized labor disputes from injunctions in the Norris-LaGuardia Act it could not have intended, although the Act dealt only with injunction proceedings, to leave such disputes subject to criminal prosecutions and suits for damages under State law.

[6] Mr. Justice Frankfurter in the Opinion in *San Diego Building Trades Council, et al.* v. *Garmon, et al.*, 359 U.S. at p. 242.

[7] Mr. Justice Jackson in the Opinion in *Garner, et al., trading as Central Storage & Transfer Co.* v. *Teamsters, Chauffeurs and Helpers Local Union No. 776 (A.F.L.) et al.*, 346 U.S. at p. 491.

[8] *Guss* v. *Utah Labor Relations Board*, 353 U.S. 1 (The "no man's land" problem created here was dealt with in the Labor-Management Reporting and Disclosure Act of 1959 (P.L. 86–257), 29 U.S.C. 164(c)(2)).

[9] *Bethlehem Steel Co.* v. *New York Labor Board*, 330 U.S. 767.

[10] *King, Commissioner, Department of Pensions and Security, et al.* v. *Smith, et al.* 392 U.S. 309 (1968) with regard to Alabama's "substitute father" rule under the Aid-to-Dependent Children Program.

DEPARTMENT OF JUSTICE,
March 1, 1971.

MEMORANDUM FOR HONORABLE PETER NASH
Solicitor of Labor

Re: Effect of Suspension of Davis-Bacon Act on State "Davis-Bacon" Laws.

We have reviewed the memorandum of February 26, 1971, which you forwarded to us, concluding that the suspension of the Davis-Bacon Act by Proclamation No. 4031 of February 23, 1971 precludes the States from applying their own "Davis-Bacon" provisions to federally-assisted construction.

It is not entirely clear from the memorandum whether its conclusion is limited to federally-assisted construction projects which are subject to statutory provisions (*e.g.*, 12 U.S.C. 1701q(c), 20 U.S.C. 848, 42 U.S.C. 2685, 3107) requiring the payment of wages determined in accordance with the Davis-Bacon Act (hereinafter referred to as "Davis-Bacon extension statutes"). If the conclusion is so limited, we would concur in it. If, on the other hand, the conclusion encompasses all federally-assisted construction regardless of whether a Davis-Bacon extension statute applies, we cannot concur.

The Davis-Bacon Act and the Davis-Bacon extension statutes are designed to provide a federal wage floor in construction contracts in which the federal government has an interest. When an emergency dictates that this wage floor be removed in the national interest, the President has the power to do so. By the Proclamation of February 23, 1971 the President has suspended the Davis-Bacon Act and the Davis-Bacon extension statutes thus removing the wage floor.

While the Davis-Bacon Act is not a preemptive statute in the broad sense of the word, it is our view that the suspension provision (40 U.S.C. 276a–5) does preclude a State from imposing its "Davis-Bacon" requirements on construction otherwise subject to the Davis-Bacon Act or a Davis-Bacon extension statute. Any other conclusion would subvert the whole purpose of the suspension provision. If the States had the power locally to undo what the President has found necessary in the national interest, then the suspension provision would be rendered impotent. Such a result, in our opinion, would be illogical. If suspension has any meaning at all with respect to the construction contracts covered, it must mean

that there will be no wage floor, federal or State, for the duration of the suspension.

Construction contracts not covered by the Davis-Bacon Act or Davis-Bacon extension statutes present a very different issue. Where the Congress has not seen fit to impose a wage floor, despite the involvement of federal funds, the States are free to impose their own wage floors. The State action with respect to such contracts is not, in our opinion, affected by the suspension. If the initial federal interest was not sufficiently great to impose a federal wage floor, then it would not appear great enough to preclude a State-imposed wage floor. In areas where federal law has not previously imposed an affirmative wage requirement, it would be anomalous to suggest that it might nevertheless impose a negative requirement, precluding the operation of State law.

Accordingly, if the conclusion in the memorandum furnished is limited to contracts covered by the Davis-Bacon Act and Davis-Bacon extension statutes, we concur in the view that a State may not substitute its wage floor for the suspended federal wage floor. We would not agree, however, that this concept could be extended to federally-assisted construction which has not previously been subject to a Davis-Bacon extension provision.

(S) WILLIAM H. REHNQUIST,
Assistant Attorney General,
Office of Legal Counsel.

CONTRACTOR PAY DISPUTE PERILS ROAD

(By A. S. Plotkin)

The state Department of Public Works had hoped to get started soon on demolishing 40-odd structures in the corridor of the proposed Southwest Expressway.

There had been a tentative agreement with a committee representing community groups and with the governor's office that the vacant, vandalized buildings in Jamaica Plain, Roslindale and other places should come down.

The cost estimate was $100,000. Since the proposed expressway (on which all other work has been "frozen" by the governor's order pending a restudy) is part of the Interstate system, the Federal government would have reimbursed $90,000 to the DPW.

The demolition now appears to be headed for the "freeze" category also—but for a different reason.

The reason is President Nixon's proclamation last month suspending the provisions of the Davis-Bacon Act, which stipulates that contractors on Federal-aided jobs must pay their employees the equivalent of union wages.

Mr. Nixon, attempting to curb inflation by rolling back high wages in the construction trades, also asked those states which have their own equivalent laws to do the same. These laws are in effect in several dozen states—mostly the northern, urban ones where unions are strong.

And, at the request last week of DPW Comr. Edward J. Ribbs, Atty. Gen. Robert Quinn ruled in effect that the Bay State, if it doesn't want to lose millions in Federal aid, must change its minimum wage statutes covering construction trades.

Ribbs estimates that of the $75 million in contracts the DPW had planned to award this year, $50 million would be reimbursed by Washington.

"We want to get going," he said. "But this is serious."

Ribbs has sent to Gov. Sargent a list of all the Federal-aid road projects affected. He appealed to the Federal Highway Administration to exempt the $100,000 for the Southwest Expressway demolition, but this was denied.

Also affected are jobs due to have been advertised for bids soon by the state's Aeronautics Commission and for the University of Massachusetts' medical school complex in Worcester.

If the Davis-Bacon suspension continues for a long period, there could also be a serious effect on new construction by the MBTA—which depends on two-thirds Federal reimbursement for most of its capital work.

There was speculation around Boston last week that the President's move was a deliberate ploy to pass the buck to the states and take pressure off the White House.

This reasoning went that labor would not tolerate the brunt of the wage rollback's being borne by workers in the construction trades—and would maintain that all, unions, industry and consumers, should be involved. Hence, pressure would build—in the states—for wage and price controls, and the Nixon Administration could then claim it would take that drastic step only because of state pressures.

STATE PAY PACTS HIT

(By Arthur Stratton)

Redevelopment authorities of Boston and other areas throughout the state have been advised by the U.S. Department of Housing and Urban Development that they no longer can award construction contracts stipulating prevailing wages must be paid workers.

At stake is the two-thirds cost paid by the federal government for the multi-million dollar urban renewal and redevelopment programs underway in virtually every corner of the state.

HUD Secretary George Romney has directed local agencies that, state laws on payment of prevailing wages notwithstanding, they must adhere to President Nixon's proclamation suspending the Davis-Bacon Act.

The act requires that workers on federal construction projects be paid prevailing wages for that area as determined by the Labor Department. The chief executive suspended it to curb inflationary wage increases in the building trades.

The suspension opens federal contracts, and those at the state and local level are federally-assisted, to bidding with cheaper, non-workers.

Massachusetts has a similar law requiring payment of prevailing wages on public works projects such workers, etc. Now HUD has advised local agencies that the presidential suspension of payment of prevailing wages applies to housing and development as well, regardless of any state law guaranteeing such payment to workers.

Secretary Romney specifically advised Massachusetts area offices of HUD that:

Contracts on which bids have been opened, but award not made prior to Feb. 23, are to be readvertised or the low bid accepted "upon agreement of the low bidder that provision for prevailing wages are to be suspended and waived, and the contract price reduced by the amount of any reduction in his cost of performing the contract which will result from the suspension of the prevailing wage provision."

No provision requiring the payment of prevailing wages determined by the secretary of labor pursuant to the Davis-Bacon Act which was included in any contract executed on and after Feb. 23, 1971, shall be enforced.

The conflict between a 36-year-old Massachusetts law requiring payment of prevailing wages in public works construction, and the President's suspension of the Davis-Bacon act, already has stalled about $75,000,000 worth of this state's highway projects.

In most of these projects, the federal government pays 90 per cent of the cost.

The state Department of Public Works asked Atty. Gen. Robert H. Quinn for a ruling on the conflict and he found that the state law would have to be repealed or amended if the state was not to risk loss of these sizable federal funds.

Only the Legislature can change the law, Quinn added. Organized labor, and the building trades unions in particular, have voiced angry protest to the presidential proclamation. For Massachusetts legislators a proposal to scrap the union minimum equivalent wage requirement would be a highly controversial issue.

DEPARTMENT OF TRANSPORTATION,
FEDERAL HIGHWAY ADMINISTRATION, BUREAU OF PUBLIC ROADS,
Boston, Mass., March 5, 1971.

Mr. EDWARD J. RIBBS,
Commissioner, Department of Public Works,
Boston, Mass.

DEAR COMMISSIONER RIBBS: The following teletype was received this date from our Washington headquarters:

"Reference is made to the President's Proclamation of February 23, 1971, suspending the Davis-Bacon and Related Acts, and to the solicitor of Labor's memorandum of March 1, 1971, to state attorneys-general, wherein he states that in his judgment all state-required wage standards provisions have been rendered inapplicable for the duration of such suspension to Federally involved construction contracts on which wage payment requirements of Federal statutes have been suspended.

"In addition to the deletions of Davis-Bacon provisions as discussed in Swick's wire of February 26, proposals for Federal-aid projects on which bids are opened after March 5, must contain no wage determinations made under the provisions of state statutes or other wage determination processes."

Very truly yours,

_____ _____,
(S) (for E. J. DEPINA,
Division Engineer.)

STATE ADVISORY COMMITTEE ADVISES ABOLITION OF THE SELECTIVE SERVICE SYSTEM

Mr. HATFIELD. Mr. President, by Presidential order, State youth advisory groups to the Selective Service were established nationwide in 1969. The Camden, N.J., Courier-Post reported that the New Jersey youth advisory committee to the Selective Service System unanimously advised the System to expire by December 31, 1971. I think this is one further indication how strongly feelings against conscription are held by the youth in our country and one of the strongest argument for an all-volunteer armed force. I ask unanimous consent that the March 16, 1971, article by Beth Durchschlag, of the Courier-Post staff, be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

[From the Courier-Post, Camden, N.J., Mar. 16, 1971]

YOUTH PANEL ADVISES DRAFT TO GET OUT OF BUSINESS

(By Beth Durchschlag)

TRENTON.—A New Jersey youth advisory committee to the Selective Service system has advised it to go out of business.

In a unanimous vote, the N.J. Youth Advisory Committee to the state Selective Service director has passed a resolution supporting a bill now before Congress to end the draft.

And while telling the parent organization—Selective Service—where to get off, the group of young men and women also introduced a resolution to dissolve their own committee—saying that they are "serving as a public relations gimmick to the youth of New Jersey and the United States."

Both resolutions were introduced at a Saturday meeting by 25-year-old Greg Paulsen, a Rutger's University law student in charge of draft matters for Camden Regional Legal Services.

"The committee was in favor of the resolution to end the draft immediately," commented Paulsen, a Delran resident who was appointed to the group last December. "But they changed the original resolution—which did not call for a study for alternative systems—because they felt that we don't know enough about the alternatives to preclude anything."

The final resolution, adopted by the New Jersey group, which was created by a Presidential order establishing them nationwide in 1969, is the first to tell Selective Service to call it quits by Dec. 31, 1971.

The bill to which the resolution refers is now before the Senate and simply calls for the repeal of the 1967 Selective Service Act by the end of this year.

The youth committee's resolution, in supporting the measure, says that since there are "six months to study the alternative systems to the 1967 Selective Service Act, the Youth Advisory Committee feels that adoption of this resolution is in the best interests of the nation."

But national headquarters of Selective Service was not exactly overwhelmed at the group's advice to look for another job.

"I wasn't even aware of it," a spokesman for the agency said yesterday. "From time to time we've had a young man or woman who feels differently than we do, but we've never had a whole group before.

"By and large our groups are pretty level-headed and work in the public interest. It's unfortunate that this group feels the way it does," the official commented.

The second resolution, scheduled for discussion on April 17 in Trenton, accuses the state Selective Service headquarters with lapses in:

—"voluntarily providing the members with relevant information other than that proffered by national headquarters and the Nixon Administration:

—"elicits comment only on Administration proposals;

—"elicits individual opinions rather than collective opinions which defeats the purpose and undermines the worth of the committee;

—"impedes the function of the committee by cancelling scheduled meetings without notice;

—"(state headquarters) is reluctant to discuss broadening the representative base of the commtitee in order to have more concerned and representative membership;

—"have the members serve as a public relations gimmick to the youth of New Jersey and the U.S.;

—"and have the members serve as a confessor from headquarters to the youth of New Jersey and the U.S."

Paldsen said the state's liaison officer "told us to keep in mind that President Nixon has promised to end the draft by 1973, generally supported the administration and asked for more time."

"But then again there are presently four bills to reform the draft before Congress and the only one the state has given us to consider has been the Administration's bill with Curtis Tarr's (head of selective service) and Mel Laird's (Secretary of Defense) comments attached."

OPPOSITION TO THE SST

Mr. BAYH. Mr. President, I ask unanimous consent to have printed in the RECORD a statement by the Purdue Environmental Action Chapter of the Izaak Walton League in opposition to the SST. The Purdue group wisely concluded that, on national priority grounds, the supersonic transport should not be continued at Government expense.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

STATEMENT OF THE PURDUE ENVIRONMENTAL ACTION CHAPTER OF THE IZAAK WALTON LEAGUE OF AMERICA CONCERNING THE SUPERSONIC TRANSPORT

(Presented by Linda D. Van Liere)

After much investigation and study, the decision concerning the continued funding of the SST becomes one of national priorities. The evaluation of the project should be viewed from the standpoint of human needs; the best decision must be to the advantage of the majority of the American people.

Does our country need a supersonic transport? The airlines says yes and they have the firm support of the aerospace industry. The airlines are losing a great deal of money based on their figures for the cost per person per seat mile to operate an aircraft. It is generally felt that by increasing the number of possible flights in a given time period, the SST would be more economical and therefore the answer to the airlines' financial dilemma. It is said that only the SST can keep the industry from bankruptcy.

Well-known economists, from Milton Friedman to John K. Galbraith, disagree however. With added construction costs, increased fuel usage and maintenance, and the large scale airport improvements needed to commercially fly the supersonic aircraft, it would class as a high economy risk. Lawrence Moss projects that by 1980, the actual fuel consumption of the vehicle would increase to 600 million pounds per day—which raises the U.S. annual crude oil requirement by ⅓. By using twice the fuel per passenger mile as the 747, the SST needs will greatly tax the world's already low supply of fossil fuels thereby raising the cost. The increased costs of operation will not allow a lowering of air fares as supporters propose, in fact fares will more likely to higher making the possibility of air travel available to an even smaller percentage of Americans. If the SST would be so economically feasible and would reap such significant financial rewards, why is it that the airlines are not willing to fund the program with their own dollars? It is interesting that if the SST prototypes are successful, the airlines would pay back the money borrowed from the federal government. However, should the SST not be successful this would not be the case and the "experiment" would be written off at the taxpayer's expense.

Most of the actual effects of SST emissions in the upper atmosphere can only be predictions. But these predictions are not just emotional ones as proponents have implied; they are based on known ecological evidence. The moisture added to the upper atmosphere will increase the likelihood of cloudiness and the particles formed from SO_2, hydrocarbons, and soot will accumulate in the atmosphere. The result will be to raise the surface temperature of the globe by preventing the reradiation of solar energy. This would particularly affect areas beneath heavy air traffic—namely the Northern Hemisphere. There is no statistical data in this regard since testing methods as well as the instrumentation to do that testing are not significantly developed. The testing of the two prototypes, however, can tell little about the cumulative effects of SST emissions—those that could have a drastic effect on our climate.

Very recently a group of 15 atmospheric physicists stated that the supersonic transport pollutants may cause an increase in the ultra-violet radiation at sea level. This could possibly increase the incidence of skin cancer. Another important point, however, is that ultra-violet light causes the breakdown of chlorophyll in green plants! This could have a more far reaching effect of decreasing the rate of world food production at a time when it needs to be greatly increased.

It is true that through research in the field of aerospace much has been learned which is of direct benefit to the average American. Examples include heat resistant china, superior structural materials, and better communication systems. But there are many Americans who are not so "average" and need better housing, better schools, and better hospitals. Our country vitally needs improved mass transportation and pollution control. It might seem more rational to invest the monies proposed for the SST prototypes in programs to develop efficient mass transit systems. This would certainly benefit a much larger segment of our population and represent a more realistic ordering of our national priorities. Engineers needed to build an SST prototype are also needed to solve the problems of our human environment; the latter objective is vital to our well-being as a species.

ISOLATION CELLS ON CON SON ISLAND

Mr. FULBRIGHT. Mr President, on February 21, the New York Times published a news story from Saigon which reported that the United States was paying $400,000 for the construction of 288 isolation cells on Con Son Island, the site of the "tiger cages" discovered some time ago by an inspection team from the House of Representatives."

I wrote to Dr. John A. Hannah, Administrator of the Agency for International Development, which is responsible for this type of assistance, to make appropriate inquiries. He replied on March 16. Because of the interesting information it contains, I ask unanimous consent that the exchange of letters be printed in the RECORD.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

February 27, 1971.

DR. JOHN A. HANNAH,
Administrator, Agency for International Development, Washington, D.C.

DEAR DR. HANNAH: I enclose an item from the *New York Times* for February 21 reporting United States assistance in the construction of new prison facilities on Conson Island, South Vietnam. I would appreciate your providing the Committee with a report on this matter, particularly as to the amount of United States aid involved. Would you also supply information concerning any United States assistance in recent years in the construction of other prison or detention facilities for civilian prisoners.

In this connection, would you also supply

estimates as to the number of civilian prisoners or detainees now being held in South Vietnam who are being held for crimes against the state or who would in our view be looked upon as political prisoners. How many of these are being held on Conson?

Sincerely yours,

J. W. FULBRIGHT,
Chairman.

[From the New York Times, Feb. 21, 1971]

TIGER CAGE CAMP TO GET NEW CELLS—U.S. IS SPENDING $400,000 ON PRISON FOR SAIGON

SAIGON, SOUTH VIETNAM, Feb. 20.—An agency in the United States mission here has contracted for the construction of a prison compound consisting of 288 isolation cells on Conson Island.

The new cells apparently are being built to replace the Tiger Cages, or disciplinary cells, discovered there last summer by United States Congressmen, which became the center of controversy both here and in the United States.

The Military Assistance Command for Civil Operations and Rural Development has contracted the R.M.K.-B.R.J., a United States construction consortium, to build the compound, at a cost of $400,000, to be paid by the United States.

According to Frank E. Walton, who heads the Public Safety Directorate of the command, the cells will augment a series of cells now under construction, bringing the total to 400.

The Conson Prison has long been the detention center for political dissidents.

TO BE "INDIVIDUAL UNITS"

Comparing the new cells with the Tiger Cages, Mr. Walton said they were "smaller, individual units as compared to the larger multiperson Tiger Cages."

Specifications called for a set of "three cell blocks, each partitioned into 96 isolation cells, an outer compound wall of concrete block, a barbed wire perimeter fence with security gates."

Prison labor is to be used. Skilled workers are to be paid 75 cents a week and non-skilled labor 55 cents, a knowledgeable source revealed.

R.M.K-B.R.J. stands for Raymond, Morrison, Knudsen of the West Coast and Brown, Root and Jones of Texas. It has contributed to most of the American military complexes in South Vietnam through its construction of buildings, airport runways and roads. Under recent contracts call for R.M.K.-B.R.J. is building South Vietnamese military support bases.

WASHINGTON, Feb. 19.—The State Department said today that prison cells being installed by an American contractor on the island of Conson off the coast of South Vietnam were designed "according to modern penal standards."

The spokesman said the department understood that there were no prisoners at the old Tiger Cage prison, that all prisoners of war, even those who might have committed crimes, had been removed from the island, and that the new cell blocks would be used only for ordinary criminals.

He said he did not know whether this category would include political prisoners.

DEPARTMENT OF STATE,
AGENCY FOR INTERNATIONAL DEVELOPMENT,
Washington, D.C., March 16, 1971.

The Honorable J. W. FULBRIGHT,
Chairman, Committee on Foreign Relations, United States Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This will acknowledge your letter of February 27, 1971, concerning U.S. assistance to the Government of Vietnam (GVN) in the construction of new prison facilities on Con Son Island and elsewhere in Vietnam, and the number of civilian prisoners or detainees being held at the Con Son Prison or in other GVN incarceration facilities.

There are no A.I.D. funds involved in the new construction at Con Son. The Vietnamese Government undertook to build new maximum security facilities there from their own resources. These consist of four new buildings designed according to more modern penal standards than the old French cells they are to replace. Decision to build the new structures followed severe deterioration of prisoner discipline after the old cells were vacated and the maximum security prisoners were housed among the other prisoners.

The first of the new buildings was completed in December under a "self-help" program of the Vietnamese Government utilizing prison labor. Because of the prolonged period of time required to complete the first building and worsening of discipline problems, a decision was reached by MAC/CORDS in Saigon to assist the GVN construct the remaining three buildings more rapidly. A contract was let through the Officer-in-Charge of Construction, U.S. Naval Facilities Engineering Command, with a U.S. construction company, Raymond, Morrison, Knudsen-Brown, Root and Jones, utilizing local currency piaster funds. The approximate piaster cost of this contract is, we understand, equivalent to $400,000.

With reference to U.S. assistance in the construction of other prison or detention facilities for civilian prisoners, the U.S. has furnished the piaster equivalent of $6,235,000 from 1963 through 1970 for construction and/or renovation of correction and detention facilities throughout Vietnam to assist the GVN in its efforts to provide more adequate and sufficient spaces for prisoners confined to correction and detention facilities. The greater part of these funds (85%) was provided after the Viet Cong offensive at the time of the Tet holidays in 1968.

Records supplied by the GVN reflect that 31,597 civilian prisoners were being held at the end of January 1971 in South Vietnam's correction and detention facilities. Statistics provided by the Vietnamese Directorate of Corrections indicate all are convicted or detained awaiting trial under various civil laws or decrees. Approximately 65% of these are classified as "communist criminals" and 35% as "common criminals" charged with such crimes as murder, larcency, etc. Confined on Con Son are 1,925 GVN "military personnel convicted of civil crimes," 5,832 "communist criminals" and 286 "common criminals," all of whom have been sentenced under Vietnamese laws and decrees.

If we can be of further assistance, please do not hesitate to call upon us.

Sincerely yours,

JOHN A. HANNAH.

THE PRESIDENT'S LEGISLATIVE PACKAGE ON REORGANIZATION OF EXECUTIVE DEPARTMENTS

Mr. PERCY. Mr. President, I am pleased that the President's legislative proposals for revamping the structure of executive departments will tomorrow be placed before the American people and the Congress.

As we all well know, the primary and overriding purpose of these proposals is to make Government more responsive, to reduce the gap between promise and performance. The program outlined today recommends the consolidation of seven departments into four, specifically:

A Department of Human Resources to deal with the social needs of individuals, as members of a family;

A Department of Community Development to serve the needs of both rural and urban communities;

A Department of Natural Resources concerned with preservation and balanced use of the vital resources of our physical environment; and lastly,

A Department of Economic Affairs, overseeing the Nation's prosperity and assuring economic growth.

These recommendations to focus responsibility within the executive branch are non-partisan in nature. While based most immediately on proposals submitted at the end of last year by the President's Advisory Council on Executive Organization, the recommendations reflect the collected wisdom and research of various Presidential task forces over the past three decades. These groups include the President's Committee on Administrative Management, 1937, chaired by Louis Brownlow; the Commission on Organization of the Executive Branch, 1949, chaired by Herbert Hoover; and the second commission chaired by Herbert Hoover of 1955; the Temple University Survey of Federal Reorganization of 1953; the Report on the Status of the Hoover Commission Recommendations by Meyer Kestnbaum of 1956–58; the President's Advisory Committee on Government Reorganization chaired by Nelson Rockefeller, 1953–60; the President's Task Force on Government Organization chaired by Don Price, 1964; the President's Task Force on Government Organization led by Ben Heineman, 1967; the President Elect's Task Force on Organization of the Executive Branch led by Franklin Lindsay, 1968–69; and the President Elect's Task Force on Inter-governmental Fiscal Relations led by Richard Nathan, 1968–69.

I am firmly committed to the theory underlying the President's plan. I expect next week to introduce legislation specifically directed to implementing the purposes of that plan, and hope that many of my colleagues will join me in this important endeavor. My esteemed colleague, the senior Senator from Arkansas, chairman of the Government Operations Committee, has informed me of his intent to have the full committee hold comprehensive hearings on each of these proposals. During the course of those hearings, we will examine in detail the many and diverse ramifications of these proposals and modify and improve them as new factors come to light. In this way we can shape legislation that will achieve the desired goal of improving our government.

One of the great concerns of the American people today is that their government is unwieldy, overlapping, ineffective, and inefficient. We can respond to this concern and make a major contribution to the effectiveness of American Government by studying, improving and acting on these bills in a strong, bipartisan effort.

SENATOR RANDOLPH JOINS IN DISCUSSION OF "NATIONAL WEEK OF CONCERN FOR PRISONERS OF WAR/MISSING IN ACTION"

Mr. RANDOLPH. Mr. President, there few parents or wives who would not, this very day, eagerly trade places with their son or husband held prisoner by the North Vietnamese and Vietcong. So any expressions of concern for these 1,600 brave men I make seems pallid compared with the anguish and anxiety felt by their loved ones at home.

I am privileged to join with Senators who spoke yesterday, in marking this "National Week of Concern for Prisoners of War/Missing in Action." It is a posture of unanimity which I hope will not be lost on those who hold the fate of these American servicemen in their hands. The Nation has been divided over the conduct of the war itself, but Americans are against these imprisoned countrymen being pawns in the game of war.

There are few fears more terrifying than fear of the unknown. For almost 7 years, some Americans have existed with the brutal doubt that loved ones may yet live, but convinced over a long period of numbness and sorrow that a just God would erase such doubt.

Our appeals in the name of humanity to other countries and organizations have not worked; the direct approach of a Sontay sortie has failed. There is left only the cessation of hostilities in Indochina and the full moral weigh of civilized nations brought to bear on this problem to effect the release of this special class of war victims. In the interim, there is the intangible force of a concerned citizenry and the power of collective prayer to sustain those who weep.

I commend my fellow Senators for their action in promulgating the resolution and the President for proclaiming this week of national concern. It is one in which all of us join. Meanwhile, let us not relent in our efforts to overcome the barriers of secrecy that prevail, and in our attempts to assure that until these imprisoned Americans are freed they will receive the humane treatment civilized nations demand.

TRANS-ALASKA PIPELINE

Mr. STEVENS. Mr. President, today I shall place in the RECORD an excellent article written by former Secretary of the Interior Walter J. Hickel on the proposed Trans-Alaska pipeline.

In this article, Governor Hickel describes his love of the primitive wilderness beauty of Northern Alaska. He goes on to point out that the protection of this scenic area is compatible with the building of the pipeline, which will be the largest private construction project in the history of man. Mr. Hickel points out that—

As long as the federal government stands behind the strict environmental stipulations which we established for this project . . . we can enjoy both the resources treasure and the wild grandeur of Alaska.

This observation is made with the knowledge that America's energy needs are increasing at a tremendous rate and that we now have the technology to construct the pipeline in accordance with sound conservation principles. I strongly support this position and recommend Mr. Hickel's article for the consideration of the Members of this body.

I ask unanimous consent that the article appear at this point in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

THE ALASKAN PIPELINE IS ESSENTIAL

(By Walter J. Hickel)

ANCHORAGE.—I cherish Alaska's beauty. I call it Alaska's "resource of the heart and soul." I would not give the pipeline project my support if I were not convinced—by facts rather than emotion—that it can be built without harming this beauty. The key lies with the Government, and its determination to meet its responsibilities to John Q. Citizen.

Most Americans, whether "developers," "preservationists," or "conservationists"—where I place myself—agree that the United States needs more petroleum if we are to continue to feed, fuel, move and light our nation.

The statistics tell the story: Present-known, domestic reserves of oil and gas are 40 billion barrels. Daily consumption of these products amounts to some 14 millions barrels a day, of which roughly four million barrels come from nondomestic sources, primarily the Middle East.

As individuals we are free, within some practical limits, to curtail our consumption of these resources. But we cannot turn off the ignition of America without plunging ourselves into economic, political and industrial darkness.

We need Alaska's Slope oil. But we also need, perhaps now more than at any previous point in our history, to respect the environment, and to realize that environmental considerations are needed. Rape of our resources is generally an irreversible process.

If nature had to put that oil somewhere, I'm glad it was on the North Slope of Alaska and not in the Tetons, or the Sierras, or Cape Cod. America enjoys a cherished and immeasurable wealth of frontier grandeur and environmental bounty in its 49th State. And within Alaska's vast reaches, I believe we have room to set aside just 15 square miles, out of Alaska's 586,000 square miles, to be taken up by the entire right-of-way for an 800-mile pipeline from Prudhoe Bay to a deep-water port on the Gulf of Alaska.

The insistence of Americans that the pipeline's integrity be guaranteed in advance is just and proper, and gratifying to those who demand wise use of our resources—without abuse.

Soon after I became Secretary of the Interior, the question of moving oil from Prudhoe Bay to an ice-free port came before me. There were pressures: pressure from those who said nothing should happen, and from those who demanded that it happen immediately. But pressure comes with responsibility, and responsible action could come only after all interests were considered for the benefit of 200 million Americans.

God gave to America an abundance of resources—not to destroy, but to use and enjoy, and then to pass on to following generations. We are rapidly approaching a civil war of priorities—neighbor against neighbor, man against need—over the preservation or use of our resources. Bitter voices are raised, on the one side pleading, "Give us work, give us energy for our homes"; on the other side shouting, "Stop the destruction of our environment, protect our wildlife and our wilderness."

Somewhere in between there's a small voice that insists that if we do it right we can work together and respond to both needs. We cannot undo all of the wrongs of yesterday, but we can guide responsibly the needs of tomorrow. We cannot condone exploitation of one resource at the expense of another, but neither can we preserve untouched all of those resources that man needs.

All human needs must be taken into consideration, those of everyday necessity such as energy, as well as those of less tangible but equal importance such as scenic beauty.

In evaluating the entire situation regarding the trans-Alaska pipeline, I am convinced that we must make "use" and "conservation" compatible. As long as the Federal Government stands behind the strict environmental stipulations which we established for this project—to be the largest private engineering enterprise in the history of man—we can enjoy both the resources treasure and the wild grandeur of Alaska.

I have dreamed of the day when man would change his attitude toward the Arctic. There is vastness, untouched and primitive. There is beauty, peace, wealth and opportunity. A treasure chest of oil and other resources lie under the barren North Slope. At the same time, other vast areas of Alaska are of tremendous beauty, and promise to be an even more important resource for refreshing the spirit of man for as long as the human species inhabits earth.

WILLIAM PROXMIRE—GIANT KILLER

Mr. NELSON. Mr. President, the loneliness of the long-distance runner is a movie theme that is quite familiar to my Wisconsin colleague, BILL PROXMIRE. For years he has been making a daily 5-mile run to the Senate Office Building. And for years he has been setting the pace against the SST. Both actions have been relatively singular positions with only a few companions to join in the competition to halt Federal funding of the SST.

Today the SST race is over, and again the man that led the entire way is BILL PROXMIRE. This year, however, a majority of the Senate joined in the competition on our team, and it was not quite so lonely an exercise.

Mr. President, I congratulate BILL for his perseverance and efforts and call the attention of the Senate to the article entitled "William Proxmire, the Giant Killer," published in this week's issue of Time magazine. I ask unanimous consent that the article be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

WILLIAM PROXMIRE, THE GIANT KILLER

Proposals for Government funding of an American supersonic transport date back ten years—the same amount of time Senator William Proxmire has spent opposing it. From 1961 to 1969, Proxmire engaged in five losing campaigns against SST appropriations. He has filibustered and conducted hearings, hammering away in a personal crusade against the "perfectly trivial purpose of developing an SST, seeing how rapidly we can already fly people overseas." It was the kind of tenacity that has made Proxmire the bane of defense contractors, pork-barreling colleagues and consumer frauds.

He is a loner and a maverick who disdains the Senate "club" way of conducting business, and as a result, his effectiveness as a legislator has been uneven. Proxmire came to the Senate in 1957 after winning a spe-

cial election to fill the seat vacated by Joseph McCarthy's death. His committee assignments included Banking and Currency, Post Office and Civil Service, which he used to help shape his reputation as one of the chief watchdogs of Government waste.

An early run-in with Senate tradition came in 1959 when he attacked Majority Leader Lyndon Johnson for his autocratic rule of the Senate. Proxmire's popularity with insiders was further eroded by his penchant for paring fat Government work projects dear to the Senate's patronage heart.

Until the late '60s he was considered a scattershot Senator, but during the past several years, he has homed in on some major issues. In 1967 he pushed a truth-in-lending bill through the Senate that had languished for four terms. He uncovered the $2 billion cost overrun on the C–5A and defense contractors' hiring of former high-ranking military officers. Finally, he is close to success in his fight against the SST.

His staff was treated to clear evidence of his delight with the House defeat of funds for the big plane; from inside his suite in the New Senate Office Building could be heard the voice of the usually taciturn Proxmire singing *Bill* from the old musical *Show Boat*. His office reflects his personal style—sparsely furnished, its green walls completely devoid of pictures or decorations. The only homey touch is the hot plate used to make his breakfast at the office after his 4.8-mile run—not a jog—to the office and 200 push-ups. At 55, Proxmire is nearly as fit as he was as an undergraduate boxer and football player at Yale.

As the SST fight goes down to its final stage, Proxmire's groundwork, is largely done. Testimony of economists and environmentalists is already in, and the body of information he has developed against the plane over the years is well known to his colleagues. He does not wring votes from fellow Senators with deals and high-pressure promises, as members of the club would do, but he relishes the upcoming battle for the final handful of votes: "It's going to be a ——— interesting week."

MEDICAL AND HEALTH-CARE FACILITIES

Mr. BAYH. Mr. President, for many years the Nation has faced a major crisis in attempting to provide adequate medical and health-care facilities for its people, regardless of income, age, or race. Everyday reports are rampant about the rising costs of hospitalization, lack of medical manpower, and overtaxed conditions existing in medical institutions. Criticisms are made about the misdirection of Federal and State funds, the lack of adequate planning for future expansion of medical facilities, and the insufficient efforts Congress and State legislatures have made to improve the quality of these services.

Nevertheless, occasionally a community comes to attention which, by its energies, has accomplished in the health field that which most deem impossible. Mr. President, Rossville, Ind., is one such community. Essential health services have been provided for its elderly through a most commendable spirit of cooperation and unusual generosity displayed by its residents. Over $300,000 in cash and property were contributed toward the cost of erecting a 96-bed convalescent center for the aged and infirm of that area.

In a recent letter to me, Mr. Joseph Bonner, trust officer of the Lafayette Bank & Trust Co., Lafayette, Ind., described in graphic terms the remarkable accomplishments of this small community in providing a fine new health-care facility. In particular he singled out for special praise the work of Mr. Ralph Rodkey who spearheaded these efforts. Because this is an outstanding example of what local cooperation and team effort when properly directed can achieve, and as a tribute to the people of Rossville and especially Mr. Rodkey, I ask unanimous consent that certain excerpts from Mr. Bonner's letter be printed in the RECORD.

There being no objection, the excerpts were ordered to be printed in the RECORD, as follows:

LAFAYETTE BANK & TRUST CO.,
Lafayette, Ind., February 22, 1971.

Senator BIRCH E. BAYH, JR.,
Old Senate Office Building,
Washington, D.C.

DEAR SENATOR BAYH: This is neither a letter complaining about something nor a letter requesting Federal Funds for some worthy cause. This is a letter to report to you that the Hoosier spirit of initiative, community-mindedness and hard work is still very much alive in the countryside in and around Rossville, Indiana.

Almost three years ago the people of the Rossville area decided that they needed a convalescent home for their aged and infirm. And they set about to get the job done and did it.

On the 1st of February, 1971, the doors of the 96-bed Milner Community Health Care Center opened and the first patients were admitted. This event, however, was only the necessary result of a tremendous effort.

Donated land and money accounted for approximately $320,000.00 of the approximately $750,000.00 cost, of which sum over $100,000.00 was given by "little people". No tax money, no grants from any government or agency brought this remarkable feat about. And, the facility will operate as a not-for-profit corporation.

It was my privilege to be the Lafayette representative on the Board of Directors of the Corporation and as such, I witnessed these Rossville-area people in action. They impressed me with their zeal. I only attended meetings—did no real work.

Which brings me to the point of my letter. Is there some kind of award or some kind of recognition that can be given the Rossville community for this spirit? Would it be possible to recognize in some manner the individual efforts of Mr. Ralph Rodkey, a Rossville implement dealer, who took hours of his time (away from his business) to supervise the construction, to arrange for the mortgage loan, to purchase the equipment and to see to it that the building and its equipment and furnishings passed all inspections?

The construction of a nursing home by a farm implement dealer must be one of the wonders of the world.

In my opinion, he should at least be made a Sagamore of the Wabash. Mr. Rodkey would probably be angry if he knew I was writing this letter, but I believe such efforts need to be publicized.

Very truly yours,

JOSEPH A. BONNER,
Trust Officer.

BUD HORN MEMORIAL SCHOLARSHIP

Mr. HATFIELD. Mr. President, the hundreds of friends of the late Harold G. Horn, affectionately known as "Bud" to a host of people, are forming the "Bud Horn Memorial Scholarship" in the memory of this outstanding citizen, who was a native of Oregon for many of his 58 years. Bud Horn was a cherished friend of mine.

I ask unanimous consent that the eulogy delivered by Don Robinson, the letter written by Emory E. Moore in connection with this scholarship, and the letter of Barbara Horn, Mr. Horn's daughter, be printed in the RECORD.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

EULOGY TO BUD HORN

(At the funeral services held "for Bud Horn on November 4, 1970, the following eulogy was delivered by Don Robinson, long-time associate of Bud Horn as a member of BMA's Portland Branch Office.)

It is not the length of life that matters but *how it is lived*. That is the thing that counts—

It is not *how long* but *how well*.

Bud had the admirable quality of overlooking people's weaknesses and faults and commending them for their good points. He never said a critical or harsh word against anyone. He believed in people and hoped for the best in their lives.

He was a splendid organizer and didn't believe in "divide and conquer," but always instigated a spirit of togetherness and unity to see that the job was well done.

He loved his work and his enthusiasm was infectious. He had patience with his salesmen that was extraordinary.

Mr. Horn liked people and enjoyed making people happy. The tickets for ball games, the Christmas gifts, and numerous other things—displayed his "big heart" and generosity.

He was a "boss" that was approachable . . . sensitive to the problems of his salesmen and others—far outside the line of duty. He had a "listening ear" and was warm and friendly to people in all walks of life.

Bud respected his family and was concerned about them. This concern extended to all his friends and their families as well.

Three months ago, Bud and I had a close talk about what life is really about. He said a person couldn't just become a Christian and then not do any good works.

For the most part, people only know us on the surface—but often, in a man-to-man conversation, a person will reveal how deep the water really runs. He will reveal matters we had no concept about—such as the necessity to be prepared for death by inviting Christ to come into your life.

Bud believed in prayer. When you believe in organizations—you get only what organizations can do. When you believe in education—you get only what education can do. When you believe in man—you get only what man can do.

But—when you believe in prayer—you get what God can do.

It is impossible for me to adequately express the gratitude and feelings of Bud's many friends and acquaintances over the past years. But I personally believe that I have become a better person just to have known a man of Bud's calibre.

John 11: 25–26 paraphrased says, Anyone who believes in Me, even though he dies like anyone else, shall live again.

He is given eternal life for believing in Me and shall never perish.

"For true friendship, it is not enough to have emptied a brotherly glass to each other, to have sat in the same form at school, to have met frequently at the same cafe, to have conversed courteously in the street, to have sung the same songs at the same club, to have worn the same colors as politicians, to have extolled one another in the press . . . Friendship, indeed, is one of the greatest

boons God can bestow on man . . . It is a union of our finest feelings; a disinterested binding of hearts, and a sympathy between two souls. It is an undefinable trust we repose in one another, a constant communication between two minds, and an unremitting anxiety for each other's souls . . ."

—J. Hill

ALBANY, OREG., *March 1971.*

DEAR FRIEND: As one of Bud Horn's personal friends, I am sure you will agree that we need to insure that his memory continues on. Bud did so much for us and meant so much to so many that it is important—in fact, essential—that his friends perpetuate his good name and the joy which it constantly represented.

A memorial scholarship fund is being established for this purpose, to honor Bud Horn. This fund—its minimum objective is $150,000—will endow a program that will forever associate Bud's name with excellence in education. The program, patterned after that of the Rhodes Scholarship, will encourage and assist outstanding students enrolling at Oregon State University, University of Oregon, and Lewis and Clark College—the institutions that were closest to Bud's heart.

Following Bud's own ideals, the Bud Horn Scholar will not be a one-sided man, or a selfish man. He will have intellectual ability founded upon sound character. Leadership and successfu participation will be present in abundance. We intend to make the Bud Horn Memorial Scholarship as prestigious at the high school level as the Rhodes Scholarship is at the college level.

Thanks for your help.

Sincerely,

EMORY E. MOORE,
Chairman,
Bud Horn Memorial Committee.

(What Bud Horn meant to his family is beautifully expressed in this letter from his oldest daughter, Barbara, to BMA's Chairman and President, W. D. Grant.)

DEAR MR. GRANT: Thank you for your lovely letter.

They say that few men love their work and I think this is necessary for a man to be whole. Daddy loved the Business Men's Assurance Company with every fiber in him. From the time I learned to talk and understand, I grew up with this love pounded into my brain. Although he never had a son to carry out his business image, I can tell you that my sisters and I knew what integrity and discipline were from following his devotion to your company. We have had a beautiful upbringing thanks to his success and the inner qualities only Bud Horn could convey to us.

I know you are as sad as we are at his death. But Daddy packed 100 years into 58 and still came out on top. He always told me, "Attitude is everything in life, Barbara." What more can I say.

BARBARA HORN.

HOSPITAL COMMUNICATIONS SAVES LIVES

Mr. BAYH. Mr. President, last year it was my privilege to preside over a series of hearings held by a special Subcommittee of the Committee on Public Works in studying the need for legislation to provide a permanent, comprehensive program of Federal disaster assistance.

In the course of those hearings which examined the experiences of communities devastated by Hurricane Camille, the subcommittee considered practically every facet of emergency relief during disasters.

Among other matters our attention centered on such problems as predisaster relief, debris removal, fire suppression grants, temporary housing assistance, emergency transportation, community tax relief, unemployment, food stamps, and emergency communications.

One of the interesting developments which came to the attention of the subcommittee was a special, regional hospital two-way radio communications network called the HEAR system—hospital emergency administrative radio—which enables participating hospitals in a disaster area to have immediate and continuous communications with each other, as well as with hospitals outside the disaster area, and which enables detailed information regarding the distribution of casualties and the need for medical supplies to be made available immediately.

Last month, according to an article in the Los Angeles Times this new type system demonstrated how helpful it can be in dealing with major emergencies. The HEAR communications system set up in the Los Angeles area about a year ago by the Hospital Council of Southern California proved to be instrumental in coordinating the resources of the 110 hospitals tied into the system during the recent, tragic earthquake.

According to the article in the Times, because telephone communications had been disrupted in so many places in the San Fernando Valley, the HEAR system was the only reliable means of communications. It was through the HEAR system that available medical personnel were dispatched to the areas where they were most needed and that medical facilities were located and prepared for the arrival of disaster victims. Similarly, I have learned that in the Mississippi tornado a similar statewide radio medical network proved to be extremely valuable in coordinating medical relief efforts following the devastation wrought there on February 21.

Mr. President, I ask unanimous consent that the Los Angeles Times article referred to earlier; an editorial from the same newspaper; and a short article and editorial from the American Medical News of March 8 describing the Mississippi network be printed in the RECORD.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

[From the Los Angeles Times, Feb. 10, 1971]

RADIO NETWORK: DISASTER PLANNING BRINGS QUICK AID

(By William Drummond)

Los Angeles County's medical disaster planning paid off Tuesday in fast, smooth assistance given to hundreds of persons injured or evacuated from their beds in damaged hospitals as a result of the earthquake.

A short-wave radio network—set up only about a year ago at a cost of $250,000—was used to coordinate the resources of the 110 hospitals in the county included in the system.

The network (called HEAR, short for Hospital Emergency Administration Radio) was headquartered at Valley Presbyterian Hospital. In addition, the Hospital Council of Southern California, 4777 Sunset Blvd., served as the countywide clearinghouse for requests for medical personnel and facilities.

However, Frank St. Denis, assistant executive director of the hospital council, told The Times there is one serious flaw in the radio network: The U.S. government's Veterans Administration hospitals are not tied into it.

The San Fernando Veterans Hospital was one of the hardest hit. About 200 to 300 patients had to be evacuated. Most of them went to the veterans hospital in Sepulveda.

The first warning that the Sepulveda staff could expect a large number of evacuees from San Fernando Veterans came from a Los Angeles city fireman, who came in at 8:30 a.m. and asked for all the beds they could prepare. This was 2½ hours after the quake struck.

SYSTEM HIGHLY PRAISED

But for hospitals participating in HEAR the radio network had functioned "beautifully," said St. Denis. "I don't know what we would have done without it."

It was via HEAR that available doctors and nurses were dispatched to the right places. And it was via HEAR that available hospital beds were found for the hundreds evacuated from damaged hospitals.

Evacuations took place at Olive View Hospital (400 patients) and Holy Cross Hospital in Mission Hills (150 patients). Both hospitals were destroyed.

In addition to placing evacuated patients, the radio network was instrumental in other work, said St. Denis.

With Gerald Allenbaugh manning the radio at Valley Presbyterian, operating rooms were readied with doctors standing by for the arrival of patients. Special respiration equipment was located and made available. Units of blood, special sutures and other vital items were tracked down.

Many of these supplies, as well as medical personnel, were flown to the scene via helicopters or transported on the streets with police escort.

With forewarning, County-USC Medical Center was braced for an influx of quake patients from other areas about 7:30 a.m. Its night staff of doctors, nurses, orderlies and custodial help was held over. The halls were filled with waiting wheeled stretchers.

The medical staff then cleared out all persons with no acute problems or routine illnesses. They were asked to come back another day.

All elective surgery was postponed. Patients who could be discharged were sent home.

As the quake patients arrived, they were sorted quickly by medical personnel. A minor trauma area was set up for victims of cuts and bruises; the auditorium for the chronically ill, and the main emergency room for the acutely ill.

HELD THEIR HANDS

Nurse Nancy M. Blee, coordinating the County-USC nursing services, said that after the patients came to the auditorium they were examined by a doctor, given some rest and then assigned either elsewhere at County-USC or to another hospital.

"We are assigning a nurse just to hold their hands," said Nancy Blee. "What is needed more than anything now is for someone just to hold their hands."

One of the immediate problems facing the staff at Sepulveda Veterans Hospital was the loss of all medical records on tubercular patients from San Frenando Veterans. The staff had no immediate way of knowing what stage of treatment the patients were in.

Although it has an official capacity of 815 beds, Sepulveda Veterans was expanded by 200 beds to meet the emergency, said Dr. Charles Modica, the hospital's director. In addition, there already were 62 actual empty beds.

MINOR GAS LEAKS

The major damage at Sepulveda Veterans was broken glass in the laboratories and pharmacy, although minor leaks occurred in gas and water lines.

However, at San Fernando Veterans about six miles from Sepulveda, the damage was far more extensive. Dr. David Salkin, medical chief of staff at both San Fernando and

Sepulveda, went to the former facility Tuesday morning to set up medical operations.

He wound up pulling eight to 10 persons from the wreckage.

He then tried to return to Sepulveda, but was caught in a traffic jam and ambulances carrying patients from San Fernando Veterans arrived before him.

Emergency surgical cases had to be taken to the Veterans Administration facility in West Los Angeles, because the operating room at Sepulveda Veterans was knocked out in the quake.

Preparations for handling the medical needs of a major disaster have been in the works for some time, said Dr. Arnold Niemeyer, chairman of the Los Angeles County Medical Assn.'s disaster medical-care committee.

ONLY RELIABLE METHOD

The short-wave radio was the only reliable method of electrical communication in the San Fernando Valley, where telephone service was disrupted in many places.

The logistics of the hospital evacuation were formidable.

First, room had to be found for patients elsewhere. For example, there were 50 mental patients at Olive View. Room for them was found at Camarillo Hospital. Other hospitals checked in with their available bed space: Rancho Los Amigos 275; Long Beach General 50; El Cerrito Hospital 50; County-USC Medical Center 400.

Once the space problem was solved, the patients had to be provided transportation. "We have beds available," St. Denis reported early Tuesday, "but we can't get people to them."

However, this problem was solved after buses were dispatched from the Los Angeles County Sheriff's Department, County-USC Medical Center and the Rapid Transit District.

Teams of physicians were sent to the site at San Fernando Veterans Hospital from as far away as Harbor General Hospital after the call went out for help on the HEAR network. Harbor General also sent its paramedic mobile intensive care unit.

[From the Los Angeles Times, Feb. 10, 1971]

THE GREAT EARTHQUAKE OF 1971

In 1769, when Capt. Gaspar de Portola was leading his men north to Monterey in their colonizing expedition, they felt a sharp earthquake as they crossed the Santa Ana River.

It lasted, wrote Fr. Juan Crespi, "about half as long as an Ave Maria, and about 10 minutes later it was repeated, though not violently." The men named the Santa Ana the Rio de los Temblores, the river of quakes. Shocks continued until the party reached the Los Angeles River.

Thus those early explorers learned what all Southern Californians know, that beneath the mild and even climate there lurks nature's capacity for sudden, unpredictable and sometimes overwhelming violence.

We suppose everyone is both thankful the earthquake of Tuesday morning was not worse than it was, and sobered by the heavy loss of life, and the injuries, which it occasioned. Those several millions of us who escaped with nothing more serious than damage to property or a shaking up are a little more aware this morning than we were before 6 a.m. yesterday of the actions of chance in our lives.

Beyond that, we, like everyone else, have only to offer an almost random collection of thoughts, or observations, some serious, some gratifying, about the worst earthquake in Los Angeles in many years.

It is especially appalling and poignant that destruction and loss of life were so severe in two hospitals, the Veterans Administration Hospital and the county's Olive View Hospital, both in Sylmar near the epicenter of the quake.

Perhaps, as one man said, "it was like a bombshell scoring a direct hit," and the strength of the building would not have made any difference.

But you naturally ask whether all reasonable precautions were taken in the planning and building of those hospitals, part of which now lie toppled like playthings.

The same question arises about the freeway overpasses which fell, and the Van Norman Dam. If the hospitals and the overpasses and the dams met all appropriate codes, are the codes stringent enough? The inevitable investigations will tell.

There is scarcely such a thing as an earthquake-proof structure, if the earthquake is severe enough. We all take certain risks by living here. But there are reasonable precautions to be taken, and standards to be set.

One precaution taken with foresight was Los Angeles County's medical disaster planning. With its new short-wave radio network, the Hospital Council of Southern California was able to rush ambulances and supplies to the San Fernando Valley.

Indeed, policemen, firemen and rescue workers of all sorts rose to the occasion. And so, in a common cause, did the citizens. Whether they just had stories to tell, or grave problems to cope with, they showed more courtesy, generosity and good will than we have seen around this town for quite a while.

[From the American Medical News, Mar. 8, 1971]

MISSISSIPPI M.D.'S MOBILIZE TORNADO ASSISTANCE

Victims of Mississippi's worst tornadoes in more than 30 years received immediate aid through an elaborate statewide radio medical network and the helping hand of physicians and the state medical association. Portions of Louisiana and Tennessee also were hit by storms Feb. 21.

The federally-funded communications network was set up approximately 14 months ago by the Mississippi Hospital Assn. in conjunction with a helicopter ambulance project. Eighty-two of the state's 114 hospitals are linked to the network, 20 as regional communication centers and the remainder on an area-wide basis. Those on regional frequencies are licensed by the hospital association. Hospitals on area frequencies secure their own licenses.

The network was activated almost immediately after tornadoes struck the Mississippi Delta area. King's Daughters Hospital in Yazoo City, 30 miles south of the hardesthit area, was established as the communications center.

From Yazoo City, constant communications were maintained with the hospital association in Jackson and with hospital officials in Rolling Fork, the center of the disaster area.

Through the radio network, ambulances were routed to and from disaster scenes. Information was furnished to state civil defense and Red Cross workers.

Shortly after tornadoes hit, the Mississippi State Medical Assn. notified the hospital association of its willingness to furnish teams of physicians where needed. The radio network helped direct the flow of doctors and nurses from Vicksburg and Jackson to disaster sites.

Three helicopters were used in rescue operations. The majority of injured were transported to hospitals in Jackson and other sites by school buses and private transportation.

Although the supply of physicians were adequate, the Coast Counties Medical Society, formed by physicians on the Gulf Coast, offered to send teams of physicians, supplies, and drugs to areas needing aid.

One hundred one people were reported dead in Mississippi and 650 injured. Heavy damage resulted in the primary tornado belt, located in the Mississippi Delta area east of the Mississippi River from Natchez to Clarksdale.

Inverness and Cary were virtually destroyed by the storms. Death tolls were also high in Rolling Fork and Delta City.

An official of the National Medical Assn. meanwhile charged the American Red Cross with discriminatory practices in handling disaster aid. Andrew Thomas, MD, Chicago, said the Red Cross and Civil Defense provided services to a white section of Inverness, but little or no help in nearby black rural communities. The Red Cross denied the charge, saying that lack of communications and facilities prevented them from learning of some locations hit by tornadoes.

[From the American Medical News, Mar. 8, 1971]

DISASTER PLANNING

Tornadoes in Mississippi (story, page 3) and the earthquake in Los Angeles (AMN, Feb. 22, 1971) illustrate again the awesome power of nature. The two disasters also demonstrate the important role played by the medical community at such times.

Man is powerless to prevent natural disasters, but he can be prepared to deal with the aftermath. In both the earthquakes and the tornadoes, the responses of physicians, allied health personnel, and hospitals was in the finest tradition of medicine.

Their response was facilitated by radio communication networks which made it possible to assess the damage and swiftly arrange for the needed personnel and supplies to be sent where they were most needed. Almost all areas now have such medical plans for coping with disasters—under the aegis of the medical society, hospital groups, and civil defense units. Many hold realistic drills; in fact, the Los Angeles hospital radio network had conducted a mass 300-casualty mockup drill less than a year ago. The "disaster" at that time, ironically, was an "earthquake" centered on a local junior high school.

In communities all over the country, similar drills have been held. Physicians and others have spent countless hours making detailed plans for coping with disaster. Fortunately, few of these plans ever are needed to cope with actual emergencies. However, when the need arises, their value is incalculable, as the Mississippi and Los Angeles tragedies have shown. These events are a dramatic illustration of the value of all those involved in disaster preparedness activities that their time and effort is not being spent in vain.

OUR DEBT TO GREECE

Mr. McINTYRE. Mr. President, March 25 marks the 150th anniversary of Greek independence from four centuries of oppressive rule under the Ottoman Turks.

This is the anniversary of the day when a small band of patriots, led by Upsilanti, struck the first blow for Greek liberty and launched a struggle, on land and on sea, that persisted for the next 7 years.

The vigor and determination of that struggle for independence was founded on that great love of freedom and liberty and democracy which Greece bequeathed to our own young Nation.

The ties between our countries date back many generations, Mr. President.

James Monroe recognized those ties when he spelled out the famous Monroe Doctrine in 1823, for in that historic message to the Congress he paid tribute to the Greek heritage that was the foundation stone of our young democracy.

President Monroe expressed his belief that the Greek nation deserved its independence from the Ottoman Empire and

was supported, a few days later, by a famous figure from my own State of New Hampshire.

It was Daniel Webster who rose on the floor of the House of Representatives and in his customary eloquence acknowledged America's ideological debt to Greece and asked that a minister be sent to that struggling nation.

But Greek contributions to our own Nation include more than the ideological, Mr. President.

From the first recorded Greek immigrant to our shores, in 1848, the people of that nation have become an integral, contributing, part of this Nation.

Those contributions span a spectrum that reaches all the way from the Greek architecture of the Lincoln Memorial, to the music of Mitropoulous, to the medical contributions of Papanicolau, to the literature of Zachos, to that delightful concoction of Greek descent, the ice cream cone.

Mr. President, it is, indeed, true that there is no domain of American life where the Greeks have not been active and to which they have not brought some contribution.

Our Nation owes so much to all Greeks that on this memorable occasion it behooves all of us to offer our thanks and our good wishes.

COMPARATIVE INFORMATION ON THE FREE WORLD AIR TRANSPORTATION SYSTEM

Mr. GOLDWATER. Mr. President, I ask unanimous consent to have printed in the RECORD a statement containing comparative information on the free world air transportation system.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

COMPARATIVE INFORMATION ON THE FREE WORLD AIR TRANSPORTATION SYSTEM

TOTAL FREE WORLD AIRCRAFT FLEET[1]

Approximately 80 percent of the aircraft in the free world air transportation system operated by airlines using turbojet aircraft were manufactured in the United States.

FOREIGN COMMERCIAL AIRCRAFT FLEET[1]

The foreign commercial aircraft fleet utilizes approximately 2100 United States manufactured aircraft. This is about 68 percent of the foreign commercial aircraft fleet. Twenty-four percent of the 2100 U. S. manufactured aircraft are 4-engine turbojets.

EXPOSURE[2]

During the past five years the foreign air carrier fleet has flown an average of 5,220,000 hours annually, carried 103,400,000 passengers annually, and flown 66,779,609,400 passenger-miles annually. The significance of this is highlighted by the following comparison based on the above figures.

Of the free world air carrier fleet, foreign air carrier operators account for: 51.6 percent of the hours flown; 44.5 percent of the passengers carried; and 39.6 percent of the passenger-miles flown.

Foreign Commercial Aircraft Fleet,[1] U.S. and foreign manufactured aircraft in use, on order and on option

Aircraft in use:	
United States manufactured aircraft	2,901
Foreign manufactured aircraft	987
Total aircraft in use	3,078
Aircraft on order:	
United States manufactured aircraft	268
Foreign manufactured aircraft	100
Total aircraft on order	368
Aircraft on option:	
United States manufactured aircraft	98
Foreign manufactured aircraft	82
Total aircraft on option	180
Aircraft in use, on order, on option:	
United States manufactured aircraft	2,457
Foreign manufactured aircraft	1,169
Total aircraft in use, on order, on option	3,626

[1] Source—Commercial Aircraft Fleets, Jet Equipped Airlines of the Free World, Lockheed/Georgia Company (June, 1970). A carrier must have a turbojet powered airplane in service or on order to be included in this report.

A carrier must have a turbojet powered airplane in service or on order to be included in this report.

[2] Source: ICAO Reports. Prepared By Bureau of Aviation Safety, February 19, 1971.

UNITED STATES AND FOREIGN COMMERCIAL AIRCRAFT FLEETS[1]—AIRCRAFT IN SERVICE, BY MANUFACTURER

Manufacturer	Aircraft in service by commercial aircraft fleets		
	United States	Foreign	Grand total
United States:			
Boeing	1,319	491	1,810
Douglas	709	1,075	1,784
Convair	358	131	489
Lockheed	105	40	145
All other	171	354	525
Subtotal	2,662	2,091	4,753
Foreign	159	987	1,146
Grand total	2,821	3,078	5,899

[1] Source: Commercial Aircraft Fleets, Jet Equipped Airlines of the Free World, Lockheed/Georgia Company, (June, 1970) A carrier must have a turbojet powered airplane in service or on order to be included in this report.

Explanatory notes relating to fatal accidents, fatalities, rates the U.S. and foreign scheduled airlines

This table shows the number of fatal accidents occurring in United States scheduled passenger service compared with those occurring in foreign scheduled passenger service. A similar comparison is also shown for passenger fatalities, passenger-miles flown, and the passenger fatality rate per 100 million passenger miles flown.

In 1969, U.S. scheduled passenger operations recorded 61 percent of the passenger-miles flown, yet accounted for only 22 percent of the fatal accidents and only 12 percent of the passenger fatalities. The passenger fatality rate for these U.S. Carriers is about one-twelfth that of the foreign carriers.

During the ten year period 1960–1969 the United States fatal accidents totaled 75, while the foreign fatal accidents totaled 223. These 75 United States fatal accidents accounted for 25 percent of the fatal accidents in the free world air carrier fleet.

These comparisons of fatal accidents do not reflect a relationship between United States and foreign manufactured aircraft, however, they do provide comparative information on the air carrier fleets when viewed in conjunction with the other data provided.

FATAL ACCIDENTS, FATALITIES, RATES: THE UNITED STATES AND FOREIGN SCHEDULED AIRLINES[1] SCHEDULED PASSENGER SERVICE, 1960–69

	Fatal accidents		Passenger fatalities		Passenger miles flown		Passenger fatality rate per 100,000,000 passenger miles	
	United States	Foreign	United States	Foreign	United States	Foreign	United States	Foreign
Year:								
1960	12	21	336	537	40,484,908,000	27,015,092,000	0.76	1.99
1961	5	20	124	681	41,701,560,000	30,798,440,000	.30	2.21
1962	5	23	158	607	45,853,343,000	34,646,657,000	.26	1.75
1963	5	26	121	594	52,703,333,000	38,796,667,000	.23	1.53
1964	9	16	200	461	61,022,488,000	44,977,512,000	.26	1.02
1965	7	18	226	458	71,796,399,000	51,203,601,000	.32	.89
1966	4	28	59	942	83,142,197,000	58,857,803,000	.07	1.60
1967	8	22	226	452	103,381,996,000	66,118,004,000	.22	.68
1968	13	24	305	694	119,612,578,000	72,887,422,000	.26	.95
1969[2]	7	25	132	991	132,168,783,000	84,831,217,000	.10	1.17

[1] United States—Certificated Route Air Carriers. Foreign—Schedules Airlines of ICAO Contracting States Major Exclusions—U.S.S.R., Peoples Republic of China.
[2] Foreign data preliminary.

Source: United States—National Transportation Safety Board World Scheduled Airlines—ICAO.

AIRCRAFT HOURS FLOWN, PASSENGERS CARRIED—THE UNITED STATES AND FOREIGN SCHEDULED AIRLINES, 1960-69

Year	Aircraft hours flown		Passengers carried	
	United States [1]	Foreign [2]	United States	Foreign [2]
1960	4,100,000	4,500,000	58,000,000	48,000,000
1961	3,700,000	4,300,000	58,000,000	53,000,000
1962	3,500,000	4,200,000	63,000,000	58,000,000
1963	3,600,000	4,300,000	71,000,000	64,000,000
1964	3,800,000	4,400,000	82,000,000	73,000,000
1965	4,100,000	4,300,000	95,000,000	82,000,000
1966	4,200,000	5,100,000	109,000,000	91,000,000
1967	4,900,000	5,100,000	132,000,000	102,000,000
1968	5,500,000	5,600,000	150,000,000	112,000,000
1969 [3]	5,800,000	6,000,000	159,000,000	130,000,000

[1] Aircraft hours flown by certified route air carriers in all scheduled service.
[2] Foreign: Scheduled airlines of ICAO contracting states major exclusions—U.S.S.R., Peoples Republic of China.
[3] Foreign data preliminary.

Source: United States-National Transportation Safety Board, Foreign scheduled airlines—ICAO.

STATE REGISTRATION AND ELECTION LAWS

Mr. BAYH. Mr. President, for many years civic-minded citizens have been concerned about the sometimes appalling turnout at the polls in National, State and local elections. It is a well-known fact that the voting records of many American citizens compare quite unfavorably with those demonstrated in certain other countries.

At least in some cases current election laws and practices work to discourage or inhibit well-intentioned persons who normally would be qualified to vote, but who for one reason or another find themselves legally barred from participating in an election or who believe, whether rightly or wrongly, that the system is so structured as to make their participation meaningless or ineffective. If our Government is to function in accordance with those basic principles of democracy in which we all firmly believe, it is imperative that laws, ordinances and regulations controlling elections not operate in such a way as to deter electors from exercising their right of suffrage.

An article written recently by Al Barkan entitled, "Voting Laws: A Promising Climate," points out some of the major obstacles to better voting participation and makes certain suggestions which might help to remedy these problems. In view of its timeliness and general value, I ask unanimous consent that this short article, published in the February 1971, issue of the Federationist, be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

VOTING LAWS: A PROMISING CLIMATE

(By Al Barkan)

Coping with America's current voter registration laws is a lot like treading water—you make very limited progress and if you've got a long swim ahead of you, it's no way to cover the distance.

There isn't much to recommend the present registration and voting laws, which are so vital to the electoral process in the United States. We have thousands of state and local fiefdoms, each with its different set of rules controlling access to the voting booth. There is no uniformity among them, and too few laws in any state or community actually encourage maximum registration and voter turnout.

In terms of voting performance, we are indeed treading water—and we have a long way to swim. For example, the labor movement recently came through a hard political campaign. The basis of any such campaign is registration and getting out the vote of our members. COPE's register-and-vote effort involves sizable expenditures in money as well as hundreds of thousands of man-hours.

In 26 states that reported results of a special voter identification program, 69 percent of our members were registered, a slightly higher percentage than among the public at large and a gain over previous non-presidential election years. Many were registered by COPE's efforts. Many already had registered. Many were repeaters, members who had moved and had to be registered at their new address or who for other reasons had been dropped from registration rolls.

So even after a gruelling registration campaign, 31 percent of our members still were not eligible to vote by the time the election rolled around. And on election day, slightly less than 50 percent of all union members cast ballots, while only 46.4 percent of all eligible voters turned out. (We believe that since a higher percentage of union members register, then a slightly higher percentage of them vote.)

The labor movement is justly proud of its role in registration and voting. No other group, including the major parties, does as much to get citizens to participate in the democratic process, and we do manage to make some progress.

While any progress is an achievement in a field so loaded with hurdles, we know that massive breakthroughs will come only when the archaic, unfair election laws of most states and communities have been swept away.

Of course, no matter how convenient registration and voting might be made, some citizens simply won't trouble themselves to go to the polls on election day. Some will always "go fishing." However, let us also recognize that the hodge-podge of restrictive state and local election laws prevents millions of Americans from voting.

The labor movement has fought for years for modern, rational election laws. Today, there are reasons to hope this long struggle will be successful and that, as in other areas of American life, the winds of change are blowing.

Taking the long view, significant gains have been made over the past decade in expanding the electorate and equalizing voting strength, beginning with the U.S. Supreme Court's one-man, one-vote rulings of the early 1960s and carrying through to the Voting Rights Act of 1965 and its extension last year. The one-man, one-vote decisions finally give city and suburban voters parity with rural voters. The Voting Rights Act greatly increased participation of black and other minority group voters—already, it has helped bring an encouraging increase in the number of elected officials from minority groups.

And now, the Supreme Court in recent rulings has substantially broadened the potential electorate. Millions of young Americans became eligible to vote as a result of the court's 5-4 ruling in December that Congress did not transgress the Constitution when it passed a law allowing 18-year-olds to vote in elections for federal offices—the Presidency, the U.S. House of Representatives and the U.S. Senate.

With this one decision, the Supreme Court increased the number of eligible voters by more than 8 percent. More than 11 million Americans of ages 18, 19 and 20 are now potential voters in this year's special congressional elections and in all federal elections next year.

Or equal significance with the 18-year-old vote was an 8-1 Supreme Court decision upholding a section of the Voting Rights Act that prohibits a state from requiring more than 30 days residency to vote for President. The immediate effect of this is to add more than 5 million voters to the potential presidential turnout in 1972.

Because of the court decisions, the opportunities are present for adding millions of voters to the rolls in federal elections. Nearly 17 million more Americans will be potential voters in 1972, many of them members of unions. They represent a rich trove for political aspirants and a challenge to labor's political action and political education programs.

While the Supreme Court launched a process that increased the electorate, in the next breath it introduced new complications into the already complex area of election law. The 5-4 vote that decreed 18-year-olds eligible to vote in federal elections shifted to a second 5-4 decision that said Congress had gone too far when it said 18-year-olds may also vote in state and local elections.

This second Supreme Court decision could result in pandemonium at the polls. With persons under 21 eligible to vote in one election but not in another, registrars would have to keep dual sets of books and voters under 21 would have to be given a separate ballot or shuttled to a different voting machine, one with the state elections blacked out.

Hopefully, many states will act on their own to open their state and local elections to 18-year-olds, if only to avoid the chaos of dual systems. Several states already allow 18-year-olds to vote and many more already are tackling the job of revising their state laws. Action on the constitutional amendment necessary to give 18-year-olds the vote nationwide is already getting a strong push in Congress.

But if those things aren't done, if we go into 1972 with the Pandora's box of conflicting laws left open, the ingenuity of election officials will certainly be taxed. The problems are not insurmountable, but dual systems would be extremely costly—one large state estimated the cost of dual registration books and voting booths at $5 million.

The opportunity, of course, far outweighs the tribulations. The simple justice of the vote for 18-year-olds is unarguable—if we can send young Americans to college, into the work force or to war, we must also send, or at least invite them, into the voting booth. But it would be far better to do it rationally, in all elections, rather than face the chaos of a separate and unequal franchise for those under 21. At present, only eight states permit voting by persons under 21. Alaska, Georgia and Kentucky allow 18-year-olds to vote. Massachusetts and Minnesota have approved the vote for 19-year-olds and Hawaii, Maine and Nebraska for 20-year-olds. All other states have a minimum voting age of 21—or had, before the Supreme Court decision on federal elections.

The importance of the congressional actions and Supreme Court decisions goes far beyond mere numbers of new voters and the mechanics of the 1972 balloting. The recent developments suggest a new climate of opinion more hospitable not only to broadening the electorate, but also to uniform national registration and voting laws that would bring order to the jungle of present laws. A large part of this new decision is that the Supreme Court has clearly defined jurisdiction over voting laws. The court has drawn sharp lines on who has jurisdiction over which election laws—an authority which before was vaguely presumed to rest totally in the hands of the states. This should encourage Congress to act and only such action will enable the recent developments to reach their full potential.

For despite these encouraging gains, the heart of the problem of low voter turnout remains—and will remain until the process of citizen registering and voting is made easier and more manageable. Until that is done the labor movement's monumental efforts to register its members and get them to the polls will continue to represent a holding action, with every increase bearing a high cost in money and manpower.

For example, as long as an election board can limit time of registration to regular business hours and to only one, or a few, central locations, numbers of our members and other citizens will simply not undergo the inconvenience it takes to register and thus will be ineligible to vote. Registration has always proved the key to voting performance: In presidential elections more than 80 percent of registered voters turn out and cast their ballots, so if registration complications can be stripped away, people will vote. Even in the "off-year" elections of 1970, our best estimates are that 72 percent of the union members who were registered did turn out to vote.

Many citizens and commissions have proposed liberalized registration and voting laws, ranging from a door-to-door canvass by authorized persons to enroll all eligible citizens on the spot, at their homes, or declaring election day a national holiday to ensure everyone the opportunity to vote.

The AFL–CIO subscribes to many recommendations in the field of election law. The AFL–CIO Executive Council is on record for "immediate reform" of state and local laws, including "truly permanent, personal registration so that a citizen once registered, remains registered." The council has urged state AFL–CIO bodies to "work for longterm, grass-roots registration through precinct, neighborhood or mobile registration procedures." The council cited the example of Idaho, where house-to-house canvasses already are authorized and the voting reflects it, with Idaho getting 91.4 percent of its eligible voters registered in 1968. Now Sen. Daniel K. Inouye (D-Hawaii) has introduced legislation which would make this a national law.

Even Idaho imposes some odd restrictions on voting, including prohibitions against bigamists, polygamists and "persons who frequent houses of ill fame."

In seven states, a loyalty oath or some certification of good citizenship is a requirement for voting. In Mississippi, Nevada, South Carolina, Texas and Virginia, people who have taken part in a duel may not vote and in Connecticut "bad moral character" can bar you.

But these are the bizarre notes in election laws. More substantial and more effective in limiting voter participation are the regulations that make registration difficult for the broad mass of Americans who have never fought a single duel and do not have "bad moral character"—such as the rules that purge citizens from the registration rolls and force re-registration.

And it is still true in too many places that after all the obstacles have been overcome and the voter is registered, it must all be done over again at a later date. You may still live in the same place, hold the same job and be even more a part of the community, but for varying reasons in many places, you must recapture your right to vote by re-registering for a future election.

Colorado cancels a voter's registration for failure to vote at least once in any one-year period. California cancels a voter for failure to vote in the previous general election. Access to registration, too, differs from locality to locality and from state to state. In some, the number of days, hours and locations available are absurdly few, while in others real efforts are made to bring registration into the neighborhoods.

Following are some of the key steps required to eliminate the major obstacles:

Elimination of any residency requirements for presidential and vice-presidential voting. This would have to account for those who change addresses within the present 30-day limitation—by providing for some means for voting from their new address or an absentee ballot from their previous address.

A closing date for registration much nearer to election day than most laws now provide, the date to be determined by the minimum amount of time needed to process new registrations and transfers.

Laws that provide door-to-door registration and total canvassing of residences with the government carrying the primary responsibility for accomplishing them.

Total elimination of literacy tests and of state laws that bar from voting such groups as Indians or those living on federal lands.

Permanent registration and a simplified means, possibly by mail, of transferring or recording a change of name and change of address.

Lowering of the voting age for all elections to 18.

Creation of a national election commission and state election commissions where there are none, to supervise enrollment and to maintain complete and accurate records of all election returns as well as all laws pertaining to election jurisdiction.

Requiring local election commissions or agencies to keep up-to-date records of registered voters within their geographic area and a master alphabetical list as well as precinct lists, with these records available to organizations that are recognized as having a legitimate interest in them. These records should be regarded as public information, except for use for tax assessments or jury lists.

Equipping polling places with the facilities needed to eliminate long waiting periods and keeping polling places open throughout the day until at least 9 p.m.

Election and registration commissions should be required to furnish to interested parties precinct maps, locators, materials and other devices that are used in the determination of registration status. These should be furnished free or for a fee not exceeding actual cost.

Undoubtedly, other recommendations will be made to ease the path to the voting booth, but those steps represent a minimum need in increasing participation of the electorate. The whole point is to change our laws to encourage maximum citizen participation. Present laws are designed to exclude, to make difficult what should be made easy. This contrasts with the voting laws of most western nations, which take the responsibility for increasing voter participation.

Until Congress acts to establish national election laws, it is our hope that state AFL–CIO bodies and community labor organizations will step up the pace of their own efforts toward updating registration and voting laws within their areas.

We believe the people of this nation want better, fairer election laws. We believe the nation needs them if democracy is to flourish. We believe the time is ripe and that one day soon we will win through.

HERBICIDES AND THE GENEVA PROTOCOL

Mr. MONDALE. Mr. President, the Committee on Foreign Relations is now considering the Geneva Protocol to ban chemical and biological warfare.

The issue of those hearings comes down essentially to one question: Should the Senate ratify this protocol, as the administration asks, without a specific prohibition on the use of herbicides?

By every measure of decency and realism, I believe the answer must be unequivocal. Herbicides must be included in our understanding of the weapons banned.

The distinguished Senator from Wisconsin (Mr. NELSON) has long fought for such decency and realism on this question. As his testimony on March 18 showed so forcefully, to exclude herbicides would make a sham of any pledge to outlaw chemical warfare.

We are not only dealing here with some hypothetical horror of the future—cities ravaged by a plague or the unleashing of deadly gases in the madness of a world war.

The horrors of chemical warfare are here and now in the ravaged ecology of Vietnam, if only we have the courage to face the facts.

And it will take courage. For those horrors are there because we have made them.

I ask unanimous consent that Senator NELSON's wise testimony before the Foreign Relations Committee be entered at this point in the RECORD.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

HERBICIDES AND THE GENEVA PROTOCOL

Nine years ago the United States began a new chapter in the annals of war by adding chemical herbicides to our arsenal of weapons in Vietnam.

At first these chemicals were used on a modest scale to destroy vegetation in which the enemy hid, particularly along roads. As U.S. participation in the war mounted, our use of herbicides grew rapidly. Vast forest regions were sprayed from the air to deny cover to the enemy. The program was extended to food crops said to be for use by enemy troops.

Last December, a special commission sent to Vietnam by the American Association for the Advancement of Science, made public a preliminary report on the extent of the program and the damage done. Among the findings of this Herbicide Assessment commission were these:

Over the past nine years, approximately one-seventh of the land area of South Vietnam had been sprayed with chemical herbicides for purposes of defoliation and crop destruction. This is an area the size of Massachusetts.

Southwest of Saigon and along much of the coast of the Delta lie dense mangrove forests, covering about 3000 square kilometers. Probably half of these forests were sprayed. In areas checked from the air and on the ground essentially all vegetation was killed and there had been little regrowth of mangrove trees after more than three years. Such areas could no longer support most bird and animal life normally found there.

Approximately one-fifth of South Vietnam's marketable hardwood forests had been sprayed. A Commission summary said: "Aerial inspection of forests in a wide arc north of Saigon extending from the Cambodian frontier in the west to the South China Sea on the east showed more than half of the forest to be very severely damaged. Over large areas, most of the trees appeared dead and bamboo had spread over the ground." The Commission warned that this worthless bamboo could be expensive to eradicate and could retard the reestablishment of hardwood trees.

The Commission said 2,000 square kilometers of land in South Vietnam had been sprayed to destroy food crops. It estimated that this entailed the destruction of enough

food to feed about 600,000 persons for a year. "Our observations in Vietnam," the Commission said, "lead us to believe that precautions to avoid destroying the crops of indigenous civilian populations have been a failure and that nearly all of the food destroyed would actually have been consumed by such populations." The group said that though the food destroyed amounted to less than two percent of the national crop in any one year, the spraying had been concentrated in the food-scarce Central Highlands, the home of Montagnard tribesmen. "We believe," the Commission said, "the anti-crop program may have had a profound impact on a large fraction of the total Montagnard population of South Vietnam and we believe this to be a point for urgent consideration."

We undertook this unprecedented herbicidal warfare without knowing what the long range consequences would be. We still know little about the extent of food contamination or the effects on South Vietnamese health. The Commission collected samples of shrimp, fish, human milk and various foods to check them for contamination. At last report it was still in the process of developing methods of analysis. It noted an increase in the stillbirth rate at Tay Ninh City Provincial Hospital, located in an area of defoliation. But it said that without further study in both defoliated and nondefoliated areas the significance could not be assessed.

The herbicide program was conducted with utter disregard for the possible-long-range effects on the ecology of Southeast Asia—effects such as "laterization," or irreversible hardening of soil no longer protected from sun; the poisoning of aquatic life by runoff into the waterways; the elimination of species of animals; or the replacement of one kind of vegetation by another. We still do not know what the extent of the ecological damage will be.

From the beginning of the program up to the latter part of last year, the United States sprayed more than 100 million pounds of herbicide on Vietnam. Since the population of South Vietnam is about 18 million, our use of herbicides amounted to about 6 pounds for every man, woman and child in that country.

The program reached a peak in 1967, when 1,486,446 acres were sprayed for defoliation and 221,312 acres for crop destruction. In April, 1970, after evidence came to light that 2,4,5-T, widely used as a commercial herbicide in the United States, caused birth defects in test animals, the Defense Department halted use in Vietnam of compound Orange, which contained 2,4,5-T. By August, 1970, the Vietnam herbicide program had been cut back to a quarter of its peak size.

Now the program is being ended. On Dec. 26, 1970, the White House announced plans for "an orderly, yet rapid phase-out of the herbicide operations." During this phase-out it said, the use of herbicides in Vietnam "will be restricted to perimeter of fire bases and U.S. installations or remote, unpopulated areas." Since then, the use of herbicides for crop destruction has been ended. No date for ending the remaining program was given. There have been reports that officials planned to terminate it this spring or summer, but this has not been stated formally.

Our own use of herbicides in Vietnam appears to be ending. But what have we begun? Will other nations in future wage environmental warfare? And if so, what will be the consequences to the planet on which we live?

To begin with, it is possible that the South Vietnamese armed forces will continue at least some military uses of herbicides. On Jan. 26, 1971, as part of replies to a series of questions, the Department of Defense wrote my office that: "We do not know what plans the GVN may have for the future military use of herbicides."

Furthermore, if the United States is going to insist on the right to use this weapon, other countries will follow our lead, and we will see a worldwide proliferation of herbicides as a weapon. Japan recently ratified the protocol, adopting no formal reservation on the subject of herbicides, but agreeing with the U.S. interpretation in a statement made by the Japanese government in the Diet.

Compared with other weapons, herbicides are cheap. Those used for military purposes are made of the same chemicals manufactured as commercial herbicides. These can be purchased on the open market in a number of countries, including the United States, France, Italy, West Germany, Britain, the Soviet Union, Poland and Czechoslovakia. Spray tanks can be purchased in a number of countries and can be installed in many kinds of aircraft.

With a modest investment, any developing country, say in Asia, Africa or Latin America, could wage environmental war on its neighbor. It could destroy a food supply and bring starvation. It could pollute fishing grounds. It could destroy cash crops on which a country's economy depended. The world-wide environmental consequences of this kind of warfare could be disastrous. The life cycles of nature could be disrupted on a vast scale. Continents could be devastated and oceans polluted.

For all these reasons, environmental war should be expressly outlawed under international law.

One way to accomplish this would be to seek a new international treaty on the subject. But that would take time. A quicker way would be to work for general acceptance among nations of the premise that the Geneva Protocol of 1925, which bans gas and biological warfare, also outlaws military use of herbicides.

To bring this about, the first thing we must do is ratify the protocol. The protocol prohibits use in war of "asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices," and also prohibits "the use of bacteriological methods of warfare." It does not ban production of such weapons. It was signed at Geneva on June 17, 1925. The United States had proposed it and was one of the signatories. But it was never ratified by the U.S. Senate. More than 90 other countries have ratified it, including all of NATO except the United States, all of the Warsaw Pact including the Soviet Union, plus Japan, both Chinas, Israel and the United Arab Republic. President Nixon, to his credit, has placed it again before the Senate for advice and consent. It deserves prompt approval.

The second thing we must do is change the present official U.S. interpretation of the protocol with respect to herbicides. A letter by Secretary of State William P. Rogers, dated Aug. 11, 1970, which accompanied the protocol to the Senate states: "It is the United States understanding of the Protocol that it does not prohobit the use in war of riot-control agents and chemical herbicides. Smoke, flame and napalm are also not covered by the Protocol."

When that letter was written, the United States was still in the midst of its herbicide program in Vietnam. The administration hardly wanted the protocol to go to the Senate with the intepretation that it banned this program. But now that we are phasing out the herbicide program by spring we have nothing to lose by taking the position that herbicides are banned by the protocol.

To this end, I reintroduced in the Senate on Jan. 29 Understanding No. 1 on the Executive Calendar. It would express the view of the Senate that the protocol outlaws military use of herbicides. It says:

"At the end of the resolution of ratification, insert the following: 'It is the understanding of the Senate, which understanding inheres in its advice and consent to the ratification of the protocol, that the terms of the protocol prohibit the use in war of chemical herbicides.' "

The protocol does not explicity mention herbicides. It speaks of "other gases" and "all analogous liquids, materials or devices." Though herbicides may have been known in 1925, they had not been used in war.

A great majority of the world's governments have said they think herbicides are outlawed by the protocol. On Dec. 16, 1969, the United Nations General Assembly adopted a resolution which said that "any chemical agents of warfare" which "might be employed because of their direct toxic effects on man, animals or plants" were outlawed by generally recognized rules of international law embodied in the protocol. It was passed 80 to 3 with 36 abstentions. Only Australia and Portugal voted with the United States in opposition. The abstentions included most of our NATO allies and Japan. But the debate did not indicate that they wanted the right themselves to use herbicides in war. Canada gave as one of its reasons for abstention the following: "It would in our view, be an undesirable complication to seek to intepret the protocol, to which the widest possible adherence is being sought, at the very moment when a major power known not to agree with that interpretation has expressed its intention to ratify the Geneva protocol."

Now that we are ending our use of herbicides in Vietnam, what could we possibly have to lose by a world-wide understanding that such warfare is banned? How could we be disadvantaged? We certainly don't need herbicides to defend the United States.

Last August Sen. Charles Goodell and I introduced two amendments on herbicides to the Military Authorization Bill. One of these, Amendment No. 784, would have ended military use and procurement of herbicides by the United States. It was defeated 62–22. The Second, Amendment No. 863, would have banned the U.S. crop destruction program. It was defeated 48–33. During that debate, the argument used in behalf of the Defense Department was that the herbicide program was saving American lives. This argument could also be used for employing mustard gas or nuclear weapons in Vietnam. At any rate, it is not a relevant argument now that the herbicide program is being phased out.

Quite obviously, at the time of the August debate, the U.S. armed forces were in the process of rapidly reducing their use of herbicides in Vietnam with the intention of announcing an early termination. Yet the Defense Department did not make clear this intention at the time of the debate and permitted its supporters on the Senate floor to continue to make the old arguments. The Defense Department was aware in August of information on the danger of herbicides. We outlined this information in the Senate from earlier scientific studies.

Achieving clear international law outlawing military use of herbicides would be a step forward in the field of arms control. It may take many, many years to outlaw nuclear weapons, but we can ban this weapon now.

Technically, the Senate's understanding would not bind the administration, but in all probability it would become the official U.S. position. Even this would not bind other parties to the protocol but would merely state our own position. But this would be a big step toward achieving world-wide acceptance of the interpretation outlawing herbicides. Almost no one would be left to argue otherwise.

One proposal being made is that the Senate should not ratify the Geneva Protocol unless the Administration abandons its in-

terpretation regarding herbicides. In my opinion further delay in ratifying the treaty would be a serious tragedy. The momentum which President Nixon has started to get the protocol ratified would be lost. The executive branch might never change its interpretation, and we might never get back to ratifying the protocol. Disarmament talks are now going on at Geneva at which proposals are being discussed to build on the protocol and go beyond it. One of these is a British draft treaty to outlaw research, production and stockpiling of biological weapons. President Nixon on Dec. 1, 1970, endorsed the British proposal. The preamble of the British draft treaty specifically refers to the Geneva Protocol as the foundation on which it builds.

Both at the Geneva disarmament talks (the 26-nation Conference of the Committee on Disarmament) and at the United Nations, a number of countries have expressed the view that world-wide adoption of the Geneva protocol is a necessary step if there is to be further progress on arms control in this field. Statements to this effect have been made by India, Mongolia, the Netherlands, Nigeria, Pakistan, Poland and Sweden. The United Kingdom and Canada have also urged widest possible adoption of the protocol. In the light of all this, the ratification of the protocol by the United States at this time is clearly in our interest.

Another proposal before this committee is that of the Secretary of State. Under this approach the Senate would ratify the protocol with the Secretary of State's interpretation on the record. Secretary Rogers has made clear that this interpretation would not be a formal reservation to the treaty, and that the United States will not formally circulate it among other Governments which are parties to the protocol. But it remains the official interpretation of the administration. It is very explicit: "It is the United States understanding of the Protocol that it does not prohibit the use in war of riot-control agents and chemical herbicides. Smoke, flame and napalm are also not covered by the Protocol." This interpretation is at odds with that of most of the rest of the world. It would tend to erode the protocol.

One possible compromise would be to ratify the protocol with *no* U.S. interpretation stated on the record. The Administration could withdraw its interpretation. The Foreign Relations Committee and the Senate could adopt language to the effect that the questions of interpretation remain open. Then these questions of interpretation could be settled, as Secretary Rogers has suggested, by international negotiation, or as others have suggested, by the International Court of Justice.

But as matters now stand, if the case went to the International Court of Justice for an advisory opinion, the United States position, which presumably this country would argue to the court, would be that expressed by Secretary Rogers. This position should be changed. The best way to do it is by Senate adoption of Understanding No. 1.

In conclusion, a large part of our difficulty here is the fact that the Administration refuses to really face up to the problem. The problem is that we used herbicides in Vietnam on a vast scale. At first little technical information was available on the possible environmental and health consequences of our actions. Now all the scientific evidence indicates that this is a bad weapon; we should not have used it; it should be banned worldwide.

But instead of facing up to this, the Administration goes into contortions. It no doubt knew last August, at the time of the herbicide debates in the Senate, that it would be phasing out the program. It announced this phase-out in December, just three months later. Even then, the only reason it gave for the phase-out was a vague reference to the "changing nature of the war." Actually, the nature of the war hasn't changed that much. It is still a jungle war though South Vietnamese troops are taking over more of the combat responsibility. Next, instead of taking the forthright position that environmental war should be banned, the Administration, in its embarrassment, adopts a legally strained interpretation of the Geneva Protocol, one which is contrary to the views of a majority of members of the United Nations and one which is also contrary to stated U.S. aims of achieving worldwide acceptance of the Geneva Protocol and of using the Protocol as a foundation at Geneva on which to build further arms control agreements such as the British draft treaty on biological stockpiles.

For this or any other nation to resume environmental warfare by use of herbicides, in the face of the scientific information now before us as to the local and world-wide dangers, would be both irresponsible and immoral. Such warfare should be banned. The Senate should ratify the Geneva Protocol. It should ratify it with the understanding that it bands herbicides.

MINORITY ENTERPRISE SMALL BUSINESS DEVELOPMENT CO.

Mr. BROOKE. Mr. President, social responsibility, on the part of individuals, organizations, and corporations, is becoming a byword, as rightly it should. Those who have the talent and resources owe it to society and their country to put a portion of these assets to work helping others.

It also is important that we recognize those who have the foresight to undertake such endeavors and particularly members of the business community who take their responsibility seriously. Therefore, I invite the attention of Senators to an interesting story published in the March 1971, issue of Black Enterprise, a magazine which reports on minority business. The article, entitled "ITT: A Sense of Involvement," relates the experience of this large corporation in setting up a Minority Enterprise Small Business Development Co. in New Jersey.

With a pledge of $200,000, ITT has established the MESBIC, in cooperation with Rutgers University, to provide financing and management assistance to minority businesses. In the first 6 months of operations, about $50,000 of ITT's funds have been invested in 15 loans, including backing for a dry cleaner, two health spas, a restaurant, and a men's clothing store. This arrangement with Rutgers is unique among MESBIC's already established. The article points out that it is the first instance of a business school running this type of operation in experiment which may be a solution to the problem some MESBIC's have of finding experts who have the time to lend their talents to less sophisticated minority-owned business.

I believe all of us who believe strongly in the need for social responsibility will be interested in this unique project.

I ask unanimous consent that the article be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

ITT: A SENSE OF INVOLVEMENT

(By Lester Carson)

With a net annual income of nearly $235 million, International Telephone and Telegraph is the nation's ninth largest corporation in earnings and one of the most diversified. Through a series of post-World War II acquisitions, ITT has moved from its traditional position in telecommunications into a variety of businesses including book publishing (the Bobbs Merill Co.), baking (Continental Baking Co.) car rentals (Avis) and innkeeping (the Sheraton chain).

As ITT has grown, so has its involvement in black economic development. For instance, ITT Sheraton, which has headquarters in Boston, makes deposits in a black-owned bank in the city's Roxbury district. In Louisiana, ITT Continental Baking, which makes Wonder bread and Hostess pastries, has given technical advice on packaging to a black bakery cooperative. These incidents of ITT involvement with black business are essentially unilateral; ITT's only gain is enhancing its corporate image. Since last June, however, the company has been experimenting with a different approach that aside from aiding minority enterprises, may also "develop the kind of man who might someday be president of ITT," according to an ITT official.

ITT teamed with Rutgers, the State University of New Jersey, to launch a MESBIC (Minority Enterprise Small Business Development Company). MESBICs are private corporations licensed by the Small Business Administration to provide financing and management assistance to minority businesses. By law, they make loans or equity investments only in businesses that are at least 50 per cent minority owned, but not more than 20 per cent of the total capital needed. MESBICs get their initial money from a sponsor, usually a corporation, and this initial sum increases as the loans are paid off. If a businessman needs $100,000, the MESBIC would provide $20,000 by buying stock in the new business or by making a direct loan. Then it would help him find a bank to provide the remaining $80,000, 90 per cent of which usually is guaranteed by the SBA.

To provide the new businessman with the guidance he frequently needs to stay afloat, MESBICs usually rely on the resources available within a community. They enlist local business executives with free time, or utilize the skills banks of organizations like the Service Corps of Retired Executives and the Interracial Council for Business Opportunity.

The Rutgers-ITT arrangement utilizes these sources, but minority businessmen get additional help from second-year master's degree candidates in the graduate school of business administration who are assigned to loan candidates as "interns." The interns help the minority entrepreneurs with bookkeeping, display and sales promotion. They also help the borrowers state their case when they appear before the RMIC loan committee. An additional feature of the RMIC is the seminar on business techniques held at regular intervals at different locations in the state.

Early returns indicate the arrangement is performing well. In the first six months the RMIC dispersed or approved loans to 15 businesses. The total MESBIC funds invested amounted to about $50,000, a fourth of the initial investment capital of $200,000 put up by ITT. The corresponding bank share for the 15 loans came to about $211,000.

Among the new enterprises launched are a dry cleaners, two health spas, a restaurant-nightclub and a men's clothing store. Not included in these figures, it should be noted, are several borrowers who, through the RMIC

screening process, were found to be eligible for conventional loans and referred to banks.

MESBIC officials in Washington say the RMIC in New Jersey is the first instance of a business school running a MESBIC and they believe it is a possible solution to the problem some MESBICs have finding experts who have time to lend their talents to less sophisticated minority-owned businesses. "The advantage of a business school running a MESBIC is they have a lot of manpower," says Pete Hansen, who is director of MESBIC development in the Commerce Department's Office of Minority Business Enterprise. Hansen says letters have been sent to universities with business administration programs to see if they are interested in MESBICs. If enough schools show interest, he says, "there will be the added advantage of the university's competitive spirit. They like to see how well they can do."

Hansen says there are some drawbacks, however. "A lot depends on how many business schools are located in or near minority communities," he says. He also notes that the academic world has a tendency to be suspicious of the business world and says this could hamper MESBICs because they sometimes need help from "high level decision makers" in the corporate sector. "Rutgers appears to have avoided this," Hansen says, "but there is the danger of a university completely losing contact with its corporate sponsor."

The ITT official who is closest to the Rutgers scene is Charles G. Sherwood, special assistant to Harold S. Geneen, ITT president and board chairman. As chariman of the RMIC loan recommendations committee. Sherwood expresses misgivings over some aspects of the RMIC loan policy, but says it is doing well "within the limitations of its lendable capital."

One thing that bothers Sherwood is that not enough jobs are created when MESBIC funds are invested in dry cleaners and laundromats. "We would like to see more labor-intensive kinds of activity," he says, "but the problem is how to do it within the dollar limits." Sherwood says another problem is maintaining a reasonable return on MESBIC funds, especially since the RMIC does not want to charge interest higher than 10 per cent. He says some MESBICs charge interest as high as 15 per cent, but he doubts the wisdom of such practices. "Unless you charge usurious rates there is likely to be a gradual depletion of the MESBIC capital," he says. "On the other hand, higher interest rates would probably send the borrower under more quickly, trying to meet the payments." Sherwood says most RMIC loans have been at nine percent interest. Payment on the principal by law must be deferred for at least five years. MESBICs have no control over what the bank charges for its share of the capitalization. But MESBIC officials in Washington say the SBA is not likely to guarantee loans if the interest rate exceeds the formula, "prime rate plus two per cent." Thus, if the prime rate is six per cent, the borrower owes the bank eight per cent interest on the guaranteed loan. As subordinate lenders, MESBICs typically charge higher rates than banks.

Despite his misgivings, Sherwood says that one redeeming feature of the RMIC is the training it provides the MBA students, black and white. "We were looking for a school with a business program for minorities," he said. "and the choices narrowed to Rutgers and Howard University." He says Rutgers was selected because Howard was primarily an undergraduate program. "We felt that more mature students would relate better with businessmen," he says. RMIC officials expect an increase in the percentage of minority students studying business administration at Rutgers. These students reportedly will be given preference as interns to assist them in the transition to the business world.

One black New Jersey businessman is critical of the program at Rutgers. "Those students will birddog a man into bankruptcy," he predicts. The businessman said there are problems in running a minority business that students don't encounter in their academic world. "It's like going into the hospital," he suggested. "Would you want a staff intern or the chief surgeon to cut you open?" Indeed, even Sherwood agrees that friction occasionally develops between the students and loan candidates, especially the older ones. But Sherwood says when this occurs, "we supplement the MBA students with people in the business world." For example, he says a vice president of Bamberger's, New Jersey's largest department store, has been called in to help a black haberdasher, Juan Winter, prepare for the opening of a new store with a $125,000 MESBIC–bank loan. The store is scheduled to open this spring.

Winter insists that he and the intern had clashed briefly over deciding the best way to control inventory in Winter's present store, Jackie's Men Shop, on Newark's Broad Street. He says the problem was worked out to the satisfaction of everyone, "and I'm still the boss here." But he says the intern's knowledge has helped him immeasurably. For example, to boost sales both at the Newark store and at the new store, both of which are near college campuses, the intern has arranged for Winter to hold campus fashion exhibits. The exhibits will be run by students, who will be compensated with 10 per cent discounts on purchases from Winter.

In many ways Winter was a cut above the typical black entrepreneur who seeks an RMIC loan. He had worked for the Ripley retail clothing chain in New York for 20 years before going into business for himself. While at Ripley, he had risen from tailor to salesman to assistant manager of the chain's outlet in Times Square. He says he had been offered the managership of a Ripley store in Harlem, but he had already decided to open his own store, when this opportunity came. His first store was on Springfield Avenue in Newark's central ward.

Several years ago fire destroyed the store. He had no fire insurance, but he had enough money saved to open his present shop in 1969. But when he sought financing for the new store, in a shopping center near Woodbridge, N.J., the deficits from the Springfield Avenue fire returned to haunt him. He approached the RMIC. The selling point was his retail clothing experience. The RMIC lent Winter $25,000 and arranged for $100,000 in additional financing from the SBA and the Broad National Bank of Newark. "It was obvious that this man knows how to run a business," said Louis T. German, a Rutgers professor of business administration who is president of the RMIC.

From the standpoint of experience, Winter obviously was a more attractive loan candidate than Henry Jinks, who received a $6,000 loan in MESBIC funds to operate a health spa for women in his hometown, Orange, N.J., Jinks says he knew practically nothing about running a business. Now 30, he had literally made a living for 10 years with his brawn instead of his brain. He was a professional weightlifter who toured the country competing for prizes by flexing his muscles in "Mr. America" contests. Two years ago, Jinks married and decided to give up the biceps circuit. He and a white photographer became partners in the Paradise Health Spas, one in Orange and the other in Whippany. They used the MESBIC money to buy out the owners of the Whippany spa, and have applied for bank-SBA financing to equip both businesses with sauna baths and other gym equipment. In the meantime, Jinks says he's learning how to promote sales attending the Rutgers-sponsored seminars.

In the final analysis, the ITT-Rutgers example of running a MESBIC may solve the problem of overcaution in financing black businesses. Typically, this problem arises with banks. The bank president may be committed to helping black businesses, but, as Commerce Secretary Maurice M. Stans recently pointed out to newsmen, this commitment rarely filters down to the bank's loan officer, who feels that if he grants a loan to a business that ultimately fails, the failure amounts to a negative entry in his personnel folder. Therefore, the loan officer tends to be overly cautious.

Similarly, in many MESBICs the final authority in approving a loan is usually the representative from the sponsoring corporation. In the ITT-Rutgers program, most lending authority is vested in German, the RMIC president.

It is German whom the loan applicant first encounters at Rutgers, and if German turns down the applicant, his recommendation usually is accepted by the loan committee. "Sometimes I'll tell a man who knows all the answers and has lots of experience that he simply hasn't the personality for the kind of enterprise he has in mind," says German. "In most cases I am impressed by the individual, the guy who's got that extra something that will help him succeed where others have failed." Among German's advocates are Richard Marshall, a black investment analyst for the Prudential Insurance Company in Newark, and an officer in a MESBIC run by Prudential, the Prudential Minority Enterprise, Inc. "Sometimes a candidate approaches us for a loan that we can't grant because we're already over-extended in his type of business" Marshall says. "In that case we send him to see German and they usually take care of him." Marshall says German's greatest asset "is the fact that he's not overly concerned with his own personal box score."

THE QUALITY OF MERCY

Mr. PELL. Mr. President, in this Congress, we are engaged in a debate on different methods of improving the delivery of our health-care system.

We are talking about different methods of payments for health care service, different forms of organization, and new means of delivering health care.

In our discussion of these administrative, economic, and technical matters, I believe it is important that we do not forget that the health-care system concerns people.

The impact of the lack of health-care services for the poor was recently very poignantly described by Mr. Selig Greenberg in an article in the February issue of the Progressive magazine.

Least we forget the main reason why health care is a major issue in this Congress, I ask unanimous consent that the article, entitled "The Legacy of Neglect," be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

POVERTY AND HEALTH CARE: THE LEGACY OF NEGLECT

(By Selig Greenberg)

(The subject of medical economics will be fiercely debated in the Congress and the country this year. Scores of bills proposing a variety of approaches to the crisis of the high cost of medicine await debate and action. The Progressive has scheduled a series of articles over the entire year exploring various aspects of this basic issue. The first of the series is the work of Selig Greenberg.

prize-winning writer on medicine for The Providence Journal and Evening Bulletin (Rhode Island). His article is adapted from The Quality of Mercy: A Report on the Critical Condition of Hospital and Medical Care in America, to be published this month by Atheneum Publishers. Copyright 1971 by Selig Greenberg.—THE EDITORS.)

There is a slum neighborhood in Boston where infant mortality exceeds the level of the Biblical plague inflicted on ancient Egypt, when every tenth newborn child died. The infant death rate of 11.1 per 1,000 live births, or one out of every nine, in this section is five times greater than the national average, more than four times the average for the city of Boston as a whole and more than fifteen times the average for a nearby affluent suburban community which has only 7.2 infant deaths for every 1,000 births. In several other Boston ghetto areas, infant mortality rates run from double to more than three times the city-wide average.

This is just one example of how a gap of only a few blocks but of astronomical social and economic proportions in one of the nation's foremost medical centers may doom many to untimely deaths and others to lives of suffering and anguish.

In the South End, Boston's worst slum and the site of three outstanding teaching hospitals with a massive pool of medical talent, health conditions are fully as abysmal as in some of the most abject black poverty pockets in Mississippi. The prematurity rate, a major consequence of inadequate prenatal care and a leading cause of death shortly after birth, is seventy-five per cent higher for the South End of Boston than for the city as a whole. The incidence of tuberculosis is six and one-half times the average for the city. The death rate from tuberculosis, which with proper treatment is now generally curable, is more than seven times as high. A large proportion of the children are yet to be immunized against common childhood ailments, and a recent survey showed that more than half of the residents had not been to a dentist for at least a year. In Boston as a whole, the birth rate is fifty per cent higher than the death rate. But in one section of the South End the death rate actually exceeds the birth rate, despite the fact that the latter is forty-five per cent above the average for the city. . . .

Medical care cannot, of course, be considered apart from the crushing numbness of the ghetto life. Nor can the medical profession be held solely responsible for the ghetto's legacy of poor health. It is futile to treat symptoms and then send the patients back to the same degrading environment which helped produce their illnesses and will do so again. Dr. H. Jack Geiger, acting chairman of the Department of Preventive Medicine of Tufts University School of Medicine, has put it this way: "There is just no point in treating rat bites—and ignoring the rats. We cannot simultaneously have health and Harlems, health and slums, health and racial discrimination, health and a second- or third-class education."

Dr. Leon Eisenberg said it another way: "What one generation does—or fails to do—plagues its children. The adults those children become are adults warped by the childhood experience afforded them. They do as they were done to. The tragedy is reenacted for more than the third and fourth generation promised by a vengeful Lord. Not only do we owe it to ourselves to create a just society in our time; we owe it to our children and our children's children. The urgency upon us is greatest on behalf of those who even now are growing into persons less than they might have been—for want of food, for want of health, for want of dignity, for want of love."

This stinging excerpt from a recent talk by the chief of psychiatry at Massachusetts General Hospital and a noted authority on the psychology of childhood development is all the more poignant in the content of the appalling waste of human potential in the richest country in the world.

Dr. Eisenberg, a physician who has frequently voiced his passionate concern for removing the impediments to normal development so prevalent in our society, particularly in the wasteland of the Negro ghetto, also said:

"To be conceived black means that you are at risk while still inside the womb meant to shelter you. Racism takes its toll early, through class-related malnutrition and poor prenatal care. Black fetuses are aborted or born dead more often than white ones. More are thrust forth prematurely, at higher risk of damage to the delicate mechanisms of the brain. Once born, malnutrition, infection and inadequate health care exact their price in stunting of ultimate stature and in maldevelopment of the central nervous system. Before you know you are black, you will have experienced what it is to be black. But you learn the meaning of blackness soon enough in the crowded slum when you try to grow. You are two and a half times more likely to live in dilapidated housing units and three times more likely to be grossly overcrowded than whites who pay the same rent. Since your parents have had less education, your home fewer books, your community fewer educational opportunities, and your parents less know-how in preparing you for school, your development quotient, which at a year (if you were lucky enough to be born at full birth weight) was indistinguishable from that of your white brother, will have fallen well behind by the time you are three, and still farther behind when you start bravely off to school at five."

The evidence of the widespread neglect of the health of the young among the at least twenty-five million Americans classified as urban poor and the additional millions of rural poor is distressingly compelling.

The cycle of deprivation starts off with the lack of proper health care during pregnancy. Out of the some 3.5 million births occurring annually in the United States, at least 500,000 are by women who, according to official government reports, have received inadequate prenatal care or none at all. Authoritative estimates are that about half of the expectant mothers in poor families go through pregnancy without the required medical attention. The lack of such care and poor nutrition lead to a high rate of stillbirths and premature births. They also result in complications of pregnancy and childbirth than can inflict irreversible damage on the offspring and sometimes kill the mothers.

The close relationship between race and the risks of childbirth is shown by the fact that in Mississippi the Negro maternal mortality rate is more than six times the white rate. Nationally, a black mother's chance of dying from the complications of pregnancy is four to five times greater than a white woman's.

Prematurity holds many hazards for babies. Deaths in the first year of life are twenty times more common among premature infants than normal-term ones. Mental retardation occurs ten times more often in very small premature babies than in those born at full term. Ironically, the expansion of Federal maternal-health programs in the last few years has led to an increase in the prematurity rate and the death rate among such babies. This has happened because many women whose pregnancies formerly terminated in stillbirths are now able to deliver with some improvement in nutrition and obstetric care, but their infants are still too low in weight to survive.

Since the proportion of low-weight babies is highest among blacks, the increase in the death rate in the first days of life has been considerably greater for nonwhite than white infants. This has contributed to the dismayingly widening differential in infant mortality between the races. In 1950 the nonwhite infant death rate was sixty-six per cent greater than for whites. Now it is nearly ninety per cent greater—38.8 per 1,000 live births as against 20.6 for whites. In some urban ghettos the ratio of infant deaths not infrequently hovers around 100 per 1,000 births.

There are wide disparities in infant mortality between states, counties, and sections of the same city. Nationally, the death rates during the first year of life range from 19.3 per 1,000 live births in Utah to 40.4 in Mississippi. In the seventeen states with the lowest per-capita income the rates are forty per cent above the national average. In one county in Pennsylvania the rate for whites is ten for each 1,000 births.

There is one Mississippi county, on the other hand, with a rate of seventy-six per 1,000 for nonwhites. In New York City the infant death rates run all the way from twelve to forty-seven per 1,000 births, with the mortality incidence in parts of Harlem and the Bedford-Stuyvesant section of Brooklyn more than triple that of neighborhoods only a few blocks away. A study of infant mortality made in New York a few years ago held that forty-two per cent of the deaths could have been prevented. The U.S. Department of Health, Education and Welfare figures that more than 25,000 babies could be saved every year if the mortality rate in the ten per cent of the counties in the United States with the lowest incidence of such deaths were to prevail through the nation.

A chilling statistic is this: An infant born of poor parents in this country has twice as much risk of dying before his first birthday as does the non-disadvantaged child, and his chance of dying before the age of thirty-five is four times greater.

Even more critical than infant mortality, in the opinion of many authorities, is the problem of the heavy burden of damaged children, many of them with handicaps could have been prevented with better prenatal care.

About 250,000 of the babies born in this country every year are afflicted with congenital defects. An additional 125,000 are mentally retarded. Among the causes of inborn retardation, aside from prematurity, are the mother's malnutrition, a variety of virus infections developing during pregnancy, anemia, maternal diabetes or thyroid deficiency, and birth injuries. Nutritional surveys have found alarming rates of malnutrition in some poverty areas, with a grim chain of ill-nourished mothers giving birth to ill-nourished children with a high risk of mental retardation. Babies inadequately nourished in the womb or shortly after birth are likely to have impaired behavior and learning ability. An infant's brain attains eighty per cent of adult weight by the age of three, when the body weight is only about twenty per cent of that at maturity. Good nutrition during the first three years of life is therefore particularly important.

If the brain is dependent for its growth on biologic nourishment, the mind is no less dependent on psychological alimentation. The growth of the mind requires nutrition in the form of experience, language, and ideas. Just as malnutrition during pregnancy and early infancy can produce permanent stunting of the brain, so the lack of intellectual stimulation leads to stunting of the mind.

The tragedy of retardation at birth is compounded by the mental damage inflicted by the slum environment. "Five per cent of the children in this country are born mentally retarded," Dr. Joseph T. English, former director of the Federal Health Services and

Mental Health Administration, has said: "By the time these children reach the age of thirteen, nine per cent will be retarded. We produce almost as much retardation as is born, and seventy-five per cent of the mental retardation among children comes from the areas of poverty."

The devastating impact of the combination of poor nutrition and psychological deprivation is strikingly documented in the recent report of a study of black children in Bolivar County, Mississippi, where Boston's Tufts School of Medicine operates the Delta Health Center. Ninety per cent of the 344 infants in the study group were found to be anemic. Up to the age of thirteen weeks, these infants scored an average intelligence quotient of 117.5 as against a national norm of 100 for white children. By the end of the second quarter-year of life and through fifteen months of age, their functioning was roughly on a par with white norms. But from then on there was a sharp drop, and by the third year of life the IQs of the youngsters were down in the eighties. Verbal efficiency was found to fall off earliest and most drastically. These children, like countless thousands of others in urban and rural slums throughout the nation, were paying the penalty of growing up in homes where they had never seen a ball, a rattle, a bell, or a mirror, where sticks and rocks were the only toys, where rags and old clothing served for blankets, and where there were sometimes not even any eating utensils.

In homes so grossly lacking in the elementary essentials of daily living, children also are apt to suffer emotional damage. Mental disease not infrequently stems from parental deprivation—a lack of familial interaction with the proper balancing of love, support, and approbation on the one hand with direction, disapproval, and punishment on the other.

But while emotional disorders are widely prevalent among the young in impoverished families, the Joint Commission on the Mental Health of Children set up by the Federal Government estimates that only ten per cent of those who need treatment are receiving it. The incidence of emotional disorders and mental illness among the poor, who are exposed to numerous stresses, is estimated to be between five and six times greater than for those with higher income. And since nowhere is race or class discrimination more conspicuous than in the psychiatric field, the poor are less likely to get timely and adequate help and more likely to wind up in the desolate warrens of the state mental hospitals.

The gap between need and availability of services prevails in all areas of health care.

"It is a mockery of American tradition and our national honor that only forty per cent of poor children with handicapping conditions are getting the required care," Dr. George S. Silver, former deputy assistant secretary in the Department of Health, Education and Welfare and now on the faculty of the Yale School of Medicine, has said. "Why should one million poor children who need glasses not have them? When we know that the end effect of amblyopia [blindness in one eye] is preventable, why should two per cent of all children still suffer from it? Why should nearly seventy-five per cent of nonwhite children not be getting dental care, although conservative estimates show that ninety-seven per cent of all children require some dental care?"

The Department of Health, Education and Welfare compiled several years ago a shocking review of the prevalence of handicapping conditions among the young. The department said it was estimated that more than 11,400,000 children, or twenty-three per cent of all youngsters, had eye conditions requiring specialist care; that 4,600,000, or 8.5 per cent of the total, were emotionally disturbed; that 2,830,000, or five per cent, had speech disorders; and that 2,150,000 had orthopedic conditions, and 2,130,000 were suffering from hearing impairments, in both cases a little under three per cent of the total. About one-third of these conditions could be prevented or corrected by case-finding and treatment in early childhood, according to the official report, and nearly two-thirds could be prevented or corrected by appropriate care up to the age of eighteen. "In low-income areas," the report said, "between ten and twenty-five per cent of children suffer from one or more untreated chronic conditions. Most poor children go without adequate preventive or remedial health care."

The deprived young, most of them unable to break out of the vicious cycle of poverty as they grow up, remain the stepchildren of our medical-care system throughout their lives.

"The poor are likelier to be sick, and the sick are likelier to be poor," Dr. Geiger has said. "Without intervention, the poor get sicker and the sick get poorer." Dr. Alonzo S. Yerby, a distinguished Negro physician and former New York City hospital commissioner who is now associate dean of the Harvard School of Public Health, has described the health care of low-income Americans as "a national disgrace." That this is no exaggeration may be seen from these facts, all of them culled from official government statistics:

The average life expectancy of an American Negro, who is most likely to be economically disadvantaged, is nearly seven years lower than that of a white American.

Of every 1,000 whites in their late forties, five will die in the coming year. But of every 1,000 Negroes in this age group, ten will die.

Among the poor, the incidence of such chronic conditions as heart disease, high blood pressure, arthritis, and visual impairments is four to eight times as high as among higher-income people. Their rate of orthopedic impairments is more than twice the national average.

Tuberculosis, whose spread is generally attributed to inadequate nutrition and crowded living conditions, has an incidence among blacks more than double that of whites. The Negro death rate from tuberculosis is almost four times as high. Blacks die from influenza and pneumonia at a rate which is more than 100 per cent higher than for whites. They also have a higher mortality of cancer of the cervix, a malignancy almost entirely curable with early diagnosis and treatment.

Not only is hypertension much more common among Negroes, but it is prevalent in a more severe form. In alluding to this, Dr. John H. Knowles, general director of Massachusetts General Hospital, has said: "We know that poverty breeds physical, mental or social disease. And I stress the word 'disease' to mean just exactly what the word means literally: a lack of ease. But to be poor *and* black is the most difficult combination of all. If a man doesn't have a job, can't get enough food, can't have transportation to reach a job or a hospital clinic, cannot become educated or to see his children being educated adequately, he is in a state of disease. In him it may be manifested by high blood pressure."

In families with incomes of $10,000 or more, adults average five physician visits a year. The figure is only 2.9 visits when family income is under $3,000. An even sharper disparity exists in the frequency of dental care. And a large proportion of the visits paid by the poor to dentists are for extractions, whereas much of the care sought by the more affluent is for examination and cleaning of teeth.

The report of the large-scale public-opinion survey sponsored by the Blue Cross Association concluded that "over one-third of this nation feels ill-cared-for in its medical needs." While this conclusion was based on the widely prevalent complaints of people of all income levels regarding the accessibility and costliness of good health care, the deepest anxieties and frustrations were expressed by the poor.

Sixty-seven per cent of the low-income people questioned said they were concerned about where they would get the money to pay a doctor, and sixty per cent expressed open worry over who might take care of them during a serious illness. Six out of ten said that, despite the much advertised availability of free medical care in an emergency, they were worried over whether or not it would really be there when they needed it.

Particularly startling were the survey's findings about psychosomatic conditions. Sixty-five per cent of those interviewed in the low-income group described themselves as "worried and nervous"; fifty-eight per cent said they were "lonely and depressed"; thirty-nine per cent reported having difficulties sleeping. The poor have a high incidence of nervous tension, back trouble, ulcers, headaches, sore throats, bad coughs, indigestion, constipation, and exhaustion. They trail the affluent only in disorders which they cannot afford, notably sunburn and allergies.

" 'Linking sick' is the prevailing condition of poverty in America today," the survey report said. "For two out of every three people in the population, when they are 'feeling fine,' it means that nothing is the matter with them. But for nearly two out of every three ghetto blacks in the inner city or rural-poverty whites in Appalachia, 'feeling fine' means literally 'not as sick as usual.' "

Most Americans are aware of the fact that, generally speaking, each succeeding generation is taller, weighs more, and is in better physical shape than the previous one. When asked by the survey interviewers to compare the health of their own family with times gone by, three-quarters of the high-income people answered unhesitatingly that their health is better. But when inner-city blacks or the Appalachian whites were interviewed, the story was the reverse. By fifty-one to twenty-nine per cent, Negro ghetto dwellers said they felt their health has deteriorated and was worse than that of their parents or grandparents. Rural-poverty whites expressed the same sense of discouragement over their health by an even more sizable sixty-three to sixteen per cent. For the poor, illness is something that is constantly with them, a seemingly permanent condition. As one of them put it, "I always got a visitation from the miseries."

The unequal toll of disease and death, particularly when racial discrimination is superimposed on the effects of social and economic deprivation, is a standing indictment of our failure to assure equal access not only to health services but also to adequate housing, nutrition, and education. "There is a phrase in the Book of Common Prayer," Dr. Geiger said, "that is tragically precise in describing our national performance with respect to the health of the Negro population. It reads: 'We have left undone those things which we ought to have done; and we have done those things which we ought not to have done; and there is no health in us.' "

Many of our doctors may be the best in the world. But in health we are still a backward country.

CONGRESSIONAL PROBE IN VIETNAM

Mr. HATFIELD. Mr. President, throughout the Nation there is growing concern over the lack of a constructive role on the part of the Congress in the conduct of American policy in Southeast Asia.

It is my firm belief that the Congress has a constitutional responsibility to determine, with the President, the circum-

stances under which American troops will be committed abroad. The security of this Nation lies in the hands of its Federal Government; it is neither reasonable nor right for the full burden to fall upon one man—the President.

It was with this view in mind that the distinguished Senator from Massachusetts (Mr. BROOKE) recently introduced in the Senate a resolution calling upon Congress, through its committee system, to consider all of the factors involved in our disengagement from Vietnam, and to come forth with joint recommendations which could have the support of this Government and of the American people.

Recently, this proposal received the strong editorial endorsement of the New York Times. I ask unanimous consent that the complete text of the editorial be printed in the RECORD.

There being no objection, the editorial was ordered to be printed in the RECORD, as follows:

[From the New York Times, Mar. 21, 1971]

CONGRESSIONAL PROBE IN VIETNAM

At a critical moment of the Korean War, after President Truman had fired General MacArthur, Congressional hearings probed deeply and publicly into all aspects of that controversial Asian conflict. The highest civilian and military officers of the executive branch, with the important exception only of the President, appeared before joint sessions of the Senate Foreign Relations and Armed Services Committees in May-June, 1951. They submitted to 43 days of questioning, during which more than 3,000 pages of testimony were taken to enable the Congress and the country to come to a judgment on a major undeclared war into which the country had been taken, without consultation, by Presidential decision.

In contrast, six years after the bombing of North Vietnam had initiated large-scale American participation in another undeclared land war in Asia, Congressional hearings have been brief, occasional and fogged by secrecy. The Congress itself bears heavy responsibility for the fact that it was not adequately consulted about the succession of steps that involved the country in its second most costly foreign conflict.

The complaint that the principle of executive accountability to Congress and the country has been violated by the refusal of the President's men to appear for adequate questioning is an indictment of the Congress as much as it is a criticism of the executive. For control of the purse strings undoubtedly enables the Congress to compel executive branch testimony, even if that weapon is in practice largely unusable in curbing the Commander in Chief's power to involve the nation in war or to conduct such a war.

The question that demands probing now has been put before the Senate most clearly by Senator Brooke, Republican of Massachusetts: "How best terminate the American involvement in a manner which will maximize the chances for an early and enduring peace in that region?" The manner in which Congress can best assert its influence in answering this question lies in Mr. Brooke's draft resolution calling on the Senate Committees on Appropriations, Armed Services and Foreign Relations to conduct joint hearings and report conclusions within 90 days.

Is President Nixon, through his Vietnamization policy, seeking American victory or withdrawal in Southeast Asia? Some of Washington's most acute observers, inside the Administration as well as outside, disagree on the answer to this question. Defense Secretary Laird has indicated that American forces would be down to 50,000 or less by the end of 1972; but a few hours later Secretary of State Rogers denied that Mr. Nixon had taken any decision on future cutbacks, the size of the "residual" American force or the date when it would be reached.

Is there any way in which the Paris negotiations can be reactivated? Do the impending National Assembly and Presidential elections in South Vietnam offer a new opportunity to achieve a political settlement? Can the war be ended and American prisoners be released by Vietnamization and other proposals for American withdrawal or is a negotiated settlement the only hope? Would a broader government in Saigon open the way for such a negotiation?

The Brooke resolution offers no answers to these critical questions. What it offers is a procedure through which the Congress can involve itself in shaping policies to terminate the Vietnam war and, perhaps, compel a reexamination of these policies by the Administration. There is no better way for the Congress to reassert its constitutional prerogatives in the fields of foreign policy and defense than to exercise and thus to reinvigorate its investigatory powers.

AN UNHAPPY ENDING FOR WYOMING

Mr. HANSEN. Mr. President, many people are disappointed with the intercity railroad passenger service routes designated this week by the National Railroad Passenger Corporation. I am one.

Under the Corporation's route plan, Wyoming will lose the east-west passenger service that was established more than 100 years ago, before statehood was granted to Wyoming Territory. Wyoming will become one of seven States which will not be served in any way by railroad passenger trains.

The mere fact of discontinuance of all service to or through my State is a bitter disappointment to me and to Wyoming citizens, who have fought so hard in recent weeks to convince the Railpax people of the merits of Wyoming's facilities. But even harder to swallow is the rationale the Railpax incorporators have advanced for choosing a route through Colorado, instead of Wyoming, to connect Chicago and the west coast.

In Monday's announcement of the routes chosen for the system and the reasoning applied in making the choices, the incorporators indicated in case after case that a particular route was selected over a possible alternative because of shorter distances, superior performance, or more adequate equipment. But in the case of the Wyoming versus Colorado routes, the incorporators apparently ignored such factors as distance, speed, efficiency, and condition of trackage and equipment and made their decision to use the single-track system of the Denver & Rio Grande Western Railroad, as opposed to the double-track system of the Union Pacific, on the basis of scenery.

If Congress envisioned development of a national passenger service network designed to serve scenic areas, then it failed to say so in the legislation creating the Railpax Corporation. Indeed, if scenery, as opposed to speed and efficiency, was to be a dominant consideration, I would have proposed construction of a railroad line across northern Wyoming, where some of the Nation's most magnificent scenery is located.

As it was, I believed, and still do believe, that when Congress set up the Corporation last year, it had in mind the preservation of passenger service in this country by making it as fast, efficient, and convenient as possible. On this basis, I strongly feel the incorporators made the wrong decision when they chose the Colorado route over the Wyoming route as a connecting segment of the service between Chicago and San Francisco.

My opinion of the Corporation's decision is shared by the president of the Colorado Railroad, the Denver & Rio Grande Western, who has a very sound reason for wishing that the Wyoming route had been designated, rather than his own line. Mr. Gus Aydelott, president of the DRGW, has called attention to the single-track system maintained by his company, and notes that his ability favorably to compete with the double-track Union Pacific for freight business will be impaired because of the emphasis on passenger service which the Denver & Rio Grande Western will have to maintain.

Mr. President, there are other Senators who feel the Railpax incorporators made some errors in setting up the basic system. Legislation is pending, which I cosponsored, to guarantee passenger service to at least one major city in each of the contiguous States. Hearings on this legislation would afford an opportunity for Senators to learn what prompted the incorporators to make the decisions they made, and to evaluate the benefits to the Nation and to the people of individual States which may or may not accrue from the system developed.

I am hopeful such hearings can be scheduled soon.

So as to call to the attention of other Senators what I feel are obvious disadvantages of routing passenger service through Colorado, rather than on the faster, more efficient, and better equipped system across Wyoming, I ask unanimous consent that the RECORD reflect the contents of a letter I wrote to the Chairman of the National Railroad Passenger Corporation on March 4, and of an article written by Stephen Aug and published in the Washington Evening Star of March 23 concerning the possible effect passenger service will have on the freight business of the Denver & Rio Grande Western.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

MARCH 4, 1971.

Hon. DAVID KENDALL,
Chairman, National Railroad Passenger Corporation, Washington, D.C.

DEAR DAVE: As a follow-up to our telephone conversation of March 3, I am writing to outline the factors which, I believe, make necessary the utilization of the Union Pacific Railroad's existing track system across Wyoming in the national railroad passenger service system you are developing.

On the basis of what I have been able to learn about the existing passenger system across Wyoming and the alternative route through Colorado, the Wyoming route would

best serve the requirements and objectives of the Railpax System.

The route across Wyoming is double-track all the way, while the alternative route through Colorado is almost all single track and must service both freight and passenger trains. This means that the Union Pacific is able to give priority right-of-way to passenger trains, while still maintaining freight service, thus providing more efficient passenger service than would be possible on the single-track Colorado route.

This trackage and passenger equipment of the Union Pacific through Wyoming is in excellent condition. The Union Pacific maintains two of the best passenger trains in the nation—the City of Los Angeles and the City of Portland—which have provided good service for years.

The Union Pacific maintains dining car service, lounge service and sleeping car operations on its route across Wyoming, has the most powerful engines, and has some of the best maintained track and track structure in the world providing for smooth travel.

The distance between Chicago and the West Coast via the Colorado route is 2,394 miles. The distance, utilizing the Wyoming route, is 2,299 miles—a reduction in the distance traveled of 95 miles.

The estimated travel time between Chicago and the West Coast, utilizing the Colorado route, would be about 63 hours on the westbound trip. Up to 10 hours, one-way, would be required for switching and terminal delays. In contrast, the travel time between the same points using the Union Pacific route through Wyoming would be 46 hours on the westbound trip and 47 hours returning east—a saving in travel time, one-way, of 17 hours.

The Colorado route must traverse mountainous terrain, while the Wyoming route runs straight across the plains of the southern part of the state, by-passing terrain which would require a circuitous track system and the climbing of steep grades—a factor of considerable significance in the winter time.

In addition to what I feel are obvious advantages to Railpax of the Wyoming route, as opposed to the Colorado route, I would like to emphasize the importance of continuing this service from the standpoint of Wyoming's economic stability and growth.

During 1970, about 55 persons per day boarded the Union Pacific's trains in my state, and 53 people per day got off. During vacation and holiday seasons, it is my understanding that these use figures increased to the point where the railroad's passenger operation just about break even, financially. Most citizens were well aware that the railroads were less enthused about maintaining passenger service. Schedules were not carefully maintained, delays in being served by agents and others, were commonplace.

The use of trains has been discouraged by most railroads in a number of ways. Were the routes across Wyoming to be continued under the Railpax System, and the public made aware that, henceforth, service would be efficient, on time, and dependable, and that they were welcome on the trains, usage would increase significantly.

If the traveling public had assurance that such service would be permanent and stable, a public transportation network throughout the rest of the state could be developed from a base of dependable rail passenger service across the southern half of Wyoming. Presently inadequate and undependable bus service could become dependable, serving the northern half of Wyoming from the rail passenger terminals of the south. Wyoming is transportation poor, and this rail line could serve as a foundation for building a reliable network, utilizing other modes, such as buses.

Wyoming is noted for its outstanding recreational facilities, which attract millions in the summer months and which also are popular in the winter. The passenger train could become the primary source of dependable transportation for a huge number of people who would use it to take advantage of these facilities. Presently, winter development of recreational areas is greatly restricted by the uncertainty of flying weather, compounded by inadequate schedules and few cities being served.

With regard to industrial development, obviously, dependable freight service is required, but industry cannot exist without people, and people need transportation facilities, too. In Wyoming, the passenger train is a very important means of public transportation, since other modes are so inadequate and subject to such hindrances as severe winter weather. Airline service has never been adequate, and continues to decline. Bus service is inadequate. The passenger train offers the most promise for building a public transportation system.

The growing energy crisis facing us underscores the national significance of the development of Wyoming's oil fields, petroleum reserves, coal beds, oil shale and uranium deposits. Wyoming stands fifth in the nation in petroleum reserves. Wyoming's vast coal deposits are the lowest in sulphur content of any reserve in the nation. We rank near the top in uranium discoveries, and Wyoming will probably be in first place in the next few years in the production of this source of energy.

Wyoming is part of a tri-state area with oil shale deposits that have the potential for producing more oil than has been consumed, plus that in known reserves, as of today. Our trona beds produce most of the soda ash and chemicals coming from this product consumed in this country, and expansion continues apace. Wyoming's bentonite is shipped all over the world, and our taconite deposits produce the highest quality steel made. Most of the industry connected with these resources would be located in the southern part of Wyoming, where the UP passenger system is now located.

Thus, we have the resources to bring about great industrial development, which means jobs and people. Only by maximizing these opportunities, including recreation, can Wyoming add to our nation's strength and grow as a state. These goals will require adequate and dependable public transportation.

Wyoming's population has not grown a great deal for several years. Despite this, our unemployment rate is significantly below the national average. We have so much room to grow, and so much potential for growth. The inclusion of the Union Pacific passenger trains in the Railpax system is, admittedly, only one of many factors involved in plans for Wyoming's future. But it is a very important factor, and deserving of consideration by the Railpax incorporators.

Enclosed are copies of recent press stories from the newspapers of my state, which will indicate the importance of this issue in Wyoming, and will also give you an idea of the different approaches being taken.

In consequence, both from the standpoint of adding to the Railpax system, and enhancing Wyoming's future, the inclusion of this Wyoming route in the system you are developing is essential.

Your consideration of Wyoming's case is deeply appreciated.

Sincerely,

CLIFFORD P. HANSEN,
U.S. Senator.

[From the Washington Star, Mar. 23, 1971]

SMALL LINE FIGHTS RAILPAX ROUTING ON FREIGHT LOSS

(By Stephen M. Aug)

The new National Railroad Passenger Corp. (Railpax) was formed to save declining rail passenger service, but the president of a small Western railroad says it may ruin his line's profitable freight business.

Gus B. Aydelott, president of the Denver & Rio Grande Western Railroad said in a telephone interview that the heavy federal backing of Railpax, and the anticipated government hand in running the trains after May 1 may adversely affect his control of his own railroad.

Aydelott is among a number of railroad officials who have expressed these thoughts privately, but his doing so publicly is in reaction to yesterday's decision by Railpax officials routing the sole remaining transcontinental passenger service between Chicago and San Francisco via the scenic Colorado Rockies—and the D&RGW.

ARGUMENT OUTLINED

Aydelott complained that placing this passenger service on his small line and at the same time removing all passenger service from his principal competitor—the vast Union Pacific Railroad—may make it almost impossible for him to compete with UP.

"Our trouble is we have to compete with Union Pacific which is a flat country double-track mainline railroad. We have a single track mountain line," Aydelott said.

Aydelott contended that delaying his railroad's high-speed freight operations—as passenger trains would—could wind up in a complete loss of the auto parts business for which it competes with Union Pacific. He said he was "afraid Railpax will cut (make up) the schedules suiting themselves . . . and that they would enforce them rigidly." D&RG runs one round-trip passenger train three times weekly now—the same is anticipated under Railpax.

At present, Rio Grande receives about $10 million a year carrying auto parts from Denver to Ogden, Utah. The railroad's total freight revenues are about $98 million.

Aydelott conceded, however, that it takes 33 hours to ship auto parts from Kansas City to Ogden, via a combination of railroads including Rio Grande. UP does the job in about 24 hours, all on its own railroad. He contends that auto assembly plants must have the parts by midnight for work the following morning. Rio Grande delivers the parts by about 4 p.m. now.

$20 MILLION SAVING

Union Pacific, it is understood, stands to save about $20 million by no longer having to operate any passenger service—$15 million in salaries and $5 million in fringe benefits. This, Aydelott points out, compared with the total profit D&RG made last year: $13 million.

The corporation (Railpax) made public yesterday the routes over which its 184-train system will operate.

Railpax was created late last year by Congress as a means of saving rail passenger service. Starting May 1 it will take over all intercity rail passenger service—and railroads that sign contracts with it may then discontinue all their remaining passenger trains, except commuter service, which is not involved.

In announcing the decision on routes, the board of incorporators of Railpax told newsmen that they anticipate the 184 trains to be run after May 1 will provide about $150 million in revenues. Anticipated expenses are $250 million in the first year.

TOO MANY VARIABLES

Arthur D. Lewis, one of the incorporators, declined to predict when Railpax would become profitable—although Department of Transportation estimates have indicated it could become profit-making in two years. "There are too many variables at this time to make a forecast," he said, adding that the three-year forecast is "certainly a feasible one."

The $40 million in federal funds Railpax already has to start operating May 1 will be beefed up by an estimated $215 million which the railroads would pay to join the corpora-

tion—but these payments are to be spread out over three years.

Frank S. Besson Jr., a retired Army general, and one of the incorporators, said also that the corporation has not yet made a decision on whether to buy or lease equipment—or simply to lease service as a package from the railroads.

ATTACKING THE DEFICIT

But David W. Kendall, the chairman of the incorporators, said the corporation plans to use the best equipment available—1,500 passenger cars out of 3,300 existing—operated by 22 railroads. He said the corporation's first job will be to halve the current $235 million deficit the railroads are sustaining operating passenger trains.

But on May 1, when operations begin, Kendall foresees no immediate change—except there will be about half the number of trains now running. "We will use obviously the same cars, the same equipment and largely the same personnel," Kendall said. But he promised a brighter future.

Meanwhile, said another incorporator, Catherine May Bedell, former Republican congresswoman from Washington, anyone who wants to may place a reservation on any train the corporation will run next summer. Eventually there will be a centralized reservation system, she said, but meanwhile, all railroads have agreed to start accepting reservations now.

THE TRAGIC EFFECT OF DRUGS ON YOUTH

Mr. BAYH. Mr. President, I recently received from a constituent one of the most moving and tragic letters to cross my desk during my 8 years in the Senate. This man's young grandson, a high school student in Michigan who had fallen prey to a local drug peddler, took his own life with a .22 caliber rifle while apparently undergoing the agonies and delusions induced by a "trip."

In an address conveyed to all students, the principal of his school described in dramatic terms the events in the last hours of this young man's life leading up to his death and appealed to anyone to disclose any information he might have about those selling drugs to the youth of the community. It seems to me, Mr. President, that wide publicity should be given to events of this type which so clearly illustrate the terrible consequences so often befalling those who become innocent victims of the drug and dope peddlers.

In order that others will have the opportunity to read about this sorrowful tragedy and perhaps profit from this experience, I ask unanimous consent that the letter from my constituent and the statement by the high school principal both be printed in the RECORD.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

LINTON, IND.,
February 26, 1971.

Senator BIRCH BAYH.

DEAR SENATOR BAYH: I'm sending you a story by a high school teacher in Waterford, Michigan. It's about my grandson. I think it a shame for a nation like ours to let this drug racket to get as it is. While we have spent $25 billion plus—and I don't know how much more just sending rockets to the moon—which I think is useless. Also the billions of dollars we have given to foreign aid and the war in Viet Nam, Cambodia and Laos, in which our boys are dying everyday and we have no right to be in that war.

I know lots of other people who think the same as I do about these conditions.

Senator Bayh, I helped elect you to the Senate, and you have done some good work. Now I'm asking that you try to get the Senate to do something about this drug business in the schools. Chemistry students learn to make L.S.D. Why is it taught to them? I hope this 4 page story will be read from the floor of the Senate. For the sake of our country our children and grandchildren and for God's sake Senator do something about it.

Sincerely yours,

RICHARD F. THORNTON.

I have a story to tell—it is not fictitious—it is a true story which began here at Waterford-Kettering last Thursday, February 11, 1971. I have not been free to tell you this, until this moment, and it is at the request of a boy's mother that I tell you now.

Last Thursday, one of our students, Rick Thornton, got up to get ready for school. He kidded with his mother who was busily getting breakfast of bacon and eggs—for Rick always ate a full breakfast. As she was preparing the meal, Rick called out he thought he had time for a shower—it was only 6:30. When breakfast was being served, his best friend came in and sat at the table while Rick finished eating. In kidding with his mother, he said "I don't feel like going to school today." His mother responded by saying "You had better be there unless you are sick. Don't you feel well?" Rick laughed it off, and the two boys left for school.

When they reached school, the two boys lingered in the main lobby and eventually decided to go through with their plans to skip school for the day. They were joined by another boy who agreed to go with them and provide his home as a place to stay. As they made their plans, Rick said he wanted to take a trip. His friend advised him against this, but Rick said he really wanted to. An ever-ready pusher had come to school late and was in the boys' lavatory in the main lobby. Rick allegedly made a buy of LSD for $2.00. Soon afterwards, he took the pill, turned to his best friend and said, "So long, friend. See you later."

The three boys then left the school and walked to a house in a nearby subdivision. While on the way, they stopped off at Huntoon Lake and sat on the raft there. Meanwhile, back at the school, a student came in and said she wasn't feeling well and wanted to go home. A parent was called but had no way to come to the school. Apparently, the student had thought of this, and she had brought a senior boy with her to provide a ride. This was agreeable with the parent.

The boy, however, loaded his car with skippers—seven in all—and proceeded to the home of the girl. As they passed Huntoon Lake, they spotted Rick and his friends and two of the boys got out of the car and went down to the raft. This increased the party at the raft to five.

From there, the boys proceeded to their destination. They sat around talking during the morning hours, but it was apparent that Rich was extremely ill. He complained that he thought he was going to swallow his tongue. One boy held on to his tongue while another went to get some water and dribble it down his throat. This did not seem to help. Rick thought the best thing to do was to go home and get his mother to take him to the hospital. The boys were worried whether Rick could make it on his own, but Rick insisted on going home alone. It is about a twenty minute walk down Airport Road. The boys gave Rick sufficient time to get there, then they began calling every ten minutes or so to see if he had made it. But there was no answer. The school also called about 11:00 to see why Rick's name was on the absence list, but there was no answer.

Apparently, Rick went up to his room and lay on the bed. His mother later said there was an imprint on the bed. In the meantime, Rick's mother returned home to pick up some things and immediately left for her work, not realizing her son was on the bed upstairs. What happened then is simply guesswork. In that lonely hour, apparently the affects of the drugs were so severe that Rick preferred death to enduring the hallucinations he was suffering. He descended from his room and picked a .22 calibre rifle from his dad's gun case, went out on the back patio, sat down, leaned his head against the barrel and pulled the trigger. This was about 12:30. Rick's father came home from work much later—about 4:30—entered the front door, turned on the TV, and proceeded to the refrigerator for a snack. As he looked out the kitchen window, he saw his son in the snow surrounded by blood. He went out, and as he says, "Rick must have been dead for some time, the snow was melted all around him, and he was so cold."

Back at the house of his friend, one boy decided to return to school about 11. Two others returned later and caught the 2:30 bus home; one remained at the house.

On Friday, friends of Rick's reported to my office and told the story. It was heart-breaking, recounting the chain of events, errors in judgment, tragic mistakes made during those fateful hours. There was guilt expressed, there was anger expressed towards those who brought drugs into the school for distribution—not realizing the serious consequences of their acts.

I told the group that we were aware that a drop had been made about 7:35 in the parking lot, and that the police had been notified; that we were anxious about unusual behavior in the student body. But we had nothing concrete to go on. Friends were anxious to prevent a re-occurrence of this kind, but still reluctant and afraid to supply details. The Narcotics Bureau of the State Police Department arrived at the school, as did the Waterford Police. Investigations were made.

I am not free to divulge the direction the police are taking, except to say that Rick's death is not fully attributed to the fact that he pulled the trigger of a rifle. His death was staged when he made a $2.00 purchase in the boys' lavatory in the main lobby of our school; it was staged when some big-wheel supplier contacted students in our school to act as pushers.

Many of you know more of the story than I—but are afraid. May I tell you this: when I talked with Rick's Mom and Dad yesterday, their only comfort now is that in Rick's death many other students will realize the seriousness of drug abuse and be willing to do something about it. We on the staff have long realized that there are drugs in the building, that many of you are using them, and that many of you need help. We have talked with you, we have counseled you, and we have warned you, but we do not know if we are effective. We know that there are students who bring drugs into the building to make a fast buck. These persons are often suspected, but we do not have the proof to take action. Students simply will not talk. I plead with you now. Tell us before others are also dead like Rick. Somewhere in this student body there must be those who have the courage to be heroes—and we need these heroes now. Let us not sit back under some fake code which tolerates and encourages the destruction of the lives of our friends. Let us *not* say Rick Thornton died for nothing.

Rick's funeral will take place at 1:00 today at the Faith Baptist Church on Airport Road. At that time I will come on the air and ask

for a moment's silence in the memory of this happy-go-lucky, 17 year old boy—who tragically died because he needed to do his thing—and because there are those who would let him die.

ISRAEL'S COMMONSENSE VERSUS STATE DEPARTMENT WISHFUL THINKING

Mr. MONTOYA. Mr. President, recent developments in the United States concerning the Middle East are causing increasing disquiet. It seems as if our State Department is once again slavishly falling into line with positions advanced by those interests seeking settlement in that area of the world at the expense of the only friend we possess there. Israel is the only democracy in that part of the world. She is also our only reliable ally. Carved out of the desert by refugees from the Nazi holocaust, she has had her sovereignty attacked from the beginning, militarily and diplomatically. In 1948, she was invaded, yet triumphed over all odds. In 1957, she showed her military viability in the face of overwhelming numbers. In 1967, as Arab military forces armed to the teeth with up-to-date Soviet weapons, attacked her, she triumphed. Since that time there has been a stalemate. She seeks face-to-face negotiations with her foes to secure her boundaries.

It is simple to see why Israel stands firm. These people have the longest record of persecution in the world's history. Only the Jewish people have been victims of organized, modern attempts at genocide. Every diplomatic promise ever made them has been broken.

The United Nations has been turned into a sounding board for Soviet-orchestrated Arab propaganda against her. I must admit I find it grotesque that less than 3 million people in a miniscule nation are being made villains in a conflict with 50 million foes backed by one of the world's thermonuclear superstates. It is a little hard to believe that David is the real aggressor against Goliath.

What crime have the Jewish people of Israel been guilty of? Fighting successfully to survive. They are guilty of winning. They stand accused of refusing to die quietly. This time the world will not make them agree to do a Czechoslovakia a la 1938. And I admire them for their stand. They are wise, because such promises have proven to be not worth the paper they are printed on. Who can forget Thant's panicky acquiescence to Nasser's arrogant 1967 demands to withdraw the U.N. forces?

Each time Israel has believed promises from the United Nations, she has been betrayed. Now she understandably refuses to accept further tenuous guarantees. After paying in blood for her present borders, all she seeks are face-to-face negotiations with her opponents. On this basis, she is prepared to discuss any and all issues at hand.

She seeks recognition as a nation with the formal guarantees this brings. She seeks security from nightly terror and slaughter in the name of guerrilla warfare. She asks for her international rights of access, trade, and negotiation. Only this, Yet U Thant, Soviet de facto representative at the U.N., seeks to treat such requests as negotiable. His behavior and that of the organization he represents cast no credit upon either in this entire Middle Eastern imbroglio. Whatever remaining credit they had left in the minds of most Americans has long since been used up by their recent behavior.

The Soviets have rearmed the Arabs to the teeth. Egypt once again has bulging armories. Further, she now has a minimum of 10,000 to 12,000 Soviet troops and technical experts on her soil and in positions of significant frontline authority. Past acts of bad faith were updated last year when the truce was declared at the Suez Canal. The very first night showed who the Egyptians and their Soviet mentors really were, as missile sites and antiaircraft missiles were moved up toward the canal. Can anyone in their right mind blame Mrs. Meir and her compatriots for the stand they have now taken?

That is why I consider the positions advocated by Secretary of State Rogers so unusual, to say the least. His logical processes in this situation are even more convoluted than when he states a case for expanding the war in Indochina. Israel must live with Arab hate and Soviet weapons. Both are far removed from Foggy Bottom.

It is one thing to say we are advancing backward and the Communists are retreating forward in Asia. It is another to blandly propose the pro-Communist themes of U Thant and the Soviets on the Middle East at Israel's expense.

Israel looks askance at our guarantees. How can Mr. Rogers and the President commit American troops to any border force in the Middle East or anywhere else without consulting the Congress? The Israelis are aware of this. That is just one reason why they regard such an oral promise with skepticism.

Israel knows what an enemy on a commanding height means in terms of precious lives. She knows what it means to live with the reality of hordes of Russian-armed and trained enemies only a few miles away from her most vulnerable heartland. It is easy for a Secretary of State to tell her to withdraw. Israel's people will have to physically live with the consequences. Mr. Rogers will not.

Israel has an unassailable reason for wishing retention or neutralization of each piece of territory in question. The Golan Heights are an artillery bastion that, as has been shown in the past, in the hands of an enemy make life practically untenable for settlements in the north of Israel. To give them back to the hands of Syria, a totally irrational state, would be an act of betrayal to Israeli citizens dwelling under the shadow of the guns which would immediately be placed there.

Sharm-el-Sheikh is a bottleneck controlling access to Israel's only port facing Asia and Africa. Egypt has violated international law with impunity in the past, forbidding international access to Israel by military control of that strategic point. Israel gave up her options on Sharm-el-Sheikh once, and paid accordingly. This particular spot was a major cause of the 1967 war, which brought the world to the brink of massive conflict.

Military control of the Gaza Strip by Egypt creates a dagger pointed at the heart of Israel. Why should this little country place such a weapon in the hands of people sworn to wipe her out?

While Arabs controlled part of Jerusalem, Jews were not allowed access to holy shrines. Jewish holy places were defiled. The old city was used as a military base for attacks upon Israel in the 1967 war. Why then, should she return to such a status quo?

I find it perfectly understandable that she refuses to withdraw from her strategic, hard-won positions until she has something more tangible than a mere promise based upon a questionable constitutional position.

Mr. President, what it boils down to is that too many people are willing to treat Israel's interests as negotiable. Face-to-face negotiations between principals is essential to a meaningful agreement in that part of the world.

The Israelis are not fools. Past lessons, old and new, have not lost their meaning to them. It would behoove our diplomatic establishment to take heed of the very elementary lessons that are ours to learn for the asking.

EXECUTIVE IMPOUNDMENT

Mr. CHURCH. Mr. President, Executive impoundment of appropriated funds is another area in which Congress is losing its prerogatives. Just recently, for instance, it was reported that the Nixon administration intends not to spend $8 billion authorized and appropriated by both Houses of Congress for domestic programs. This nullification of congressional intent further tips the present constitutional imbalance in our Government—in matters of peace and war as well as the purse—toward the Presidency.

It is the duty of Congress to redress this imbalance and to stop the flow of authority and responsibility away from Capitol Hill. On this score, I am pleased that the distinguished senior Senator from North Carolina (Mr. ERVIN), chairman of the Senate Subcommittee on Separation of Powers, is holding hearings on this crucial issue. I have long been concerned about the practice of Executive impoundment. In an article entitled "Impoundment of Appropriated Funds: The Decline of Congressional Control Over Executive Discretion," published in the Stanford Law Review, I set out a review of the growth of impoundment and my appraisal of the constitutional questions it raises.

I ask unanimous consent that the article be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

[From the Stanford Law Review, June, 1970]

IMPOUNDMENT OF APPROPRIATED FUNDS: THE DECLINE OF CONGRESSIONAL CONTROL OVER EXECUTIVE DISCRETION

(Comments by Senator FRANK CHURCH) *

The aggrandizement of governmental power, particularly executive power, is a well-known theme in the literature on American politics.[1] Mushrooming executive authority should, of course, surprise no one, given "the

Footnotes at end of article.

three great centralizing experiences of this century—world wars, extended depression, and protracted Cold War." [2] The important question is whether increasing executive authority has impaired the separation of powers prescribed by the Constitution. Is our nation guided, in a spirit of comity, by three strong and separate branches of government? [3] Or, to paraphrase Roscoe Pound, are we witnessing the desuetude of representative government, the rise of "executive hegemony"?[4]

Despite Congress' apparent abdication of its constitutional responsibilities under certain powers, some suggest that Congress has nonetheless managed to preserve the scope and significance of its policy role by using other available tools—open debate, committee investigations, and, especially, continuing control over public spending. For example, in 1959 Senator Hubert Humphrey stressed: "[W]ith its power of the purse, and through the right to investigate, to criticize and to advocate, the Congress does exert a significant influence on the quality and direction of United States foreign policy, and it usually does so without violating the integrity of the Executive Branch." [5] The purpose of this Comment is to suggest that it is the integrity of Congress rather than the executive branch that stands in jeopardy. Most of the authority over foreign policy that the Constitution vests in Congress has already passed to the President.[6] Now, through a process of subtle attrition, Congress also appears to be surrendering its traditional wellspring of strength, the power of the purse. The Constitution declares that the appropriations power is the exclusive prerogative of Congress: "No Money shall be drawn from the Treasury, but in Consequence of Appropriations made by Law. . . . ." [7] However, through the growth of "central clearance" [8] the appropriations power has become as much the executive domain as the congressional. One author suggests that "Congress, according to the Constitution, must appropriate—but what is appropriated, speaking very generally, is what is presented to them by the Administration." [9] The increased complexity of governmental transactions and the speed and flexibility with which they must be handled inevitably have led to increased executive responsibility over public spending. The executive, however, has supplemented this inevitable shift of power through the use of a particularly noxious device—executive impoundment of appropriated funds. The growing practice of impoundment, whereby the executive branch fails to expend funds according to the intent of Congress, looms as yet another force eroding the foundation of representative government. I shall first briefly describe the practice, point out the dangers and constitutional infirmity of impoundment, and finally suggest some steps Congress can take to retrieve its quickly vanishing initiative in this area.

I. THE PRACTICE OF IMPOUNDMENT

A. The growth of impoundment

Though an occasional earlier example of executive impoundment can be found in American history, the Anti-Deficiency Acts of 1905–06 [10] provided the first lawful basis for the practice of reserving appropriations, "the *sine qua non* of the impounding process." [11] These Acts state that appropriations may ". . . be so apportioned by monthly or other allotments as to prevent expenditures in one portion of the year which may necessitate deficiency or additional appropriations to complete the service of the fiscal year for which said appropriations are made." [12] The Anti-Deficiency Acts were later used "to effect savings when the required purpose was accomplished for a sum less than the amount of the appropriation." [13]

Executive impoundment lost its character as an economy measure and became a full-fledged policy tool early in the administration of Franklin Delano Roosevelt. The Bureau of the Budget initiated the practice of impounding funds for specific purposes.[14] The frequency of impounding increased sharply as the Roosevelt administration coped with the emergencies of the Depression and World War II. Congress permitted Roosevelt to pursue those activities he deemed necessary to ease the economic crisis of the thirties and to ignore appropriations for nonessential activities.[15] Similarly, during the forties Congress usually supported the President in his policy of deferring projects that might absorb funds required for the war effort.[16] Until victory over our enemies was assured, the constitutional separation of Congress and the President was temporarily shelved, allowing the executive branch to determine if legislation passed by Congress was in the best interests of winning the war. Throughout this period of crisis, the executive branch based its rationale for impounding funds chiefly upon the war powers of the President. One case study focusing on impoundment during these war years states: "Recognizing that the Bureau's right to stop specific projects during peacetime might be questionable, [a Bureau of the Budget official] contended that the President's war power permitted 'the President to prosecute the war in all its ramifications by all the machinery available to him.' " [17]

Several members of Congress, however, were clearly unhappy about their wartime "expendability" and concerned that the claimed emergency powers might become normal powers. A legislative amendment introduced by Senator McKellar in 1943 was "the first across-the-board curtailment of the Budget's impounding procedure to be accepted by either house of Congress." [18] The language of the McKellar rider sought to eliminate impounding completely, "except by direction of the Congress." After passing the Senate by a voice vote, the McKellar amendment was resoundingly defeated in the House; however, the floor debate over the issue made it evident that, even given the wartime emergency, many influential members of Congress believe the executive branch had clearly overstepped its bounds.

The amendment seems to have been defeated largely because of the disinclination of members to interfere with the progress of the war. Inside the Congress, House Appropriations Committee Chairman Clarence Cannon spoke against the amendment, stressing that it sought to eliminate impoundment "at the time . . . we need the exercise of that power more than any other in the history of our country." [19] Outside the Congress, a constitutional expert underlined part of the problem:

"[I]n its control of the purse-strings Congress possesses its most effective check on Presidential power. At best, the promise of this rule is seriously impaired by war, inasmuch as legislative prying into Presidential budgets at such a time always involves the danger of revealing military secrets." [20]

Congressional abdication of its "most effective check on Presidential power" was thus directly linked to the war. Therefore, the true test of the importance of impoundment would seem to lie in its use since the Second World War.

The record of postwar impoundment discloses that, far from abating, the practice has grown markedly.[21] Examples abound where the executive branch has rejected or deferred projects approved and mandated by Congress.[22] Most disturbing of all, the impounding procedure has expanded from its wartime intrusion into "national defense" into the area of civilian spending. No longer do we find only military programs being reduced and sometimes completely eliminated because the executive branch prefers a different program, but—far more alarming—we are increasingly confronted by news items such as the following: "[U]nder Congressional pressure the Budget Bureau released a backlog of 56 [civilian] projects." [23] Also seen with startling regularity are references concerning whether funds for housing, pollution control, medical research, and other important programs ought to remain impounded or be released for use.[24] One must wonder how many other projects approved and funded by the representatives of the American people are similarly trapped in the executive snare. The fundamental question, of course, is whether these funds should have allowed to be impounded in the first place. The words of one Senator, speaking on the impoundment issue during World War II, are even more poignant today: "Then how does the Congress express itself or announce a Congressional policy? After all, we represent the people." [25]

Impoundment has evolved significantly from the Anti-Deficiency Acts' original purpose of effecting savings. Now the administration announces that it *"may* be ready to release the $586 million in extra funds voted last year by Congress for the fight against water pollution." [26] The importance of examining the constitutional and political implications of this trend should be obvious. Before turning to these implications, however, it may be worth while to outline briefly the major types of impounding procedures.

B. Impoundment: a typology

Various methods of holding up funds have been used over the years. Some of these procedures have been useful; others hold grave implications for the very *raison d'être* of Congress. The following typology of these procedures is not meant to be exhaustive; present data on impoundment are far too fragmentary for a definitive classification. The tentative findings presented here are designed simply to outline the major methods of impoundment and to encourage further research in this area.

1. Reserving Funds To Prevent Deficiencies or Effect Savings

This method of holding up funds is by far the most common. When used to economize rather than to cripple programs, its usefulness is apparent. For example,

"if an island, for whose inhabitants Congress appropriates X millions of dollars, suddenly were to disappear and all its residents perished. Congress would not expect the President, with a view to escaping its wrath over impounding to direct that the unexpended portion of the funds thus allocated follow the decedents to their watery grave." [27]

Or, to use Professor Williams' classic example, when only $500,000 was needed by the Department of Agriculture to control the Mediterranean fruit fly, the remainder of the original $1 million appropriation was rightly placed in a federal reserve.[28]

In short, no one is opposed to returning moneys to the Treasury whenever a program costs less than originally expected, just as no one should object to apportioning funds to prevent deficiencies. These practices, aimed at fiscal responsibility and not policy-making, are better referred to as apportioning (in the case of deficiency prevention) and reserving (when funds are placed in the Treasury as a result of program economizing), rather than impounding. The distinction between reserving and impounding is, of course, a matter of degree. When the purpose of holding back funds is not to effect marginal savings but to alter the intention of a program or policy, then "reserving" has become "impounding." [29] The transition is one from fiscal responsibility and economizing—rightly pursued by all components of govern-

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ment—to constitutional irresponsibility with a concomitant decline of checks and balances and separate institutions.

2. Impoundment Under Authority of Permissive Appropriation

On some types of legislation—for example, during a national emergency such as war or depression—Congress may wish to set only ceilings on expenditure, allowing the President discretionary powers over these programs. As one author correctly points out: "There has been little dispute as to the power of the President to make the decision as to whether or not funds shall be spent, if it is clear that Congress intended the appropriation to be permissive." [30] Once Congress has made its intentions clear on a particular appropriations measure, however, the flexing of presidential muscle serves only to tear the fabric of the Constitution.

One of the problems in this area stems from semantic confusion. Ambiguities in statutory wording sometimes obscure the difference between language allowing discretionary funding and language stressing the mandatory nature of certain congressional appropriations. An Assistant Attorney General remarked: "[A]n appropriation is not in itself ordinarily interpreted as a direction to spend. To determine whether or not there is a duty to spend one must examine the substantive legislation." [31] Hence, whether Congress used words like "direct," "mandate," "require," "order," "shall," in one instance, or "authorize," "permit," "may," in another instance, can determine whether an entire project is carried out or quietly abandoned by the executive branch.

There are numerous illustrations of this semantic difficulty. For example, an author suggests that one sentence in the Hospital Survey and Construction Act [32] is mandatory since the verb "shall" is used, whereas a second sentence is "purely permissive and wholly discretionary" because "may" is the verb.[33] The author concludes that "the Surgeon General is at liberty to disregard the second sentence" but must "follow the congressional command imposed in the first sentence." [34] The well-publicized controversy over the RS–70 weapon system (the B–70 bomber) is another instructive example. President Kennedy persuaded Representative Vinson, Chairman of the House Armed Services Committee, to replace the word "directed" with the word "authorized" in the legislation appropriating funds for the program.[35] Though Vinson later explained that his Committee deleted the word only upon assurance that the Defense Department would take some action on this program,[36] in the long run "[t]he project was restudied but no extra funds for the B–70 or RS–70 were ever spent." [37] One scholar of defense budgets remarks: "The fact that such a strenuous, and successful, effort was made to delete the term 'directed' carries an implied recognition that the Executive would not be free to ignore such a mandate. . . ." [38] The moral of these examples should be clear: If Congress intends to mandate the executive branch, this should be unambiguously stated in the legislation so the President understands clearly when he has been "directed" and when he has been given discretionary powers.

3. Impoundment Under Authority of a Congressional Mandate

Directives from the Congress requiring the President to freeze funds for projects under certain conditions have become increasingly common. Under Title VI of the 1964 Civil Rights Act, for example, Congress mandates the executive branch to impound funds rather than spend them in areas practicing unlawful discrimination.[39] This method of executive impoundment can be of great value in eliminating unlawful activities in this nation and is in harmony with the separation doctrine. Probing the effects of this kind of congressional mandate, one authority raises the following questions: "Does it merely shore up an already existing power? Does it create new power? Does it mean that in areas other than those covered by the Civil Rights Act—for example, national defense—the President has now made the tacit admission and will be held to the position that he cannot impound funds? [40] As this Comment suggests, the answer can be direct: It has always been the power of the Congress to control the purse strings, and this type of congressionally mandated impounding is merely an example of such control.

4. Impoundment Despite a Mandatory Appropriation

In the three types of impoundment outlined above, the President is permitted by Congress to withhold the expenditure of duly appropriated funds under certain conditions. If we are to preserve our democratic institutions, however, the President cannot be allowed the further privilege of ignoring a *mandated* appropriation. It is this form of impoundment that represents a grave threat to the integrity of Congress.

In a recent review of the impoundment question, one political scientist states his belief that

"a *constitutional* issue emerges only when Congress finds a legislative program cancelled or abbreviated because the President considers the purpose unwise, wasteful, or inexpedient. He then no longer operates on the basis of legislative authority. On the contrary, he matches his will against that of Congress." [41]

This type of impoundment occurs with increasing frequency. The executive often refuses to spend funds that Congress explicitly orders spent. Today we find, for instance, that "while Congress authorized and presumably intended to spend $8.9 billion on school aid this year, the Nixon budget contained only $3.2 billion." [42] We learn from an Assistant Secretary of Health, Education, and Welfare that medical research and other projects over which the executive branch has much control may be cut back or halted by discretion of the President, despite specific congressional orders directing that the projects be carried out.[43] Most recently, it is reported that President Nixon vetoed the vital and popular [44] Hospital Construction Bill because of a "[p]articularly obnoxious . . . provision in the bill that would have prevented [the President] from impounding any of the $1.2 billion in hospital construction grants authorized for the next three years." [45]

The outright elimination of entire programs ordered by Congress is a blatant example of this dangerous trend.[46] A more subtle accretion of executive powers is found in the practice of "reserving" funds (to use the Budget euphemism) with a promise to release them at a later, "more fiscally responsible" time. Though the executive branch is quick to disclose instances when there funds are actually later released, not a word is uttered about those projects that are quietly entombed—or released only after great pressure is brought to bear on specific agencies or Budget officials.[47] As suggested earlier, Congress is reduced to vigorous lobbying to compel expenditures, despite the fact that funds have already been mandated for spending and the congressional mandate signed into law by the Chief Executive, who, according to the Constitution, is supposed to see that "the laws are faithfully executed." [48]

The tentative typology presented here may lead to a further refinement in the study of impoundment procedures as additional data are uncovered. It should be remembered that of the four methods outlined above, only the last—impoundment despite a mandatory appropriation—is impugned here as illegitimate and a threat to representative government.

II. THE CONSTITUTIONAL AND POLITICAL IMPLICATIONS OF IMPOUNDMENT

Those who have carefully examined court decisions bearing on the impoundment issue have concluded that no cases involve the problem directly, and those cases that are of tangential significance fail to settle the issue.[49] One constitutional scholar concludes: "[T]he relationships between President and Congress are essentially political and are to be solved by the operation of the political process, not by resort to legalistic arguments." [50] As this issue is not resolved by past court decisions, and as the chances of a future test of this case before the Supreme Court are remote,[51] it is evident that we must rely for authority on (1) an examination of the wording of the Constitution itself, (2) the American tradition of separate institutions and checks and balances in government, and (3) the political arguments for and against executive discretion in this area.

A. The Constitution

Recognizing that the Constitution offers no specific guidelines concerning the "reserving" of appropriated funds, it is nonetheless plain that the authors of that document did not intend to give the Chief Executive an absolute veto over public spending. No item veto is specifically granted to the President by the Constitution, and the provision for overriding a veto upon a two-thirds vote lends credence to the proposition that the President has no constitutional power to veto legislation absolutely. If the President or his subordinates are permitted at will to refuse to spend funds after an appropriations statute has been signed into law, then in essence these officials have "an absolute veto exercised without danger of being overridden by a two-thirds vote of Congress." [52]

The Constitution in certain specific cases seems to grant to Congress actual affirmative power rather than the right merely to limit spending. In the military sphere, for example, the constitutional prerogative of Congress to "raise and support armies" and to "provide and maintain a Navy" carries with it the implication that Congress may ensure that the funds for these military activities are expended in the manner determined by Congress. Similarly, in other areas of spending, the congressional power of the purse is not simply negative power to establish a ceiling, but rather a full and positive authority to compel expenditure of the funds.[53] An Assistant Attorney General states: "With respect to the suggestion that the President has a constitutional power to decline to spend appropriated funds, we must conclude that existence of such a broad power is supported by neither reason nor precedent." [54] Every refusal by the President to execute a program or project, once made law, is nothing less than the exercise of a patently unconstitutional absolute veto.

B. Separation of powers

A vital ingredient of democracy in our country is the opportunity afforded diverse political interests—civic groups, government agencies, private citizens, and others—to appeal in a meaningful way to the Congress, the courts, and the executive branch to advance the policies they favor. Once it is widely recognized that a project may be entombed by the executive branch—even when a convincing case has been made before the Congress and moneys have been appropriated—the American people will sense the futility of appealing to their elected representatives. They will conclude that the executive branch is the only significant arena for policymaking. This undermining of confidence in the

Footnotes at end of article.

ability of Congress to act with authority on appropriations will eventually destroy public reliance on that representative body and thereby increase the power and authority of the executive to the detriment of our tradition of separate institutions acting as checks and balances on one another.

C. The political argument

The argument most readily embraced by proponents of impoundment may be stated generally as follows: The question of freezing funds is fundamentally of a political nature, and, in an era demanding administrative speed and efficiency, presidential discretion over funds is imperative. Hence, an author tells us:

"The struggle between the President and Congress over impounded funds is essentially political. The decisive appeal is not to legal principles and Court decisions but to constituencies and agency support. . . .

. . . Since the President lacks an item veto, he must impound the unwanted funds to preserve his budgetary objectives and maintain control over his own executive officials." [55]

Another constitutional authority suggests: "The answer is not to be deduced from the Constitution itself but is to be decided on the grounds of policy. This, in turn, means that the President can and may withhold expenditure of funds to the extent that the political milieu in which he operates permits him to do so." [56] We are told that impoundment is "an essential instrument for protecting budgetary policy and avoiding unnecessary and costly programs" and that "Presidents exercise this power with considerable restraint and circumspection." [57] But who is to determine what programs are unnecessary, or when the President has used circumspection in freezing funds? Surely the President alone, or, worse still, some lower-echelon official within one of the executive agencies should not.

Proponents of this point of view seem to confuse the nature of the budgetary process with the impounding issue. The distinction is that legislative determination of appropriations is a process of bargaining and persuasion; once the appropriations are passed, however, it becomes the constitutional obligation of Congress "to compel the funds to be expended." [58] Politics and bargaining, yes, when it comes to deciding the merits among competing requests for scarce resources; politics and bargaining, no, when the laws of the land are to be carried out. Given the President's veto and his obvious influence over the whole budgetary process, there is no need for him to obstruct the intent of the Constitution or subvert the tradition of balanced government by challenging Congress' most important instrument for monitoring the executive branch.[59]

III. CONCLUSION

Naturally, an evaluation of the impoundment question will reflect to some extent the value structure of the investigator. However, the empirical evidence analyzed here indicates that Congress should assume its larger responsibility. The powers of the President are now vast and growing; congressional power over the purse is one of Congress' few real means for controlling the federal bureaucracy. Still, the executive branch continues to impound funds, increasingly invading the domestic realm to deprive Congress of its constitutionally imposed duty to control public policy. The President has the higher responsibility, in the long run, of maintaining the Congress as the strongest legislature in the world. He will fail in this responsibility if he treats with disdain the appropriations bills passed by Congress.

To prevent such an occurrence, the Congress has recourse, in the last extremity, to the process of impeachment, though this reprisal is clearly too harsh to be practical. More realistically, Congress can deny funds requested by the President for programs he may strongly favor, and, in this manner, bring pressure on the Chief Executive to implement congressional intent in other areas. This political leverage is frequently utilized by Congress, though not often in the public view. It amounts to individuals or groups of legislators reaching private understandings with the executive, often without alluding to a specific bargain. If Congress is to maintain its status as a separate and equal branch of our government in the face of increasing presidential usurpation in the appropriations area, this technique may have to be studied, refined, and employed more often and more effectively in the future. As judicial review is unlikely, and impeachment is unworkable, it is suggested that congressional and scholarly thought be directed toward finding more effective ways to implement withholding procedures, and toward discovering and implementing other feasible remedies.

If any remedy is to assure that programs, once funded, are carried out as mandated, Congress must strengthen and regularize its review of executive compliance with congressional appropriations. At present, once an appropriation is passed, Congress usually loses sight of it. There is no regularized process for following an appropriation to see that it is spent in the legislatively prescribed manner. Moreover, the Budget Bureau, an executive agency, is unwilling to release to the Congress information on "reserved" funds.[60] It is therefore apparent that for any remedy to be effective Congress must provide some means for obtaining the data necessary to determine whether to invoke that remedy. Legislation might be enacted requiring the Budget Bureau to inform Congress whenever funds are reserved. The duties of the General Accounting Office, an arm of the legislative branch, might be augmented to include supervision of expenditures in order to identify when impoundment has occurred. The appropriations committees of Congress—indeed, all the committees—might be encouraged, or required, to follow appropriations through the executive branch to ensure that they have been allocated and spent as directed. Again, this is an area in which further study is necessary, and the suggestions put forth here should in no way be taken as all-encompassing.

The most desirable general resolution of the problem would be for the executive branch to discipline itself, recognizing that today's dominant presidential initiative in the legislative process must be matched by meaningful congressional control. For a President, or the agents who act in his name, to impound funds at their own discretion places both initiative and control of legislative policymaking in the hands of the executive branch, and forecasts a decline of constitutional government in this country. Absent such unilateral action by the executive, the problem of impoundment deserves far more congressional attention than it has received in the recent past.

FOOTNOTES

* A.B. 1947, J.D. 1950, Stanford University. United States Senator from Idaho. The author wishes to thank Loch K. Johnson, American Political Science Association Congressional Fellow, for his assistance in the preparation of this Comment.

[1] *See, e.g.*, E. CORWIN, THE PRESIDENT: OFFICE AND POWERS, 1787–1957 (1957); V. KEY, JR., POLITICS, PARTIES, AND PRESSURE GROUPS (5th ed. 1964); L. KOENIG, THE CHIEF EXECUTIVE (1964); R. NEUSTADT, PRESIDENTIAL POWER (1960); C. ROSSITER, THE AMERICAN PRESIDENCY (1956); A. SCHLESINGER, JR. & A. DE GRAZIA, CONGRESS AND THE PRESIDENCY: THEIR ROLE IN MODERN TIMES (1967).

[2] K. WALTZ, FOREIGN POLICY AND DEMOCRATIC POLITICS 103 (1967).

[3] The phrase "separate institutions sharing powers" has been offered by Neustadt as a clarification of the proper constitutional relationship of our political institutions. R. NEUSTADT, *supra* note 1, at 33. Essential to both this expression and the more common "separation of powers" is the notion that no branch of government may be allowed to usurp those powers meant to be shared by another branch of government. In the appropriations process, for example, one finds an overlap of functions, powers, and responsibilities to be shared by Congress and the President. The difficulty, of course, lies in ascertaining when a particular branch no longer plays a viable role in the partnership.

[4] *Quoted in* Miller, *Presidential Power to Impound Appropriated Funds: An Exercise in Constitutional Decision-Making*, 43 N.C.L. REV. 502, 523 (1965).

[5] Humphrey, *The Senate in Foreign Policy*, 37 FOREIGN AFFAIRS 525 (1959). Writing more recently on Senate powers, New York Senator Jacob K. Javits calls the power of the purse "the one weapon we have." Javits, *The Congressional Presence in Foreign Relations*, 48 FOREIGN AFFAIRS 221, 233 (1970).

[6] *See, e.g.*, Church, *Of Presidents and Caesars: The Decline of Constitutional Government in the Conduct of American Foreign Policy*, 6 IDAHO L. REV. 1, 13 (1969).

[7] U.S. CONST. art 1, § 9.

[8] *See* Neustadt, *Presidency and Legislation: The Growth of Central Clearance*, 48 AM. POL. SCI. REV. 641 (1954).

[9] Miller, *supra* note 4, at 506.

[10] Act of Mar. 3, 1905, ch. 1484, § 4, 33 Stat. 1257; Act of Feb. 27, 1906, ch. 510, § 3, 34 Stat. 48–49.

[11] Williams, *The Impounding of Funds by the Bureau of the Budget*, INTER-UNIVERSITY CASE PROGRAM No. 28, at 6 (1955).

[12] Act of Feb. 27, 1906, ch. 510, § 3, 34 Stat. 48–49. For the 1905 legislation see Act of Mar. 3, 1905, ch. 1484, § 4, 33 Stat. 1257.

[13] Davis, *Congressional Power to Require Defense Expenditures*, 33 FORDHAM L. REV. 39, 54 (1964).

[14] M. Ramsey, Impoundment by the Executive Department of Funds Which Congress Has Authorized It to Spend or Obligate, May 10, 1968, at 4 (Library of Congress Legislative Reference Service). An example of impoundment of this nature before 1933 is President Harding's freezing of funds for rivers and harbors in 1923, ignoring a supplementary appropriation by Congress. Kranz, *A 20th Century Emancipation Proclamation: Presidential Power Permits Withholding of Federal Funds from Segregated Institutions*, 11 AM. U.L. REV. 48, 65 n.122 (1962).

[15] *See, e.g.*, the Economy Acts of 1932 and 1933 (Act of June 30, 1932, ch. 314, §§ 101, 105, 110, 403, 47 Stat. 399, 401, 403, 413; Acts of Mar. 3, 1933, ch. 212, §§ 403, 408, 47 Stat. 1518, 1519) and the War Appropriation Act of 1933–34 (Act of Mar. 4, 1933, ch. 281, § 4, 47 Stat. 1602).

[16] *See* Corwin, *The War and the Constitution: President and Congress*, 37 AM. POL. SCI. REV. 18–25 (1943). The instances in which the executive branch was unsuccessful in holding up funds it felt not in the national interest have been few. *See, e.g.*, Williams, *supra* note 11, at 12–20.

[17] Williams, *supra* note 11, at 15.

[18] *Id.* at 27.

[19] *Quoted in id.*

[20] Corwin, *supra* note 16, at 24. It should be noted that recourse to executive privilege over so-called "secret" information has often been misused. Senator Javits is correct in asserting that information has frequently remained classified "more for the sake of bureaucratic convenience than for legitimate national-security reasons." Javits, *supra* note 5, at 224.

[21] No truly systematic data can be found on either postwar or prewar impoundments; one must rely on fragmentary newspaper reports and citations in the academic litera-

ture. The only attempt known to the writer to gather detailed information on this subject was made by Senator Ervin's Subcommittee on the Separation of Powers in 1968. In response to the Subcommittee's request, Budget Director Robert P. Mayo forwarded a list of "Examples of Reserves Established Under Specified Circumstances, 1945–1969." Memorandum from Robert P. Mayo to Senator Sam J. Ervin, May 1969. The document, which took "months" to prepare according to a Budget official contacted by my office, presents a relatively sparse listing of "reserving" incidents, and fails even to mention several examples of impoundment cited in the scholarly literature. In fact, the Budget Bureau seems to have been very careful to select only those cases that least call into question the practice of impoundment. For each example selected, the Bureau stresses that the "reserved" funds were "released later in the fiscal year." Even the controversial RS–70 case comes out looking good, with all the moneys finally being released. This version of that case is, however, inconsistent with reports of it found elsewhere. *See* T. SORENSEN, KENNEDY 348 n.2 (1965).

[22] Anyone casually acquainted with the history of impoundments must wonder how the Budget Bureau could have forgotten some of the following examples, to take only more blatant impoundments of military programs. In 1950 the aircraft carrier Forrestal was canceled by the executive after funds had been appropriated. *See* H.R. REP. No. 1406, 87th Cong., 2d Sess. 5 (1962). A year earlier President Truman had impounded the $615 million that Congress appropriated for an Air Force group larger than he preferred. *See* M. Ramsey, *supra* note 14, at 22. In 1956 the Department of Defense impounded appropriations by Congress "earmarked for the construction of twenty superfort bombers." *See* E. CORWIN, *supra* note 1, at 137. In 1959 Senate Armed Services Committee hearings examined the failure to spend funds appropriated for such things as Polaris submarine construction and support of the Marine Corps at a given level. The hearings revealed: "Last year the Congress appropriated $1,300,000,000 extra . . . and 58 per cent was not spent at all. . . ." *Quoted in* N. Small, Constitutional Power of President to Order the Impounding of Appropriated Funds, Aug. 25, 1959, at 6 (Library of Congress Legislative Reference Service): *See* M. Ramsey, *supra* note 14, at 26.

[23] CONGRESSIONAL QUARTERLY SERVICES, 2 CONGRESS AND THE NATION 508 (1969).

[24] *See*, e.g., Washington Post, Mar. 14, 1970, at A4, cols. 1–4; *id.*, Jan. 17, 1970, at A2, cols. 1–2.

[25] Remarks of Senator Holman, *quoted in* Williams, *supra note* 11, at 24.

[26] Washington Post, Jan. 17, 1970, at A2, cols. 1–2 (emphasis added).

[27] N. Small, *supra* note 22, at 5.

[28] Williams, *supra* note 11, at 6.

[29] Even the Bureau of the Budget in 1952 stressed that "[r]eserves must not be used to nullify the intent of Congress with respect to specific projects or level of programs." BUREAU OF THE BUDGET, EXAMINERS HANDBOOK (1952). According to George Mahon, Chairman of the House Appropriations Committee: "[E]conomy is one thing, and the abandonment of a policy or program of the Congress another thing." 95 CONG. REC. 14,922 (1949).

[30] M. Ramsey, *supra* note 14, at 22. One misconception concerning whether appropriations represent only a "ceiling" seems to originate in the 1951 General Appropriations Act, in which the executive branch is directed "to expend as little as possible out of the funds appropriated." 31 U.S.C. 665(c)(2) (1964); *see* H.R. REP. No. 1797, 81st Cong., 2d Sess., (1950). One writer refers to this Act as a rationale for executive impoundment. *See* Kranz, *supra* note 14, at 65. However, a more accurate statement of congressional intent in the 1951 Act is the following: "There appears to be no statutory authority for the impounding of appropriated funds, except for purposes of economy and efficiency *in executing the purposes for which the appropriation is made.*" Davis, *supra* note 13, at 55 (emphasis in original). President Kennedy, in a similar vein, declared in 1963: "I don't have the power to cut off the aid in a general way, as was proposed by the Civil Rights Commission, and I think it would probably be unwise to give the President of the United States that kind of power. . . ." N.Y. Times, April 20, 1963, at 11, col. 5.

[31] Memorandum from Assistant Attorney General William H. Rehnquist to Edward L. Morgan, Deputy Counsel to the President, Dec. 19, 1969, at 1.

[32] Hospital Survey and Construction Act (Hill-Burton Act), 42 U.S.C. 291 (1964).

[33] Kranz, *supra* note 14, at 60. Underscoring the problem of semantic confusion in committee reports, Arthur MacMahon writes: "It is the difficult task of administrators to construe the reports and to identify the commands and interdictions which the committee intends to have an intrinsic force, not merely advisory value." MacMahon, *Congressional Oversight of Administration: The Power of the Purse*, 58 POL. SCI. Q. 161, 380 (1943).

[34] Kranz, *supra* note 14, at 60.

[35] Davis, *supra* note 13, at 43.

[36] 108 CONG. REC. 4693 (1962).

[37] T. SORENSEN, *supra* note 21, at 348 n.2.

[38] Davis, *supra* note 13, at 44 n. 27.

[39] 42 U.S.C. §§ 2000d to 2000d–4 (1964). *See also* the Library Services Act, 70 Stat. 293 (1956), *as amended*, 20 U.S.C. §§ 351–58 (1964); Vocational Rehabilitation Act, 41 Stat. 735 (1920), *as amended*, 29 U.S.C. § 3 (1964).

[40] Miller, *supra* note 4, at 544.

[41] Fisher, *Funds Impounded by the President: The Constitutional Issue*, 38 GEO WASH. L. REV. 124, 125–126 (1969) (emphasis in original).

[42] Washington Post, Jan. 24, 1970, at A2, cols. 1–8.

[43] Washington Post, Jan. 17, 1970, at A2, cols. 4–6.

[44] The bill passed both the House and Senate without a dissenting vote. Wall Street Journal, June 23, 1970, at 5, cols. 2–4.

[45] *Id.*

[46] *See* note 22 *supra*.

[47] For example, the Bureau of the Budget did not release $3 million authorized for the molten-salt breeder reactor at Oak Ridge; the breeder had shown promise of being "the cleanest and most efficient fuel source for electric power." TIME, Feb. 16, 1970, at 45. For a recent example of one Senator's successful effort to exhume appropriated moneys see Washington Post, Jan. 17, 1970, at A2, cols. 1–2.

[48] Goostree, *The Power of the President to Impound Appropriated Funds: With Special Reference to Grants-in-Aid to Segregated Activities*, 11 AM. U.L. REV. 32, 39 (1962): "[T]he high Constitutional duty to see that the laws are faithfully executed does not confer upon the President the discretion to determine what law shall be executed and how much."

[49] One investigator states: "A number of decisions by the Supreme Court are being invoked in an effort to demonstrate that Presidents lack constitutional authority to impound funds. Taken from context, various phrases of the Court appear to have bearing on the issue, but on closer inspection they have little, if any, relevance. Furthermore, efforts to *justify* impoundments on the basis of other court decisions are also not persuasive." Fisher, *supra* note 41, at 136, (original emphasis).

A long line of cases might be cited against impoundment. Kent v. Dulles, 357 U.S. 116 (1958); Cole v. Young, 351 U.S. 536 (1956); Peters v. Hobby, 349 U.S. 331 (1955); Youngstown Sheet & Tube Co. v. Sawyer, 343 U.S. 579 (1952); United States v. Louisville, 169 U.S. 249 (1898); United States v. Price, 116 U.S. 43 (1885); The Floyd Acceptances, 74 U.S. (7 Wall.) 666 (1868); Kendall v. United States *ex rel.* Stokes, 37 U.S. (12 Pet.) 524 (1838). An equally long line of cases can be cited as justification for impoundment. United States v. Pewee Coal Co., 341 U.S. 114 (1951); United States v. Lovett, 328 U.S. 303 (1946); United States v. Midwest Oil Co., 236 U.S. 459 (1915); *In re* Neagle, 135 U.S. 1 (1890); Simkins v. Moses H. Cone Memorial Hosp., 323 F.2d 959 (4th Cir. 1963), *cert. denied*, 376 U.S. 938 (1964); McKay v. Central Elec. Power Cooperative, 223 F.2d 623 (D.C. Cir. 1955). *See generally* Fisher, *supra* note 41; Goostree, *supra* note 48; Miller, *supra* note 4; Ramsey, *supra* note 14; and Small, *supra* note 22.

[50] Miller, *supra* note 4, at 544.

[51] For understandable reasons, the Supreme Court has shied away from entering the political arena where the persistent power struggle between Congress and the President is waged. Even in cases where legitimate constitutional questions may be posed, the hurdles obstructing a judicial determination are formidable indeed. *See* Goostree, *supra* note 48, at 33.

[52] S. HUNTINGTON, THE SOLDIER AND THE STATE 427 (1957).

[53] W. MORROW, CONGRESSIONAL COMMITTEES 161 (1969).

[54] Memorandum from Assistant Attorney General William H. Rehnquist to Edward L. Morgan, Deputy Counsel to the President, Dec. 1, 1969, at 8.

[55] Fisher, *supra* note 41, at 136.

[56] Miller, *supra* note 4, at 533.

[57] *Id.* at 137.

[58] S. HUNTINGTON, *supra* note 52, at 15.

[59] Professor Reagan writes: "[I]f the legislature doesn't legislate vigorously, why should it bother to meet at all? So runs a commonly accepted standard for evaluating Congress' performance. . . . A more sensible criterion for deciding how effectively Congress has acted is this: how well has Congress monitored the bureaucracy? How active has it been in criticizing, prodding and pushing the departments and agencies? This function, I maintain, is *the* essential task of Congress today. If it is performed well, then Congress has earned its keep, no matter what its legislative output in a given session." M. Reagan, Monitoring the Bureaucracy: Congress' Most Important Task, December, 1969, at 1–2 (unpublished manuscript) (emphasis in original).

[60] *See* notes 21–22 *supra*.

THE JARRING MISSION—I

Mr. HATFIELD. Mr. President, a great deal of publicity has been given lately to recent events regarding U.N. mediated negotiations in the Middle East. Little attention, however, has been focused on the history of these negotiations and the substance of the progress made to date. On January 4, 1970, the United Nations issued a report by the Secretary General, U Thant, to the Security Council. The report summarized and detailed the activities of the special representative, Gunar Jarring, to the Middle East and contained copies of the correspondence between Ambassador Jarring and the representatives of Israel, Jordan, and the United Arab Republic.

Mr. President, I think that this document would be of particular value to those concerned with this vital issue. I ask unanimous consent that the introduction, the first two sections, and annex I be printed in the RECORD.

There being no objection, the portions

of the report of the Secretary General of the United Nations were ordered to be printed in the RECORD, as follows:

REPORT BY THE SECRETARY-GENERAL ON THE ACTIVITIES OF THE SPECIAL REPRESENTATIVE TO THE MIDDLE EAST

INTRODUCTION

1. On 22 November 1967, the Security Council adopted resolution 242 (1967), which reads as follows:

"The Security Council,

"Expressing its continuing concern with the grave situation in the Middle East.

"Emphasizing the inadmissibility of the acquisition of territory by war and the need to work for a just and lasting peace in which every State in the area can live in security,

"Emphasizing further that all Member States in their acceptance of the Charter of the United Nations have undertaken a commitment to act in accordance with Article 2 of the Charter,

"1. *Affirms* that the fulfillment of Charter principles requires the establishment of a just and lasting peace in the Middle East which should include the application of both the following principles:

"(i) Withdrawal of Israel armed forces from territories occupied in the recent conflict;

"(ii) Termination of all claims or states of belligerency and respect for and acknowledgement of the sovereignty, territorial integrity and political independence of every State in the area and their right to live in peace within secure and recognized boundaries free from threats or acts of force;

"2. *Affirms further* the necessity

"(a) For guaranteeing freedom of navigation through international waterways in the area;

"(b) For achieving a just settlement of the refugee problem;

"(c) For guaranteeing the territorial inviolability and political independence of every State in the area, through measures including the establishment of demilitarized zones;

"3. *Requests* the Secretary-General to designate a Special Representative to proceed to the Middle East to establish and maintain contacts with the States concerned in order to promote agreement and assist efforts to achieve a peaceful and accepted settlement in accordance with the provisions and principles in this resolution;

"4. *Requests* the Secretary-General to report to the Security Council on the progress of the efforts of the Special Representative as soon as possible."

2. On 23 November 1967 I reported to the Council (S/8259) that I had invited Ambassador Gunnar V. Jarring of Sweden to accept the designation as the Special Representative mentioned in paragraph 3 of the Council's above-mentioned resolution. Ambassador Jarring accepted this designation and arrived at United Nations Headquarters on 26 November, where he entered into consultation with the representatives of Israel, Jordan, Lebanon and the United Arab Republic (Syria, the other State concerned, did not at that stage or later accept the Security Council resolution). After those consultations with the parties, Ambassador Jarring established the headquarters of the United Nations Middle East Mission in Cyprus.

3. In reports dated 22 December 1967, 17 January 1968, 29 March 1968, 29 July 1968 and 3 December 1968 (S/8309 and Add. 1 to 4, respectively), I reported to the Security Council on the progress of the efforts of Ambassador Jarring. On 7 August 1970, I was able to inform the Security Council (S/9902) that Israel, Jordan and the United Arab Republic had agreed to take part in discussions under Ambassador Jarring's auspices for the purpose of reaching agreement on a just and lasting peace between them. Unfortunately and for well known reasons those discussions were interrupted immediately after they began. The Members of the Security Council will have been able to observe that in the last few days it has become possible to arrange for the resumption of the discussions. I hope that these resumed discussions will be fruitful. However, it seems appropriate at this time to provide the Security Council with a somewhat fuller account of the activities of the Special Representative than heretofore.

I. ACTIVITIES OF THE SPECIAL REPRESENTATIVE DURING THE PERIOD 9 DECEMBER 1967 TO 26 NOVEMBER 1968

4. When the Special Representative first met with the parties in December 1967, he found that the Israeli Government was of the firm view that a settlement of the Middle East question could be reached only through direct negotiations between the parties culminating in a peace treaty and that there could be no question of withdrawal of their forces prior to such a settlement. On 27 December, the Minister for Foreign Affairs of Israel, Mr. Abba Eban, communicate to the Special Representative a proposal that Israel and the United Arab Republic representatives should, as a first step, discuss an agenda for peace. The Israeli proposals for such an agenda were:

"1. *Political and juridical problems:* The replacement of cease-fire arrangements by peace treaties ending the state of belligency, ending all hostile acts and threats and embodying a permanent undertaking of mutual non-aggression.

"2. *Territorial and security problems:* The determination of agreed territorial boundaries and security arrangements. Agreement on this measure would determine the deployment of armed forces after the cease-fire.

"3. *Navigation problems:* Practical methods should be discussed for ensuring free navigation for all states including Israel in the Suez Canal and the Gulf of Aqaba when the cease-fire is replaced by peace. In the light of tragic experience, it is evident that international declarations cannot by themselves solve this problem. Concrete measures and guarantees are required.

"4. *Economic problems:* Proposals for terminating boycott practices and instituting normal economic relations."

5. The United Arab Republic and Jordan, for their part, insisted that there could be no question of discussions between the parties until the Israeli forces had been withdrawn to the positions occupied by them prior to 5 June 1967. Reacting specifically to the Israeli proposals for discussing an agenda for peace, the Minister for Foreign Affairs of the United Arab Republic, Mr. Mahmoud Riad, stated that the withdrawal of Israel's forces to the positions held prior to June 1967 was a basic and preliminary step to a peaceful settlement in the Middle East.

6. An Israeli proposal for discussions on an agenda for peace with Jordan was submitted to the Special Representative on 7 January 1968. It followed the same general lines as the proposal for the United Arab Republic but contained more detailed suggestions for economic co-operation, as well as the following new topics:

"Humanitarian problems: In the proposed negotiation, high priority should be given to a solution of the refugee problem with international and regional co-operation.

"Religious and historical sites: Access to sites of special religious significance should be discussed. The Government of Israel clarified its view on this subject in several verbal and written communications to the United Nations."

It was also stated:

"In the meantime, it is urgent that breaches of the cease-fire and activities by El Fatah and other such organizations should be suppressed and every effort made on both sides to avoid exchanges of fire."

7. The proposals, when communicated to the Jordanian authorities by the Special Representative, were objected to in the same way as the proposals to the United Arab Republic had been.

8. Faced with these conflicting positions, the Special Representative sought to obtain from the parties an assurance that they would implement Security Council resolution 242 (1967), in the hope that such a declaration would be regarded as a basis for subsequent discussions between the parties. The Special Representative received from Foreign Minister Eban a number of formulations of Israel's position on the Security Council resolution, of which the last, dated 19 February 1968, read as follows:

"1. The Government of Israel, out of respect for the Security Council's resolution of 22 November 1967 and responding affirmatively thereto, assures you of its full co-operation in your efforts with the States concerned to promote agreement and to achieve an accepted settlement for the establishment of a just and lasting peace, in accordance with your mandate under the resolution.

"2. Israel's position has throughout been that the best way to achieve the objective of the Security Council resolution is through direct negotiations. However, as a further indication of Israeli's co-operation, we are willing that this be done in a meeting convened by the Special Representative of the Secretary-General.

"3. On 12 February 1968, I informed you of Israel's acceptance of the Security Council's call in its resolution of 22 November 1967 for the promotion of agreement on the establishment of peace. The United Arab Republic is also aware of Israel's willingness as explained on 1 February to negotiate on all matters included in the Security Council's resolution. We accept the sponsor's view that the principles recommended for inclusion in the peace settlement are integrally linked and interdependent.

"4. We have noted the United Arab Republic's willingness to 'implement' the Security Council's resolution and fulfil its obligations thereunder. It is a matter of concern that the United Arab Republic statements, unlike those of Israel, do not specifically use the precise terms of the resolution in such crucial matters as 'agreement' and the 'establishment of a just and lasting peace', and that the United Arab Republic has not yet agreed to a process of negotiation without which, of course, a declaration of willingness to fulfil the resolution is of no substantive effort. The resolution is a framework for agreement. It cannot be fulfilled without a direct exchange of views and proposals leading to bilateral contractual commitments. The United Arab Republic position is, therefore, still deficient in important respects. We are, however, conscious of the importance of the fact that the United Arab Republic and Israel have both responded affirmatively to call for co-operating with you in the mission laid upon you by the Security Council. At the same time, it would be unrealistic to ignore that there have been sharp differences of interpretation of what the resolution entails. To subscribe to similar declarations does not of itself solve practical issues at stake.

"5. It is accordingly urgent to move forward to a more substantive stage and to embark on a meaningful negotiation for achieving the just and lasting peace called for by the Security Council."

In discussions with the Special Representative, Foreign Minister Eban stated that Israel would not object to an indirect approach to negotiations provided that it was designed to lead to a later stage of direct negotiations and agreement.

9. The United Arab Republic Foreign Minister gave repeated assurances that the United Arab Republic was ready to implement the Security Council resolution as a whole and to fulfil its obligations under it, but stated that it would not accept direct negotiations. The United Arab Republic accepted indirect negotiations; however, the first step must be an Israeli declaration "in clear language" that it would implement the Security Council resolution.

10. The Jordanian authorities expressed a similar point of view to the Special Representative.

11. The Special Representative then proceeded to United Nations Headquarters for consultations with the Secretary-General. Returning to the area at the beginning of March, he informally presented to the parties, to ascertain their reactions, a draft letter from himself to the Secretary-General, which would be worded as follows:

"The Governments of Israel and the United Arab Republic [Jordan] have both indicated to me that they accept Security Council resolution 242 (1967) of 22 November 1967 for achieving a peaceful and accepted settlement of the Middle East question and intend to devise arrangements, under my auspices, for the implementation of the provisions of the resolution.

"The two Governments have expressed their willingness to co-operate with me in my capacity as Special Representative of the Secretary-General in the discharge of my tasks of promoting agreement and achieving such a settlement.

"In view of the urgency of the situation and with a view to expediting efforts to reach settlement, I have invited the two Governments to meet with me, for conferences within the framework of the Security Council resolution, in Nicosia. I have pleasure in informing you that the two Governments have responded favourably to this invitation."

12. When Ambassador Jarring presented this text to the United Arab Republic Foreign Minister on 7 March 1968, the latter stated that recent statements by Israeli leaders showed that they were following an expansionist line. It was no longer sufficient to have Israel give an assurance of intent to implement the resolution; the Arabs had to be satisfied that the Israelis were going to "implement it for action". If the Israelis withdrew completely from the occupied territories, peace could be arrived at by the implementation of the other provisions of the Security Council resolution under the Council's guidance.

13. In a meeting on 10 March, the Special Representative informed the Israeli Foreign Minister of the United Arab Republic attitude. He then informally showed his draft letter to the Foreign Minister, who expressed the personal view that it would be fully acceptable to the Israeli authorities if it was also accepted by the other side and led to contacts between them. Subsequently the Special Representative was informed of Israeli's official acceptance, without conditions, of the text.

14. In a meeting on 14 March, the Jordanian authorities stated that they were ready to accept the proposed meeting in principle provided that the text was modified to read that the parties had "declared their readiness to implement the resolution".

15. During the following weeks, Ambassador Jarring paid repeated visits to the countries concerned in an endeavor to obtain from the Israelis a more precise formulation of their acceptance of the resolution and from the two Arab States acceptance of the idea of meetings between the parties under his auspices.

16. At a meeting in Amman on 16 April 1968, the Jordanian authorities stated that they were prepared to accept the text of the Special Representative's draft letter provided that the third paragraph was amended to read as follows:

"In view of the urgency of the situation and with a view to expediting efforts to reach settlements, I will meet with representatives of Israel and Jordan for conferences within the framework of the Security Council resolution, in New York. I have pleasure in informing you that the two Governments have responded favourably hereto."

The acceptance was based on the assumption that the United Arab Republic would accept an identical text.

17. The Israeli authorities found difficulties in the Jordanian amended text. They had accepted meetings at Nicosia, on the understanding that the Special Representative's invitation would lead to joint meetings. The new text appeared to give the impression that only meetings between the parties and the Special Representative were intended. The change of venue, while not objectionable in principle, tended to create the impression that only discussions with the permanent missions in the scope of normal United Nations activities would take place; a change from Nicosia to a European city would be acceptable.

18. The United Arab Republic Foreign Minister at first continued to insist on a prior declaration by Israel of its intention to implement the Security Council resolution. Finally, however, on 9 May, on the eve of the Special Representative's departure from the area (see following paragraph), he replied to the Special Representative's proposed invitation in the form amended by Jordan in the following written statement:

"With reference to your indication to me today of your desire to meet with a representative of the United Arab Republic in New York, I wish to reaffirm the readiness of our Permanent Representative to the United Nations in New York to meet with you to continue the contacts which you have been conducting with the parties concerned in accordance with Security Council resolution 242 (1967) of 22 November 1967 for the implementation of that resolution.

"I have referred in the course of our previous meetings to the importance of the setting of a timetable for the implementation of the resolution of the Security Council, and offered you several alternatives toward that end, one of which, that you present a timetable prepared by yourself for the implementation of the resolution. These suggestions emanate from the United Arab Republic's indication to you of its acceptance and readiness to implement the above mentioned resolution.

"I wish to express anew our willingness to co-operate with you in your capacity as Special Representative of the Secretary-General in the discharge of your tasks as defined in the Council's resolution of the 22nd of November 1967."

The United Arab Republic Foreign Minister repeated that the United Arab Republic was ready to implement the resolution as a whole and as a "package deal." It insisted, however, that Israel should do likewise, including complete withdrawal.

19. Ambassador Jarring was faced with a position where there was now agreement, though clearly with considerable differences of interpretation, on the first two paragraphs of his proposed invitation, but where there was disagreement on the third paragraph containing the actual invitation. Further journeying backwards and forwards between the various countries was unlikely to be productive. In consultations with me, he considered issuing a formal invitation along the lines of his proposal, but with the venue at New York, but it was felt that a forced acceptance obtained by such an invitation would not be helpful. Instead it was decided that the talks in New York should begin without a formal invitation by the Special Representative or a letter from the Special Representative to the Secretary-General but on the basis of a short statement to the press in which it would be announced that the Special Representative was arriving in New York for consultations in continuation of his mission.

20. During his stay in the area, the Special Representative visited Beirut on three occasions. The Lebanese Government expressed its full support for a solution according to Security Council resolution 242 (1967). Lebanon, however, had no territory under occupation and therefore did not have the same detailed involvement in the settlement as the United Arab Republic and Jordan. The Special Representative did not visit Syria, whose Government, as noted above, had not accepted the Security Council resolution.

21. Ambassador Jarring left the area on May 10, 1968 and arrived at Headquarters on May 15, 1968.

22. In the five weeks following his arrival at New York, Ambassador Jarring pursued actively his contacts with the permanent representatives of the parties at both a formal and informal level. Unfortunately these contacts did not serve in any way to break the dead-lock between the parties concerning the interpretation of the Security Council resolution and the manner in which it should be implemented. In that regard, the Permanent Representative of Israel had stated in the Security Council on May 1, 1968:

"In declarations and statements made publicly and to Mr. Jarring, my Government has indicated its acceptance of the Security Council resolution for the promotion of agreement on the establishment of a just and durable peace. I am also authorized to reaffirm that we are willing to seek agreement with each Arab State on all the matters included in that resolution."

This statement was not regarded as acceptable by the Arab representatives.

23. Returning to New York on 22 July after a short stay in Europe during which he had met in various capitals the Foreign Ministers of the United Arab Republic, Israel and Jordan, Ambassador Jarring decided, with my approval, to return to the Middle East and resume his direct contacts with the parties. This second round of discussions, which began on 16 August 1968, took the form of an exchange of questions and of comments between the parties through the Special Representative. Some progress in the clarification of the respective positions of the parties had been made when the opening of the twenty-third session of the General Assembly caused the venue of the discusions to be transferred to New York, where they could be carried out with greater convenience. With the arrival of the foreign ministers of the parties for the session toward the end of September, Ambassador Jarring began a series of frequent meetings with them individually, which were at first mainly of an informal nature but which, following the delivery by the foreign ministers of their speeches in the general debate, assumed a more formal character and concluded with written communications from the Foreign Ministers of Israel and of the United Arab Republic restating the positions of their respective Governments. Those written statements were in amplification of the positions of the parties as publicly stated in the General Assembly and made clear the essential differences between them. Or the one hand, Israel regarded the Security Council resolution as a statement of principles in the light of which the parties should negotiate peace and, on the other hand, the United Arab Republic considered that the resolution provided a plan for settlement of the Middle East dispute to be implemented by the parties according to modalities to be established by the Special Representative. It was also abundantly clear that there was a crucial difference of opinion over the meaning to be attached to the withdrawal provisions of the Security Council resolution, which according to the Arab

States applied to all territories occupied since 5 June 1967 and according to Israel applied only to the extent required when agreement had been reached between the parties on secure and recognized borders between them.

24. Discouraging though the prospects seemed, Ambassador Jarring decided to carry out another brief round of discussions in the Middle East. As he explained in a letter to me, dated 26 November 1968, he had in mind inviting the parties to a new round of discussions in the middle of January 1969 in order to give them time for reflection and for careful consideration of their respective positions.[1]

II. ACTIVITIES OF THE SPECIAL REPRESENTATIVE FROM 27 NOVEMBER 1968 TO JUNE 1970

25. Ambassador Jarring departed from Headquarters on 27 November 1968 and met with representatives of Israel in Nicosia on 2 and 3 December, of the United Arab Republic in Cairo on 4 December and of Jordan in Amman on 7 December. Unfortunately, these meetings did not reveal a change of position in the attitude of the parties that would have made it expedient for Ambassador Jarring to convene a meeting of the parties in the middle of January 1969, as envisaged in his letter of 26 November 1968.

26. After resuming for a time his duties as Ambassador of Sweden to the Union of Soviet Socialist Republics, Ambassador Jarring returned to Headquarters on 29 January 1969. He there undertook a series of personal contacts with the Permanent Representatives of the parties and the representatives of other Member States.

27. At that stage, Ambassador Jarring concluded, with my concurrence, that the best contribution which he could make to breaking the existing deadlock was to make a further tour of the Middle East in which he would submit formally to the parties a series of questions designed to elicit their attitude towards Security Council resolution 242 (1967). He accordingly left New York on 21 February 1969 for the Middle East. At meetings with the Foreign Ministers of the United Arab Republic on 5 March, of Israel on 9 March and of Lebanon on 14 March, he submitted the questions which he had previously prepared. The replies of the parties were received by Ambassador Jarring as follows:

Israel: handed to Ambassador Jarring in Jerusalem by the Minister for Foreign Affairs on 2 April 1969.

Jordan: received by Ambassador Jarring in Nicosia on 24 March 1969.

Lebanon: received by Ambassador Jarring in Moscow on 21 April 1969.

United Arab Republic: handed to Ambassador Jarring in Cairo by the Minister for Foreign Affairs of the United Arab Republic on 27 March 1969. The questions and replies are reproduced in annex I.

28. It had been the hope of Ambassador Jarring, in submitting his questions, that the replies might show certain encouraging features which might make it possible to invite the parties for a series of meetings between them and him at some mutually convenient place. Unfortunately, the replies were in general a repetition of attitudes already expressed to Ambassador Jarring on numerous occasions from the beginning of his mission. They showed continuous serious divergencies between the Arab States and Israel both as regards the interpretation to be given to the Security Council resolution and as to the procedures for putting its provisions into effect.

29. Ambassador Jarring was regretfully forced to conclude, with my agreement, that the conditions for convening a useful series of meetings at that time did not exist and that there was no further move which he could usefully make at that stage. He therefore returned on 5 April 1969 to Moscow, where he resumed his duties as Ambassador of Sweden to the Union of Soviet Socialist Republics.

30. Ambassador Jarring continued to keep in close touch with me and with representatives of the parties and of other interested States.

31. Ambassador Jarring returned to Headquarters from 12 September to 8 October 1969 ad from 10 to 26 March 1970, but found no new elements which would permit him to organize active discussions with the parties. On each occasion he returned to his post in Moscow.

32. On 3 April 1969, the Permanent Representatives of France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland and the United States of America began a series of meetings on the Middle East question, which have continued at various intervals up to the present time. After each such meeting, the Chairman reported to me on the substance of the discussions and I kept Ambassador Jarring informed.

ANNEX I. QUESTIONS SUBMITTED IN MARCH 1969 RE THE SPECIAL REPRESENTATIVE TO THE GOVERNMENTS CONCERNED AND THEIR REPLIES

Note: Ambassador Jarring submitted his questions to the States concerned in the form of separate lists specifically addressed to each Government. Those lists were, however, prepared from a general list applicable to all the parties and that list is, to save repetition, reproduced here. As some questions related to provisions of Security Council resolution 242 (1967) which applied to only one or some of the parties, the numbers of questions in the specific lists were not always the same as those in the general list. Where the number of the answer differs from that of the question in the general list, the latter number is added in square brackets.

Specific lists of questions based on the following general list were submitted by Ambassador Jarring to the Governments of the United Arab Republic on 5 March, of Jordan on 8 March, of Israel on 9 March and of Lebanon on 14 March 1969.

A. Questions submitted by the Special Representative

Security Council resolution 242 (1967) sets out provisions and principles in accordance with which a peaceful and accepted settlement of the Middle East Question should be achieved. Some of these provisions would impose obligations on both sides, some on one side, and some on the other. It has generally been accepted that they should be regarded as a whole. The following questions designed to elicit the attitude of the parties towards the provisions of the Security Council resolution are based on this assumption and are to be understood in the context that each provision is regarded as part of a "package deal".

1. Does Israel (Jordan, Lebanon, United Arab Republic) accept Security Council resolution 242 (1967) for implementation for achieving a peaceful and accepted settlement of the Middle East Question in accordance with the provisions and principles contained in the resolution?

2. Does Israel (Jordan, Lebanon, United Arab Republic) agree to pledge termination of all claims or states of belligerency with Jordan, Lebanon and the United Arab Republic (Israel)?

3. Does Israel (Jordan, Lebanon, United Arab Republic) agree to pledge respect for and acknowledgement of the sovereignty, territorial integrity and political independence of Jordan, Lebanon and the United Arab Republic (Israel)?

4. Does Israel (Jordan, Lebanon, United Arab Republic) accept the right of Jordan, Lebanon and the United Arab Republic (Israel) to live in peace within secure and recognized boundaries free from threats or acts of force?

5. If so, what is the conception of secure and recognized boundaries held by Israel (Jordan, Lebanon, United Arab Republic)?

6. Does Israel agree to withdraw its armed forces from territories occupied by it in the recent conflict?

7. Does the United Arab Republic agree to guarantee freedom of navigation for Israel through international waterways in the area, in particular:

(a) through the Straits of Tiran, and

(b) through the Suez Canal?

8. Does Israel (Jordan, Lebanon, United Arab Republic) agree that, if a plan for the just settlement of the refugee problem is worked out and presented to the parties for their consideration, the acceptance in principle of such a plan by the parties and the declaration of their intention to implement it in good faith constitute sufficient implementation of this provision of the Security Council resolution to justify the implementation of the other provisions?

9. Does Israel (Jordan, Lebanon, United Arab Republic) agree that the territorial inviolability and political independence of the States in the area should be guaranteed:

(a) by the establishment of demilitarized zones;

(b) through additional measures?

10. Does Israel agree that such demilitarized zones should include areas on its side of its boundaries?

11. Does Jordan agree that a demilitarized zone should be established in Jordanian territory from which Israel armed forces have been withdrawn?

12. Does the United Arab Republic agree that a demilitarized zone should be established:

(a) at Sharm-el-Sheikh;

(b) in other parts of the Sinai peninsula?

13. Does Israel (Jordan, Lebanon, United Arab Republic) agree that demilitarization of such zones should be supervised and maintained by the United Nations?

14. Would Israel (Jordan, Lebanon, United Arab Republic) accept as a final act of agreement on all provisions a mutually signed multilateral document which would incorporate the agreed conditions for a just and lasting peace?

B. Reply of the Government of Israel

(Handed to Ambassador Jarring in Jerusalem by the Minister for Foreign Affairs on 2 April 1969.)

JERUSALEM,
April 2, 1969.

DEAR AMBASSADOR JARRING: Israel's position on all the subjects raised in your eleven questions has been stated in detail in my address to the General Assembly of 8 October 1968, and in the memoranda presented to you on 15 October 1968 and 4 November 1968.

I now enclose specific replies in an affirmative spirit to the questions as formulated. It is my understanding that on the basis of the answers received from the three governments you propose to pursue further mutual clarifications in an effort to promote agreement on all the matters at issue in accordance with your mandate. We are ready to join in this process at any appropriate place.

Israel's statements of attitude, including her replies to these questions, has taken into account recent developments in Arab policy including the speeches recently delivered by President Nasser and other Arab leaders. We have noted the specific and emphatic reiteration of their refusal to make peace with Israel, to recognize Israel, to negotiate with Israel, to cease terrorist attacks on Israel or to admit the possibility of sov-

[1] For the texts of the letter from Ambassador Jarring and the reply by the Secretary-General, see S/8309/Add. 4.

ereign co-existence in any field. It would appear at this time that the effective negation by the UAR of the principles of the Charter and of the Security Council's Resolution is obvious and vehement. We hope that this policy, to which effect is given every day, will change; but these authoritative statements have caused deep concern and have intensified the tension which we would have wished to see relieved.

It is also our view that highly publicized encounters by four member States have weakened the attention which should have been concentrated on the efforts of the parties themselves to move towards agreement. They are causing a duplication and dispersal of effort. They have also encouraged a wrong impression in some quarters that a solution can be sought outside the region and without its governments. Israel recognizes your mission as the authoritative international framework within which peace between the States in the Middle East should be promoted.

I recall the idea which we discussed some weeks ago that the Foreign Ministers of the three governments should meet with you soon at a suitable place to pursue the promotion of agreement. As you will remember, I reacted positively to this idea. I wish to reaffirm that Israel will continue to co-operate with you in the fulfilment of your mission.

Yours sincerely,

(Signed) ABBA EBAN.

Answer to Question One: Israel accepts the Security Council resolution (242) for the promotion of agreement on the establishment of a just and lasting peace, to be reached by negotiation and agreements between the governments concerned. Implementation of agreements should begin when agreement has been concluded on all their provisions.

Answer to Question Two: It is the Arab States, not Israel which claimed and originated states of belligerency. They declared themselves for two decades to be in a state of unilateral war with Israel. It is therefore primarily incumbent upon them to terminate the state of war with Israel.

On the establishment of peace with her Arab neighbours, Israel agrees to the termination, on a reciprocal basis, of all claims or states of belligerency with each State with which peace is established. A declaration specifying each State by name would be made by Israel in each case.

The corresponding statement by any Arab State must specifically renounce belligerency "with Israel" and not "with any state in the area." Legal obligations must be specific in regard to those by whom they are bound.

Renunciation of belligerency includes the cessation of all maritime interference, the cessation of boycott measures involving third parties; the annulment of reservations made by Arab States on the applicability to Israel of their obligations under international conventions to which they have adhered; non-adherence to political and military alliances and pacts directed against Israel or including States unwilling to renounce claims or states of belligerency with Israel and maintain peaceful relations with it; the non-stationing of armed forces of such other States on the territory of the contracting States and the prohibition and prevention in the territory of Arab States of all preparations, actions or expeditions by irregular or para-military groups or by individuals directed against the lives, security or property of Israel in any part of the world.

The last stipulation is without prejudice to the fact that the responsibility of Arab governments for preventing such activities is legally binding under the cease-fire established by the parties in June 1967.

Answer to Question Three: Israel agrees to respect and acknowledge the sovereignty, territorial integrity and political independence of neighbouring Arab States; this principle would be embodied in peace treaties establishing agreed boundaries.

Answer to Question Four: Israel accepts the right of Jordan, Lebanon, the United Arab Republic and other neighbouring States to live in peace within secure and recognized boundaries, free from threats or acts of force. Explicit and unequivocal reciprocity is Israel's only conditions for this acceptance. "Acts of Force" include all preparations, actions or expeditions by irregular or paramilitary groups or by individuals directed against the life, security or property of Israel in any part of the world.

Answer to Question Five: Secure and recognized boundaries have never yet existed between Israel and the Arab States; accordingly, they should now be established as part of the peace-making process. The cease-fire should be replaced by peace treaties establishing permanent, secure and recognized boundaries as agreed upon through negotiation between the governments concerned.

Answer to Question Six: When permanent, secure and recognized boundaries are agreed upon and established between Israel and each of the neighbouring Arab States, the disposition of forces will be carried out in full accordance with the boundaries determined in the peace treaties.

Answer to Question Seven (general question 8): The refugee problem was caused by the wars launched against Israel by Arab States, and has been perpetuated through the refusal of Arab States to establish peaceful relations with Israel. In view of the human problems involved in this issue Israel has expressed its willingness to give priority to the attainment of an agreement for the solution of this problem through regional and international co-operation. We believe that agreement could be sought even in advance of peace negotiations. We suggest that a conference of Middle Eastern States should be convened together with the Governments contribution to refugee relief and the Specialized Agencies of the United Nations, in order to chart a five-year plan for the solution of the refugee problem in the framework of a lasting peace and the integration of refugees into productive life. This conference can be called in advance of peace negotiations.

Joint refugee integration and rehabilitation commissions should be established by the governments concerned in order to work out agreed projects for refugee integration on a regional basis with international assistance.

In view of the special humanitarian nature of this issue we do not make agreement on plans for a solution of the refugee problem contingent on agreement on any other aspect of the Middle Eastern problem. For the same reason it should not be invoked by Arab States to obstruct agreement on other problems.

Answer to Question Eight (general question 9): The effective guarantee for the territorial inviolability and political independence of States lies in the strict observance by the governments of their treaty obligations. In the context of peace providing for full respect for the sovereignty of States and the establishment of agreed boundaries, other security measures may be discussed by the contracting governments.

Answer to Questions Nine and Ten (general questions 10 and 13): Without prejudice to what is stated in answer to Question Eight, it is pointed out that experience has shown that the measures mentioned in Questions Nine and Ten have not prevented the preparation and carrying out of aggression against Israel.

Answer to Question Eleven (general question 14): Peace must be judically expressed, contractually defined and reciprocally binding in accordance with established norms of international law and practice. Accordingly. Israel's position is that the peace should be embodied in bilateral peace treaties between Israel and each Arab State incorporating all the agreed conditions for a just and lasting peace. The treaties, once signed and ratified, should be registered with the Secretariat of the United Nations in accordance with Article 102 of the United Nations Charter.

APRIL 3, 1969.

C. Reply of the Government of Jordan

Received by Ambassador Jarring in Nicosia on 24 March 1969.)

MARCH 23, 1969.

His Excellency Ambassador GUNNAR JARRING,
Special Representative to
The Secretary-General of
the United Nations.

YOUR EXCELLENCY: Following are the answers of my Government to the questions which you presented to us in Amman, on Saturday, 8 March 1969. The answers as numbered, hereunder, correspond to your questions.

These answers explain my Government's position, which position has repeatedly been stated to Your Excellency throughout our past meetings.

May I take this opportunity to express to you my continued sincere wishes for your success in the important mission with which you are entrusted.

Yours sincerely,

(Signed) ABDUL MONEM RIFA'I,
Minister of Foreign Affairs.

Answer (1): Jordan, as it has declared before, accepts the Security Council resolution 242 (1967) and is ready to implement it in order to achieve a peaceful and accepted settlement in accordance with the provisions and principles contained in the resolution.

Answer (2): Jordan agrees to pledge termination of all claims or states of belligerency. Such a pledge becomes effective upon withdrawal of Israeli forces from all Arab territories which Israel occupied as a result of its aggression of 5 June 1967.

A pledge by Israel to terminate the state of belligerency would be meaningful only when Israel withdraws its forces from all Arab territories it occupied since 5 June 1967.

Answer (3): On 5 June 1967 Israel launched its aggression against three Arab States, violating their sovereignty and territorial integrity. Agreement to pledge respect for and acknowledgement of the sovereignty, territorial integrity and political independence of every State in the area requires the termination by Israel of its occupation and the withdrawal of its forces from all the Arab territories it occupied as a result of its aggression of 5 June.

Answer (4): Jordan accepts the right of every State in the area to live in peace within secure and recognized boundaries free from threats or acts of force, provided that Israel withdraws its forces from all Arab territories it occupied since 5 June 1967, and implements the Security Council resolution of 22 November 1967.

Answer (5): When the question of Palestine was brought before the United Nations in 1947, the General Assembly adopted its resolution 181 (II) of 29 November 1947 for the partition of Palestine and defined Israel's boundaries.

Answer (6) (general question 8): It has always been our position that the just settlement of the refugee problem is embodied in paragraph 11 of the General Assembly resolution 194 of December 1948 which has been repeatedly reaffirmed by each and every General Assembly session ever since its adoption.

If a plan on the basis of that paragraph is presented for consideration to the parties concerned, its acceptance by the parties and the declaration of their intention to implement it in good faith, with adequate guarantees for its full implementation, would justify the implementation of the other provisions of the resolution.

Answer (7) (8) (general questions 9 and 11): We do not believe that the establishment of demilitarized zones is a necessity. However, Jordan shall not oppose the establishment of such zones if they are astride the boundaries.

Answer (*9*) (general question 13): In case demilitarized zones are established Jordan accepts that such zones be supervised and maintained by the United Nations.

Answer (*10*) (general question 14): In view of our past experience with Israel and her denunciation of four agreements signed by her with Arab States we consider that the instrument to be signed by Jordan engaging her to carry out her obligations, would be addressed to the Security Council. Israel would likewise sign and address to the Security Council an instrument engaging her to carry out her obligations emanating from the Security Council resolution of 22 November 1967. The endorsement by the Security Council of these documents would constitute the final multilateral act of agreement.

D. Reply of the Government of Lebanon

(Received by Ambassador Jarring in Moscow on 21 April 1969.)

(Translated from French.)

In reply to the questionnaire which Your Excellency addressed to me on 14 March 1969, I have the honour, on behalf of the Lebanese Government, to inform you of the following:

Lebanon is essentially involved in the general context of the Israeli-Arab conflict—and, therefore, in the consequences of the war launched by Israel on 5 June 1967—because of its brotherly solidarity with the Arab States and of the threats which are constantly directed at it by Israel.

Lebanon is justified in considering, however, that the armistice agreement which it concluded with Israel on 23 March 1949 remains valid, as indicated in its message of 10 June 1967 to the Chairman of the Mixed Armistice Commission and as confirmed by U Thant, Secretary-General of the United Nations, in his report to the General Assembly of 19 September 1967. In that report, Mr. Thant, referring to the actual text of the agreement, said that it could be revised or suspended only by mutual consent. In view of Lebanon's circumstances, now and in the past, the armistice lines have, of course, never been changed. These lines, it should be noted, correspond to the frontiers of Lebanon which have always been internationally recognized in bilateral and multilateral diplomatic instruments as well as by the League of Nations and the United Nations. Lebanon participated actively in the drafting of the United Nations Charter and was admitted in its present form and structure to membership in the Organization. Its frontiers have not undergone any *de facto* or *de jure* alteration as a result of the cease-fire decisions taken by the Security Council after 5 June 1967.

It may be appropriate to state the abovementioned facts, more particularly with a view to explaining the nature and character of the only reply which we are in a position to give to the questionnaire sent to us by Your Excellency on 14 March 1969.

In this reply, which reflects the position taken by Lebanon at inter-Arab conferences, we proclaim Lebanon's support of the position of the Arab States whose territory has been occupied by Israel and which have accepted the Security Council's decision of 22 November 1967.

The present note is consistent with the spirit of the talks which you have already held with various Lebanese officials.

Accept, Sir, the assurances of my highest consideration.

(Signed) YOUSSET SALEM,
Minister for Foreign Affairs.

E. Reply of the Government of the United Arab Republic

(Handed to Ambassador Jarring in Cairo by the Minister for Foreign Affairs of the United Arab Republic on 27 March 1969.)

The memorandum handed to you on 5 March 1969 during your recent visit to Cairo clearly expresses the realities of the present situation. In its items 1 to 7, the memorandum gives a clear restatement of the position of the United Arab Republic which is based on the acceptance of the Security Council resolution 242 of 22 November 1967, and its readiness to carry out the obligations emanating therefrom.

The memorandum also clearly expounds Israel's persistance in rejecting the Security Council resolution and its refusal to carry out its obligations emanating from it as well as Israel's plans for annexation of Arab lands through war; a policy not only prohibited by the Charter of the United Nations but also violates the Security Council resolution which specifically emphasizes the inadmissability of the acquisition of territory by war. It has become obvious that Israel, in its endeavour to realize its expansionist aims, is no longer satisfied with the actual rejection of the Security Council resolution but actively works against it.

The same memorandum also states Israel's expansion plan as revealed by the quoted statements of Israeli leaders. This plan aims at:

1. Annexation of Jerusalem;
2. Keeping the Syrian Heights under its occupation;
3. Occupation of the West Bank in Jordan and its complete domination, practically terminating Jordan's sovereignty in that part;
4. Economic and administrative integration of the Gaza strip into Israel and the systematic eviction of its inhabitants;
5. Occupation of Sharm El-Sheikh and the Gulf of Aqaba area as well as the continued military presence in eastern part of Sinai;
6. The establishment of Israeli settlements in occupied territories.

This Israeli position constitutes a flagrant violation and clear rejection of the Security Council resolution of 22 November 1967 and of the peaceful settlement for which it provides.

In the light of these undeniable facts, I find it incumbent upon me to state categorically, at the outset of the replies to the specific questions you addressed to the United Arab Republic on 5 March 1969, that all the answers of the United Arab Republic, which reaffirm its acceptance of the Security Council resolution and its readiness to carry out the obligations emanating from it require, likewise, that Israel accept the resolution and carry out all its obligations emanating from it and in particular withdrawal from all Arab territories it occupied as a result of its aggression of 5 June 1967.

Question (*1*): The United Arab Republic, as it has declared before, accepts the Security Council resolution 242 (1967) and is ready to implement it in order to achieve a peaceful and accepted settlement in accordance with the provisions and principles contained therein.

Question (*2*): The United Arab Republic agrees to pledge termination of all claims or state of belligerency. Such a pledge becomes effective upon withdrawal of Israel's forces from all Arab territories occupied as a result of Israel's aggression of 5 June 1967.

A declaration by Israel terminating the state of belligerency would be meaningful only when Israel withdraws her forces from all Arab territories it occupied since 5 June 1967.

Question (*3*): On 5 June 1967, Israel launched its aggression against three Arab States violating their sovereignty and territorial integrity. Acceptance by the United Arab Republic to pledge respect for and acknowledgement of the sovereignty, territorial integrity and political independence of every State in the area requires the termination by Israel of its occupation and the withdrawal of its forces from all the Arab territories it occupied as a result of its aggression of 5 June, and the full implementation of the Security Council resolution of 22 November 1967.

Question (*4*): The United Arab Republic accepts the right of every State in the area to live in peace within secure and recognized boundaries free from threats or acts of force, provided that Israel withdraws its forces from all Arab territories occupied as a result of its aggression of 5 June 1967, and implements the Security Council resolution of 22 November 1967.

Question (*5*): When the question of Palestine was brought before the United Nations in 1947, the General Assembly adopted its resolution 181 of 29 November 1947, for the partition of Palestine and defined Israel's boundaries.

Question (*6*) (General question): We have declared our readiness to implement all the provisions of the Security Council resolution covering, *inter alia*, the freedom of navigation in international waterways in the area; provided that Israel, likewise, implements all provisions of the Security Council resolution.

Question (*7*) (General question 8): It has always been our position that the just settlement of the refugee problem is embodied in paragraph 11 of the General Assembly resolution 194 of December 1948, which has been unfailingly reaffirmed by each and every General Assembly session ever since its adoption.

If a plan on the basis of that paragraph is presented for consideration to the parties concerned, its acceptance by the parties and the declaration of their intention to implement it in good faith, with adequate guarantees for its full implementation would justify the implementation of the other provisions of the Security Council resolution.

Question (*8*), (*9*) (General questions 9 and 12): We do not believe that the establishment of demilitarized zones is a necessity. However, the United Arab Republic will not oppose the establishment of such zones if they are astride the boundaries.

Question (*10*) (General question 13): In case demilitarized zones are established the United Arab Republic accepts that such zones be supervised and maintained by the United Nations.

Question (*11*) (General question 14): In view of our past experience with Israel and her denunciation of four agreements signed by her with Arab States, we consider that the instrument to be signed by the United Arab Republic engaging her to carry out her obligations, should be addressed to the Security Council. Israel should, likewise, sign and address to the Security Council an instrument engaging her to carry out her obligations emanating from the Security Council Resolution of 22 November 1967. The endorsement by the Security Council of these documents would constitute the final multilateral document.

CAIRO, March 27, 1969.

DEPARTMENT OF DEFENSE INDEPENDENT RESEARCH AND DEVELOPMENT

Mr. McINTYRE. Mr. President, during last year's debate on the military procurement authorization bill a considerable amount of time was spent discussing the language which was included in the report filed by the Senate Armed Services Committee relating to the subject of independent research and development—I.R. & D. I would like to recount briefly for the benefit of Senators, who may not recall what transpired, that this subject was the basis for very extensive hearings conducted by the ad hoc Committee on Research and Development of which I am privileged to be chairman.

During the hearings this highly complex issue, which was investigated and reported upon by the General Accounting Office, was addressed by a wide range of witnesses from the various industry associations. Appearances were also made by representatives of the AEC, NASA,

the Comptroller General, and by the distinguished Senator from Wisconsin (Mr. PROXMIRE) and the distinguished Senator from California (Mr. CRANSTON).

A complete record of those hearings, which were open to the public, was made a part of the hearings published by the Armed Services Committee on the fiscal 1971 military procurement authorization bill. The specific language, which was included as section 203 of the bill, was reported by the committee and adopted by the Senate. I ask unanimous consent to have printed at this point in the RECORD the language of section 203, as passed by the Senate.

There being no objection, the item was ordered to be printed in the RECORD, as follows:

SEC. 203. (a) Funds authorized for appropriation to the Department of Defense under the provisions of this Act or any other Act shall not be available for payment of independent research and development, bid and proposal, or other technical effort costs unless the work for which payment is made is relevant to the functions or operations of the Department of Defense and unless the following conditions are met—

(1) the Secretary of Defense, prior to or during each fiscal year, negotiates advance agreements establishing a dollar ceiling on such costs with all companies which during their last preceding fiscal year received more than $2,000,000 of independent research and development, bid and proposal, or other technical effort payments from the Department of Defense, the advance agreements thus negotiated (A) to cover the first fiscal year of each such company beginning on or after the beginning of each fiscal year of the Federal Government and (B) to be concluded either directly with each such company or with those product divisions of each such company which contract directly with the Department of Defense and themselves received more than $250,000 of such payments during their company's last preceding fiscal year.

(2) the independent research and development portions of the advance agreements thus negotiated are based on company submitted plans on each of which a technical evaluation is performed by the Department of Defense prior to or during the fiscal year covered by such advance agreement;

(3) no payments for independent research and development, bid and proposal, and other technical effort costs are made by the Department of Defense to any company or product division with which an advance agreement is required by subsection (a)(1) of this section, except pursuant to the terms of that agreement; and

(4) the total dollar value of the advance agreements negotiated prior to or during a given fiscal year as required under subsection (a)(1) of this section does not exceed a ceiling to be established annually by the Congress.

(b) In the event negotiations are held with any company or product division with which they are required under subsection (a)(1) of this section, but no agreement is reached with any such company or product division—

(1) no payments for independent research and development, bid and proposal, and other technical effort costs shall be made to any such company or product division during the fiscal year for which an agreement was not reached, except in an amount substantially less than the amount which, in the opinion of the Department of Defense, such company or product division would otherwise have been entitled to receive; and

(2) the amount of money received by that company for independent research and development, bid and proposal, and other technical effort costs during its last preceding fiscal year shall be included in determining compliance by the Department of Defense with the ceiling established by Congress, pursuant to subsection (a)(4) of this section, for the fiscal year in question.

(c) The Secretary of Defense shall submit an annual report to the Congress on or before January 31, 1972, and on or before January 31 of each succeeding year, setting forth—

(1) those companies with which negotiations were held pursuant to subsection (a)(1) of this section prior to or during the preceding fiscal year, together with the result of those negotiations;

(2) the manner of his compliance with the ceiling established by Congress for the preceding fiscal year pursuant to subsection (a)(4) of this section; and

(3) the latest available Defense Contract Audit Agency statistics on the independent research and development, bid and proposal, and other technical effort payments made to major defense contractors whether or not covered by subsection (a)(1) of this section.

(d) The provisions of this section shall apply only to contracts for which the submission and certification of cost or pricing data are required in accordance with section 2306(f) of title 10, United States Code.

(e) The ceiling to be established pursuant to subsection (a)(4) of this section for fiscal year ending June 30, 1971, shall be $625,000,000.

(f) Section 403 of Public Law 91-121 (80 Stat. 204) is hereby repealed.

Mr. McINTYRE. Mr. President, let me briefly summarize the main provisions of section 203 as passed by the Senate:

First. It would require the Defense Department to negotiate advance agreements with all contractors who, during their preceding fiscal year, received payments in excess of $2 million for Independent Research and Development—I.R. & D., Bid and Proposal—B. & P.—and Other Technical Efforts—OTE.

Second. It would require that the I.R. & D. portions of this defense agreement be accompanied by technical evaluations of contractors' proposed I.R. & D. programs.

Third. It would require that no payments be made for I.R. & D., B. & P. and OTE work not relevant to the functions and operations of the Department of Defense.

Fourth. It would have established a ceiling of $625 million on the payments to be made by the Department of Defense pursuant to the advance agreement required to be negotiated during fiscal year 1971.

Subsequently, in conference with the House, whose bill contained no restrictions on this matter, the Senate receded on several of the major features of this section, and the bill as finally enacted was substantially watered down. Specifically, the requirement for relevancy to Defense programs was eliminated and language was adopted which indicated that, in the opinion of the Secretary of Defense, the work was required merely to have "potential application" to a military function. Also, and perhaps most important, the specific ceiling of $625 million was eliminated.

Section 203, also required submittal of an annual report to the Congress on or before March 15 each year. The first report was received on March 15, 1971, and contained a number of significant features.

Mr. President, I ask unanimous consent to have printed at this point in the RECORD the text of the letter of transmittal, the report by the Department of Defense, and copies of implementing Defense instructions which already have been issued or which are pending distribution by that Department.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

WASHINGTON, D.C.,
March 12, 1971.

Hon. SPIRO T. AGNEW,
President of the Senate,
Washington, D.C.

DEAR MR. PRESIDENT: The Secretary of Defense has requested that I prepare and submit to you a report on Independent Research and Development and Bid and Proposal costs as required under section 203, paragraph (c) of the 1971 Department of Defense Military Procurement Authorization Act (PL 91-441). This section requires the submittal of an annual report to the Congress on or before March 15 each year setting forth—

"(1) those companies with which negotiations were held pursuant to subsection (a)(1) of this section prior to or during the preceding fiscal year of the Federal Government, together with the results of those negotiations;

(2) the latest available Defense Contract Audit Agency statistics, estimated to the extent necessary, on the Independent Research and Development or Bid and Proposal payments made to major defense contractors, whether or not covered by subsection (a)(1) of this section during the preceding calendar year; and

(3) the manner of his compliance with the provisions of this section, and any major policy changes proposed to be made by the Department of Defense in the administration of its contractors' Independent Research and Development and Bid and Proposal programs."

This is the first report to be submitted in compliance with this new legislation. The report is in three parts corresponding to the three items quoted above. Parts I and II were compiled from detailed data gathered from individual companies. This detailed company information is very sensitive and is not included in the report; however, it will be made available for review.

Sincerely,

BARRY J. SHILLITO,
Assistant Secretary of Defense,
(Installations and Logistics).

REPORT TO THE CONGRESS ON INDEPENDENT RESEARCH AND DEVELOPMENT COSTS AND BID AND PROPOSAL COSTS

PART I

Companies with which negotiations were held pursuant to Section 203 prior to or during the preceding fiscal year of the Federal Government and the results of those negotiations.

Section 203 became effective January 1, 1971. Therefore no negotiations subject to its provisions were held in the Federal Government's prior fiscal year. The first complete report of these negotiations will be furnished in the report due on March 15, 1972.

Since the law became effective negotiations have been conducted with a few contractors. Other contractors have submitted data to the Defense Department in preparation for negotiating advance agreements for Independent Research and Development and Bid and Proposal costs. A report showing the results or status of these negotiations is furnished herewith.

On the basis of data presently available we estimate that under the provisions of Defense Procurement Circular 84 which was published to implement Section 203, advance agreement negotiations will be required with between 60 and 80 companies in calendar year 1971.

NEGOTIATIONS COMPLETED (OR IN PROGRESS) AND RESULTS

[Status as of Mar. 1, 1971]

Number of companies	Total program dollars proposed by contractors			Total advance agreement ceiling dollars negotiated by DOD, I.R. & D. plus B. & P.	Estimated DOD share of ceiling dollars negotiated
	I.R. & D.	B. & P.	Total		
Completed negotiations (7) [1]	$47,350,000	$30,513,000	$77,863,000	$63,251,000	$44,443,000
Negotiations in progress (17)	208,071,000	190,375,000	398,446,000	[2]	
Preliminary data received (6)	134,210,000	[3]			

[1] 2 of the 7 companies have completed negotiations for certain divisions but have not completed negotiation of advance agreements for all divisions. The completed negotiations are included in the dollars shown.

[2] Negotiations not completed.

[3] Data not yet furnished by contractors.

PART II

Latest available Defense Contract Audit Agency statistics, estimated to the extent necessary, on the Independent Research and Development (IR&D) or Bid and Proposal (B&P) payments made to major defense contractors, whether or not covered by Subsection (a)(1) of this Section [203, PL 91–441] during the preceding calendar year.

The statistics required are provided in the attached DCAA report. The report shows total IR&D and total B&P costs incurred by the contractors reviewed, the amount accepted or recognized by the Department of Defense and the DOD share. In addition, total sales of the contractors are shown along with the portion representing DOD sales.

The amount listed under the column heading "amount accepted by Govt." represents the sum of the ceilings negotiated with individual contractors as well as the sum of amounts recognized for other contractors who had no advance agreements. These accepted amounts are not the costs reimbursed by the DOD but are the amounts that the DOD recognizes for allocation to all the contractors' business. The DOD portion is shown under the column headed "DOD share."

Page 2 of the report shows the portion of the total dollars reported which was covered by advance agreements. It should be noted that, in the past, very few advance agreements were negotiated for B&P. Therefore the dollar amount of B&P costs shown on Page 2 is low as compared to the amount for IR&D. Page 3 reflects IR&D and B&P costs for which no advance agreements were negotiated.

Although not required by Section 203 a report is also included showing other technical effort (OTE) costs. The cost principles included in the Department of Defense Procurement Regulation are presently being modified to include, in their definitions of IR&D and B&P, certain technical costs not now included. Since these revised definitions are not yet effective OTE costs are being furnished to provide consistency with data for other years previously furnished informally to Congressional staff representatives.

It will be noted that DATA for both 1969 and 1970 are furnished. It has been the practice to update data previously furnished because latest year figures include significant amounts of estimated information. The 1969 figures presented here have had most of the estimated data replaced with actual data. The report furnished next year will similarly update the 1970 data furnished herewith.

A complete explanation of the information contained in the report is provided in the foreword which precedes Page 1. It will be noted that certain classes of contractors have been excluded from the report even though they fall within the group of contractors having $10 million or more. These classes of contractors are excluded because they incur little or no IR&D expense. Likewise, they incur very little B&P expense of an R&D nature. Inclusion of these contractors would therefore not be meaningful.

SUMMARY OF INDEPENDENT RESEARCH AND DEVELOPMENT AND BID AND PROPOSAL COSTS INCURRED BY MAJOR DEFENSE CONTRACTORS IN THE YEARS 1969 AND 1970

FOREWORD

This summary report presents the latest available Defense Contract Audit Agency (DCAA) statistics, estimated to the extent necessary, on the independent research and development (IR&D) or bid and proposal (B&P) payments made to major defense contractors. The statistical data are submitted for inclusion in the annual report to be submitted by the Secretary of Defense to the Congress on or before March 15, 1971, in accordance with paragraph (c), Section 203, Public Law 91–441. The data set forth in this statistical summary report are similar in nature to the information previously furnished to the Office of the Assistant Secretary of Defense (Installations and Logistics) (OASD (I&L)), for calendar years 1968 and 1969.

The summary on page 1 is an overall presentation of IR&D and B&P costs incurred by 98 major defense contractors during their fiscal years 1969 and 1970, amounts accepted by the Government, and the Department of Defense (DoD) share of amounts so accepted. The column "Amount Accepted by the Government" contains amounts considered allowable and allocable to all contractor work performed—Government and commercial. The DoD share of the costs accepted each year is computed by applying the ratio of contractors' defense sales to the contractors' total sales that year. In addition, this summary shows related sales achieved by the 98 contractors, comprising 188 reporting divisions and/or operating groups.

The defense contractors represented in this summary are those who had an annual auditable volume of costs incurred in excess of $10 million as of December 31, 1970, and a few other contractors who, although not meeting the auditable volume criterion, had advance agreements for IR&D and/or B&P costs. Contractors specifically excluded from this summary are construction companies; educational institutions; foreign contractors and overseas operations of U.S. contractors; Government - owned - contractor - operated (GOCO) plant contractors; insurance companies; Job Corps Training Center contractors; major laborators (Jet Propulsion Laboratory, California Institute of Technology; Massachusetts Institute of Technology; Applied Physics Laboratory, Johns Hopkins University; etc.); marine transport contractors; and military medicare contractors. These exclusions are contracting activities which incurred nominal or no IR&D and B&P costs. Details in support of the summary are contained in a separate statistical report, designated "For Official Use Only," copies of which are available through OASD (I&L) or DCAA.

The summary on page 2 indicates the extent of advance agreements in effect during either one or both years. Costs not subject to advance agreements are summarized on page 3.

DCAA obtained the IR&D and B&P cost and sales data from contractors' records, but such data do not necessarily represent audited amounts. Included in the costs shown are amounts accepted by the Government in overhead negotiations and through advance agreements. Where actual cost and sales data were not available, as in the case of calendar year contractors who had not completed the closing of their books for 1970, DCAA auditors obtained reasonable estimates. It should be noted that the contractor sales shown do not necessarily equal total contractor sales, but rather the sales of the individual contractor divisions and/or operating groups that are listed in DCAA's detailed supporting report. DCAA did not attempt to determine the reasons for increases or decreases in contractor costs and sales between the years 1969 and 1970.

SUMMARY OF INDEPENDENT RESEARCH AND DEVELOPMENT AND BID AND PROPOSAL COSTS INCURRED AND SALES ACHIEVED BY MAJOR DEFENSE CONTRACTORS FOR CALENDAR YEARS 1969 AND 1970

[In millions of dollars]

	1969			1970		
	Costs incurred	Amount accepted by Government	DOD share	Costs incurred	Amount accepted by Government	DOD share
Independent research and development	$808	$653	$389	$714	$576	$347
Bid and proposal	426	407	286	411	391	275
Total I.R. & D. and bid and proposal costs	1,234	1,060	675	1,125	967	622
Sales—Total Government and commercial	36,430			34,314		
Sales—Total DOD			22,692			21,260

SUMMARY OF INDEPENDENT RESEARCH AND DEVELOPMENT AND BID AND PROPOSAL COSTS INCURRED BY MAJOR DEFENSE CONTRACTORS WITH ADVANCE AGREEMENTS

[In millions of dollars]

Independent research and development	$698	$556	$335	$614	$487	$302
Bid and proposal	134	127	80	150	141	98
Total I.R. & D. and B. & P. costs	832	683	415	764	628	400

SUMMARY OF INDEPENDENT RESEARCH AND DEVELOPMENT AND BID AND PROPOSAL COSTS INCURRED BY MAJOR DEFENSE CONTRACTORS WITHOUT ADVANCE AGREEMENTS

[In millions of dollars]

	1969			1970		
	Costs incurred	Amount accepted by Government	DOD share	Costs incurred	Amount accepted by Government	DOD share
Independent research and development	$110	$97	$54	$100	$89	$45
Bid and proposal	292	280	206	261	250	177
Total I.R. & D. and B. & P. costs	402	377	260	361	339	222

SUMMARY OF OTHER INDEPENDENT TECHNICAL EFFORT COSTS INCURRED BY MAJOR DEFENSE CONTRACTORS IN THE YEARS 1969 AND 1970

(Prepared by Defense Contract Audit Agency)

FOREWORD

This summary report presents at a glance the extent of other technical effort (OTE) costs incurred by 56 major defense contractors in their fiscal years 1969 and 1970. It also presents the total amount of such costs accepted by the Government each year, the Department of Defense (DoD) share of the amounts so accepted, and related contractor sales. The costs and sales shown for each year are supported by a more detailed OTE report issued by the Defense Contract Audit Agency (DCAA) to the Office of the Assistant Secretary of Defense (Installations and Logistics) (OASD (I&L)). The detailed report, in addition to listing the major defense contractors in alphabetical sequence, contains individual descriptions of OTE costs incurred each year. Copies of the detailed report are available through OASD (I&L) and/or DCAA.

DCAA summarized the OTE cost data from the information appearing in the detailed OTE report, which is based on costs and descriptions obtained from the records of the major defense contractors. As stated in this summary report, the costs and sales do not necessarily represent audited amounts. Included in the costs shown are amounts accepted by the Government is overhead negotiations or other overhead settlements. Where contractor actual OTE cost data and sales were not available, DCAA auditors obtained reasonable estimates. DCAA did not attempt to determine the reasons for increases or decreases in costs and sales between the years 1969 and 1970.

The "Amount Accepted by the Government" represents amounts considered allowable and allocable to all contractor work performed—Government and commercial. The "DoD Share of Amount Accepted by the Government" comprises individual contractor amounts computed by applying a percentage ratio to the amounts so accepted. This ratio is the relationship of a contractor's defense sales to total sales for the year.

There is no universally accepted definition of OTE. For the purpose of reporting these summary statistics, OTE is defined as indirect technical efforts which are essentially in the nature of IR&D or B&P work, but which may not be identified as such in contractors' accounting records. In view of this definition, DCAA auditors were required to exercise judgment in determining reportable accounts and descriptions. Because of the numerous methods and descriptions used by contractors to account for OTE costs, it should be recognized that the various types of technical effort may not be reported for all of the 56 contractors. These contractors are included among the 98 major defense contractors listed in DCAA's statistical IR&D/B&P report of March 1971, submitted to the Secretary of Defense in accordance with Section 203, Public Law 91–441. Thus, of these 98 contractors who incurred IR&D and B&P costs in their fiscal years 1969 and 1970, 42 did not incur costs considered to be OTE within the foregoing definition.

SUMMARY OF OTHER TECHNICAL EFFORT COSTS INCURRED BY MAJOR DEFENSE CONTRACTORS

[In millions of dollars]

	1969	1970
Costs incurred	178	169
Amount accepted by the Government	128	120
DOD share of amount accepted by the Government	79	73
Sales:		
Total Government and commercial	19,140	18,602
Total DOD	11,499	11,055

Mr. McINTYRE. Mr. President, I should like to report at this time, based upon a review of this documentation, that the Department of Defense is complying with the provisions of this section and is planning to impose certain additional measures which should be constructive. I make specific reference to the establishment of a data bank to provide a centralized body of technical information to enable Government investigators to identify I.R. & D. projects and technology involved. This data bank will represent an important source of data which will be available not only to the various agencies of the Federal Government, but also to qualified contractors.

The tests of the I.R. & D. data bank have been completed and the Department of Defense is waiting for approval of the reporting format from the Office of Management and Budget. The Department of Defense plans to start inputs into the data bank during this first quarter of 1971.

I am pleased to report, Mr. President, that the report for 1970 marks a reversal of the rising trend of expenditures made by the Department of Defense for its share of contractor I.R. & D., B. & P., and OET work. The total amount reimbursed by the Department of Defense amounts to $695 million which is $59 million lower than the $754 million spent during 1969. If this trend continues, we may expect to see the report for 1971, when it is submitted a year from now, reflect a further decline from the 1970 level. It may even approach the ceiling of $625 million which the Senate established in its action on the 1971 military procurement authorization bill, but which was defeated in conference.

Since the provisions of section 203 became effective less than 3 months ago, the decline in expenditures do not result from that language. Rather it may be attributed in part to the decline in Defense spending with industry for goods and services from $45.4 billion in fiscal 1968 to $43.4 billion in fiscal 1969; and in part to the restrictive language of section 403 of the fiscal 1970 Military Procurement Authorization Act which limited payments for I.R. & D., B. & P., and OTE to 93 percent of the total amount contemplated for such purposes. It remains to be seen if section 203 implementation will contain total expenditures within reasonable limits, or if further restrictive legislation may be needed for fiscal year 1973.

The report also contains information relating to the results of negotiations conducted with only a small number of contractors since the beginning of 1971, but this information is not sufficiently representative to provide a basis for predicting what will happen during the remaining 9 months of 1971.

The Department of Defense is to be commended on its diligence and cooperation in the prompt implementation of the provisions of section 203.

I shall continue to monitor their performance closely to insure that expenditures for I.R. & D., B. & P., and OTE are maintained within reasonable limits and are in strict conformance with section 203. It is my intent to obtain an estimate from the Department of Defense of their expenditures for 1971, and to compare this with actual performance a year from now in determining at that time if additional legislation is needed.

QUORUM CALL

The PRESIDING OFFICER. Is there further morning business?

Mr. BYRD of West Virginia. Mr. President, I suggest the absence of a quorum.

The ACTING PRESIDENT pro tempore. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. MOSS. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

CONCLUSION OF MORNING BUSINESS

The ACTING PRESIDENT pro tempore. Is there further morning business? If not, morning business is concluded.

FURTHER CONTINUING APPROPRIATIONS, 1971

The ACTING PRESIDENT pro tempore. The Chair lays before the Senate the unfinished business, which the clerk will state.

The assistant legislative clerk read as follows:

A joint resolution (H.J. Res. 468) making certain further continuing appropriations for the fiscal year 1971, and for other purposes.

Mr. MOSS. Mr. President, I suggest the absence of a quorum, and ask unanimous consent that the time utilized for the quorum call be equally divided.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. MOSS. Mr. President, I ask unanimous consent the order for the quorum call be rescinded.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

Mr. MOSS. Mr. President, I ask to be recognized.

Mr. BIBLE. Mr. President, I yield to the Senator from Utah such time as he may require. I understand that we will speak for 10 or 15 minutes. I yield him 15 minutes.

Mr. MOSS. Mr. President, as we all know, the question before the Senate today has to do with the supersonic transport. In fact, one reading our periodicals would find people making book on it, as it were, like a world series game or any other sporting event. The big question of the hour is, Are there more votes for it or more votes against it? Everybody concedes that it will be very close.

As I see the question before the Senate, it is not whether there will be supersonic transports in use around the world in the years ahead. That decision already has been made. There will be supersonic transports. So those who pin their hopes on killing supersonic transports and believe that the action of this body, coupled with the action of the House, will rid our planet of supersonic civilian transport planes had better forget that.

Incidentally, inasmuch as we are discussing this matter, those who see the supersonic transport as something evil and doing damage, and that sort of thing, should remember that for 10 years we have been flying supersonic military aircraft; and I am told that our own military establishment has more than 500,000 hours of supersonic transport flying time. In the part of the country where I live, one can hear a sonic boom almost any time. It is usually far off. There is just a little pop, and if one is not sophisticated, he may not even realize it is a sonic boom; but it is the military aircraft that are flying over this country all the time.

The military did some experiments with these sonic booms, and there is no question that if they become of a certain intensity, in a certain manner, they can do some damage. Therefore, the Senate passed—I think the vote was unanimous—a bill that provides that civilian supersonic planes must not fly over the continental United States at supersonic speeds, meaning that they would have to be over the polar cap or over the ocean, someplace offshore, before they went supersonic. Nevertheless, that applies only to civilian planes and does not apply to military planes, and our military planes are flying now.

The real question, therefore, it seems to me, is not whether we are going to have supersonic planes, both military and civilian. The question is whether there will be an American supersonic civilian transport in use or whether the Russians, and perhaps the French and British, will supply the market for these planes, because it is perfectly evident that they are coming. This is the next step in the field of transportation.

When our civilization—our country and other countries—moved from the horse and buggy to the automobile, there were many predictions and many people said it would never take, that it was just a fad. Besides, they said, who needs to get down to Aunt Nellie's in 15 minutes, when he can hitch up the horses and get there in 30? There is no need to hurry like that. Nobody would want to travel cross country at a faster speed. After all, there are railroads, so why have automobiles?

So, to me, the only realistic position to take is to assume and to recognize that the SST must be built. It is the next step on in transportation. Just as inevitably as we went from the automobile to the airplane and from the propeller airplane to the jet airplane, the next step on in the state of the art, the next demand of our changing mode of life, our interchange internationally, is that we will fly supersonically.

The supersonic plane must be built not only for the obvious economic reasons but also because we can insist that extensive research work be done that will protect us from the environmental hazards. That, it seems to me, is where much of the criticism has centered, by raising the specter of doubt about the ecological hazards, the pollutants that may be created by the supersonic transport.

Since it is going to fly anyway—somebody is going to be flying it—I think we are much better off if, by setting the specifications here and by carefully monitoring the building of the engines and the building of the plane, we can require that technology protect us to the maximum degree possible—perhaps totally, but to the maximum degree possible—from any kind of pollutants being produced by the planes, by protecting us from the noise side effects, by protecting us from all the spectres that have been raised.

Harking back to our 500,000 hours of military flying, I have not yet heard anything about those military flights having left a great deal of pollutants in the atmosphere or the stratosphere, nor have I heard any extensive complaint about the sonic boom.

As I have said, in certain places they have concentrated it, by experiment, and there has been some damage there. We do it militarily. Why does it suddenly become so unacceptable and impossible if we talk about doing it with a civilian plane?

Before I go on to my discussion of this matter, I should like to say that in the field of protection of the ecology and control of pollution, I do not yield to any man in my dedication to the protection of our environment. As Senators well know, I was an early and devoted advocate of both water and air pollution control measures, joining with the distinguished Senator from Maine and many others in the Committee on Public Works in developing the many environmental control proposals which came out of that committee. We began back in 1960, before it was fashionable to talk about the environment, or to worry about the pollution of our streams, or to be concerned with our air. We continued with that work through the whole decade of the 1960's. I cosponsored and worked for every major water and air pollution bill which passed the Senate in the past 12 years. Similarly, as a member of the Committee on Interior and Insular Affairs, I have helped to develop laws to keep our wilderness and our wild rivers in a virgin state, and to establish outdoor recreational areas, national parks, and national recreational areas. I have supported every other step that we have taken to protect our environment from degradation.

So, surely, my credentials as an environmentalist are in order.

It is, therefore, in some sense, difficult for me to stand here today in opposition to some of my allies in former ecological battles and plead that we fund the SST. But we must do so. I feel that no other course is realistic.

I said earlier that it was not within our power, here today, to decide whether or not the SST would fly.

Over the weekend, the Soviet Union announced that its SST, the TU–144, would be operational before the end of the year and its pilots will begin training shortly.

Avia-export, the official Soviet aviation exporting organization, has been running full color ads in Aviation Weekly, offering the TU–144 for sale. The Russians are requesting a bilateral airworthiness code that will permit them to sell planes in this country.

It seems to me it is obvious they mean business, that they are well along the road, and that they are going to fly their planes and they will fly them here.

In what position would we be, to say that, if they meet the standards we set up for noise and pollution, "Well, we now become an isolated hermit kingdom and

we do not let planes land in our country?"

Obviously, we are going to have to let them fly their planes here, or expel ourselves from the general international flow of military traffic. Certainly if we did that, we would invite retaliation against landing our subsonic planes elsewhere, if we do not let supersonic planes come in.

Mr. BIBLE. Mr. President, will the distinguished Senator from Utah yield at that point?

Mr. MOSS. I am happy to yield to the distinguished Senator from Nevada.

Mr. BIBLE. The Senator just mentioned the fact that the Soviet Union wants to sell their TU–144's. My attention has been directed to a newspaper article from the Las Vegas Review-Journal, of Las Vegas, Nev., of last Wednesday, March 17, 1971—a week ago today—which has a big, black caption, "Soviet SST To Sell in U.S." The article is written by Carole Foryst of the Chicago Sun-Times, and it reads, in part, as follows:

> The Soviet Union has made an exclusive agreement with a Louisiana aircraft dealer to sell the Russian TU–144 supersonic transport in the Western Hemisphere, it was reported today.
>
> Doyle G. Berry, owner of Berry Aviation Co., Berwick, La., said the sales agreement was reached in Moscow last week after negotiations with Viatcheslav M. Serov and T. Fljorov, both vice presidents of Aviaexport—the Soviet aircraft sales organization.
>
> The agreement represents a major aircraft marketing breakthrough for the Russians, who are making strong attempts to get a portion of the commercial aircraft market now dominated by the United States.
>
> The TU–144 is scheduled to go into domestic service in the Soviet Union in October.

I thought that would just simply underscore the point the Senator from Utah is making.

Mr. MOSS. I thank my colleague from Nevada for his comments. They are exactly in point with the thought I have been trying to develop. I agree that the Soviet Union is going to fly its TU–144's. In fact, I am informed they will have the TU–144 at the Paris Air Show on the first of June this year. It will be on display for all to come and see. The Paris Air Show, of course, is the greatest international air show of them all, to which all the countries of the world come. I think the Russians will aggressively attempt to sell their airplane to other countries.

Mr. President, where do you think a good bulk of their sales will come from? They will come from international airlines, who have traditionally bought the lion's share of their planes from American airplane manufacturers. It is these sales, and the sales of replacement parts, that now contribute a substantial positive component to our balance of trade. But the next big purchase orders will be for SST's. So, if we bow out of the competition now, the airlines will have no choice but to buy from the Russians, the British, or the French. Although our economists may disapprove, the airlines say that they will buy.

In fact, they have some tentative orders in right now. So the airplanes will be purchased. They will be very expensive. If our airlines purchase offshore, it means that that much money will flow out to the producing country, be it Russia, or be it the French or the British with their Concorde, rather than the flow being the other way, which it has been during all the time the aviation industry has been developing in the past 40 to 50 years, because we have been preeminent in this field. We have been the leader in producing airframes and aircraft engines for civilian transport.

Anyone who has traveled around the world knows that no matter where he goes, he will see DC–8's, 707's——

The PRESIDING OFFICER (Mr. BENTSEN). The time of the Senator from Utah has expired.

Mr. BIBLE. Mr. President, I yield the Senator from Utah 5 additional minutes.

The PRESIDING OFFICER. The Senator from Utah is recognized for 5 additional minutes.

Mr. MOSS. Clear on down the scale to old C–47's, and DC–3's. But they are all American aircraft. That is what we have been able to do. That is what we have been able to supply the world. It has contributed immensely to the economic development and well-being of this country.

Economists disagree over the long-term economic implications of this decision for the United States. I agree that both sides have made some exaggerated claims. But what is clear is that a decision to terminate this project now is unwarranted. Having put over $800 million into it, to pull the string now and say, "That is all," when we are only talking about finishing out a total amount of money that will come to $1.2 billion to put two prototypes in the air, is unrealistic and unwise. It will mean the loss of thousands of jobs in the short term and perhaps, tens of thousands over the long term. It will mean the loss of tax dollars and loss of millions of dollars in foreign trade for domestic companies. The economic and technological edge in the aerospace industries will tilt away from America.

I do not believe that we can view these facts lightly. We must remember that the money we spend for our great liberal programs—health, education, antipoverty, and, yes, even cleaning up the environment—is available because it has been generated by a basically productive economy.

This body well knows that I have supported all those programs in health, education, and the termination of poverty and the environment; and the reason that I have felt I could vote to support them is that we have a tremendously productive economy, a great gross national product, and we have a favorable balance of trade. So that we can do these other things, if we have the money. But, if the money is gone, then we will have trouble doing it. If we fail to maintain our economic strength, I assure you Mr. President, that we will not have the luxury of debating which of the multi-billion-dollar health, education, or social welfare measures we will enact.

I believe that the airlines of the world—competing fiercely for the flying public dollar—are going, sooner or later, to put in operation a plane which will get a passenger to his destination in one-half, one-third, one-sixth of the time he is now using, and probably with far greater ease and comfort.

This has been the history of the world. We continue to expand our life style. We continue year after year, decade after decade, century after century, to improve the places in which we live and the places in which we work and vacation, and the methods which get us in between them.

Our mobility has increased with the passing of each era. In the 1970's, the next step in the improvement of our mobility appears to be the SST.

Mr. President, to those who say, "Well, if we are going to go into the SST, why don't we just let the aircraft companies themselves do it; they surely have the money," let me say, without debating the intricacies of that matter of whether they could get the money, that the Government in this instance, just as it does in other matters, has always been a contributor to the research and development money that brings out a new aircraft. Heretofore we have done it largely through the development of military planes which could then be very readily adapted to civilian planes. In this instance we do not happen to have a military plane developed that could be turned over and made into a passenger SST. For that reason, we have some of the money coming in directly rather than coming from the military.

This brings us to the hard question of this debate.

Will the SST so contaminate our atmosphere that we dare not fly it?

Surely, much more research must be done on the environment of the stratosphere. Surely, much more research must be done on how to eliminate the pollutants in the SST prototypes. But that means we must do that research, not throw up our hands in despair. Automobiles, sewage systems, industrial plants: all are substantial polluters of our environment. Yet, we are confident that, with the application of more technology, we will be able to eliminate pollution in these areas. Why not the SST? The answer is, of course, that with sufficient research we can make the SST environmentally safe. And part of the funds in this appropriation will go for just that purpose.

The PRESIDING OFFICER (Mr. BENTSEN). The Senator's time has expired.

Mr. BIBLE. Mr. President, I yield the Senator an additional 5 minutes.

The PRESIDING OFFICER. The Senator is recognized for an additional 5 minutes.

Mr. MOSS. Mr. President, where sufficient research has been done, ways have been found to minimize the environmental impact. Engines will be cleaner, and will be as quiet or quieter than those of present subsonic jets. After further study the potential effects of carbon dioxide and water vapor released into the atmosphere seem to be far less serious than was originally thought on the basis of sketchy data. The current scare about skin cancer is based on very hotly disputed sets of statistics. More research will

have to be done on this and other areas of concern. Only then will we have the information to assess the real impact the SST will have, and the technology to modify the design if necessary.

This body has already taken steps to make the operation of the SST compatible with environmental considerations. I mentioned earlier S. 1117, which would prohibit supersonic commercial flights over land. We have the power to require an even stricter set of environmental standards under which the SST must operate, as we did for automobiles last year.

Automobiles are everywhere in our country. Congress decided that emissions from automobiles must be decreased drastically and by law we required the automobile companies to comply, and they must now comply, within the time frame given to reduce pollutants from automobiles.

If these prototypes show some type of pollutants that we feel is unacceptable, we can require that they reduce those pollutants. But I submit that the proper way to protect the environment is to do the necessary research, for which we certainly have the technological capacity, and pass the necessary laws rather than simply to give up.

The SST is going to fly; it can be made environmentally safe. An American SST will have long-term economic benefits for our country.

We should build it.

The PRESIDING OFFICER. Who yields time?

Mr. BIBLE. Mr. President, I yield 20 minutes to my colleague from Nevada.

The PRESIDING OFFICER. The Senator from Nevada is recognized for 20 minutes.

Mr. CANNON. Mr. President, I want to congratulate the Senator from Utah on the very fine comments the distinguished Senator has made. He made some very excellent points in this debate on the SST.

One of those particularly is the fact that we have in this country thousands and thousands of hours of supersonic aircraft flight experience over our own country.

Over the last 15 years I, personally, as a pilot with very limited experience, have flown more than 10 different aircraft supersonically in this country. I am not flying as a regular pilot on active duty. However, during that period of time I have personally flown supersonically the F–86, the F–100, the F–101, the F–102, the F–104, the F–105, the F–106, the T–38, the F–111, and the B–58.

For a person of my limited experience to have flown that many military aircraft supersonically over this country gives some idea of what the regular Air Force military pilots are flying constantly day in and day out in the various types of supersonic flights over our country.

Mr. President, I may say that all of these aircraft have been built with the approval of Congress, funded by the U.S. Senate and House of Representatives, to give us the capability of flying supersonically and performing supersonic missions. In addition, a few years ago we authorized a research project in connection with the B–70—which was a great military aircraft—for research and development purposes. We built all of them. We built them in the State of California, my neighboring State. They were flown and tested in California, Nevada, Utah, and throughout the great western area, much of the time in supersonic flight at very high flight regimes to give us experience in this area.

Congress in its wisdom determined not to go ahead with it and therefore did not go ahead on the production basis of the B–70.

We did produce the B–58 which had the capability of flying better than twice the speed of sound. It has been flown very successfully. It has flown through its life span and is now retired from the Air Force inventory.

The Senator from Utah made the point that we have been flying for thousands and thousands of hours supersonically in this country and we have yet to hear—I have yet to hear—anyone claim there has been any damage to the ecology or to the environment as a result of the supersonic flights that have already taken place in this country. Everything we hear about it now is to the effect that it is going to damage the ecology at some vague point in the future. If it is going to damage the ecology in the future, why has it not damaged it up to this point?

I submit that the arguments are not well taken, else we would have heard many more complaints. It is true that we have had some complaints. They have primarily been occasioned by when a pilot has pointed the nose of the aircraft toward a particular point on the ground and gone into supersonic flight. In some instances it has caused some damage. It has broken a window on occasion.

As a matter of fact, in my own city of Las Vegas, where there have been many supersonic flights, on occasion there were some complaints of damage. There was only one claim verified in that period of time. That was for one broken glass window, and the aircraft had flown supersonically for a long time over Las Vegas.

THE INTERNATIONAL SST COMPETITION

Mr. President, as we are well aware, three of the major world powers besides the United States have recognized the great potential for a major breakthrough in the speed of man's commercial transportation. The potential time saving is of about the same amount as that achieved when the subsonic jets ran the piston and turboprop powered transports off the commercial airways—refuting the dire predictions of the economists of the 1950's.

I understand that both the Concorde and the Russian TU–144 are satisfactorily passing their extensive flight tests and will prove to be viable supersonic transports, in spite of all the pessimistic reports by the present day antispeed coalitions.

First, let us look at the Concorde. It is a pure delta wing airplane about the length of a Boeing 707 and carries about half the payload of the proposed U.S. SST. It is slower, cruising at a mach number of about 2.2, and is constructed of aluminum.

Approval has been given for six production Concorde models, in addition to the two flying prototypes and two preproduction models currently under construction. Negotiations appear to be about complete at BOAC and Air France, so sale agreements could occur early this spring. Reportedly, an advanced model Concorde is also being considered which would be larger and more competitive with our SST, and the State Department has indicated Germany may join in the financing of this advanced model.

The Concorde prototype airplanes—001 and 002—had completed a total of 376 hours of development flying at the end of 1970. Of these total hours, 86 have been at supersonic speeds and approximately 12 have been at supersonic cruise speed. The total number of flights is 188 with 98 of these involving supersonic flight. The highest mach number achieved to date is 2.07—1,360 m.p.h.—and the highest altitude is 58,000 feet.

I am informed the Concorde has performed better than predicted in many areas. Both prototypes are flying satisfactorily at their supersonic cruise speed. The specific fuel consumption and vital aircraft operating characteristics have been generally established for the speed regime through mach 2 and have confirmed engineering estimates.

The Concorde will introduce a new class of transportation. History has shown that speed has value, and that the name of the game in transportation is to reduce traveltime. This has been true since the railroad train knocked out the ox cart.

Last week Sir Keith Granville, the managing director of BOAC, stated that:

BOAC's objective is to go supersonic as soon as possible and we are working in a very positive way with BAC and the government on the best way of doing so.

This is hardly compatible with statements that:

The plane can be bought by Air France and BOAC only if it flies at full capacity on every flight, an impossible assumption . . .

Just last week, Granville said:

The handling characteristics of the Concorde are excellent. It is a very precise Aircraft to fly and we have been particularly pleased with handling features at high supersonic speeds.

He described the mammoth flight and ground test program being used to develop and prove the Concorde and said:

At the present time I might describe myself as one of the few users of this Aircraft and I can assure you that one has seen, during our program to date, many visible signs that a lot of good homework has been and is being done.

Concerning environmental issues, Brian Trubshaw, BAC's flight test director and chief test pilot, said:

Our aim has been to show clearly and objectively the extent of human knowledge in this area, to distinguish between fact and guesswork and to present conclusions based on the most authoritative sources available. On the basis of these authorities, we and our French colleagues are convinced that:

(A) turbine powered aircraft offer the cleanest known practical means of transport.

(B) There is no known technical basis for fears that supersonic transports will affect the weather or harm mankind.

(C) Supersonic transports will reduce, not increase condensation trails."

Trubshaw described the sonic boom as a "nonissue" saying:

It is our understanding that flight at boom producing speeds will not be permitted over United States territory and that legislation to ensure this will shortly be enacted. Such a ban has always been assumed both in market assessments, in route analyses and in economic studies carried out for potential airline customers. Banning the boom will in no way undermine Concorde's commercial viability as 80 percent of international routes fly over unpopulated areas. Also the sheer size of the over water market lifts Concorde well away from the reach of those who would decry it as a plaything for the jet set.

Department of Transportation studies show that if there is a viable Concorde and no U.S. SST, we suffer a trade imbalance from 200 Concordes imported worth $7.0 billion and lose by not building an SST, $10.1 billion from sales abroad, for an unfavorable swing in trade balance of $17.1 billion. If a more airline-economical Concorde II appears, this unfavorable trade impact would grow to $22.1 billion. This represents a conservative estimate and is due to a greater impact upon the jumbo tri-jet market from a more commercially attractive Concorde II. However, taking into account the effect on import sales of a more favorable "family of civil aircraft," this impact could grow to $27.1 billion and, when the real world offset agreements are accounted for, then this trade impact could reach almost $30 billion, all computed in 1967 dollars, over a 12-year period—1978–90.

When we apply a conservative escalation of 3 percent per year to current dollars through 1985, only half the life of the production program, the trade impact numbers can rise dramatically from a minimum of $17.1 billion to $45.6 billion over a 12-year period, or $3.5 billion per year.

Finally, when aircraft are sold over a time period such as the U.S. SST 1978–1990 time span, the spare parts for airframe and engine support can add exports with a value of 50 percent of the initial sales price. This factor has also been largely ignored in our previous trade balance assessments. If we add this to the above highest estimate, over $50 billion trade swing can be projected.

Mr. President, it may occur to several besides myself that much of the difficulty we have experienced and continue to encounter with obtaining a true, unbiased assessment of the supersonic transport is caused by unfounded charges and irresponsible repetition of untruths. Those who have been so quick to accuse and so vociferous in condemning the supersonic transport have not only refused to acknowledge proof to the contrary, but have used every device and have gone to every extreme to assure that the great majority of the Congress and the American public would be either denied the truth entirely or would find it too obscured to be recognizable.

I have talked about the Concorde. What about the Russians? We all know they are developing their own SST, the TU–144, and from all reports the aircraft flight testing is proceeding according to plan and it is expected that the aircraft will enter its first commercial service this fall. Alexander Evstafiev, Russian press counsel, said the TU–144 would probably be used on a 4,000-mile route between Moscow and Khabarovsk. He said Russian scientists had no fear of ecological consequences. Evstafiev said capitalist countries had shown interest in purchasing the Russian plane.

The TU–144 is a delta wing supersonic transport quite similar in plan form to the Concorde, with range equal to the Concorde. It is reportedly designed to fly somewhat faster, the higher speed capability being dependent upon the application of titanium in certain critical temperature areas. The payload is slightly less than the Concorde at 120 all-tourist passengers. The TU–144 is the first commercial supersonic transport to have flown and the first to be flown at supersonic speeds.

Mr. President, what about the ability of the Russians to sell aircraft to the free world market? We know that up to now they have not been very successful, but also we know they are mounting a very strong effort in this direction.

Fast improving technology and strong desire to enter this field may make Russia a strong contender in the near future. The U.S.S.R. was recently officially accepted as a member of the International Civil Aviation Organization (ICAO). This membership is a first and vital step toward the recognition of Russian transport and other civil aircraft by the free world's certification bodies. Some U.S.S.R. transport aircraft activities are a matter of record, for example:

In Europe, Mideast, Africa, Asia, and Cuba, 1,456 Russian transport aircraft are in active airline operation.

In Afghanistan, Russians have sold Yak 40 trijets to Bakktar Afshan Airlines for $500,000 on a barter basis. The aircraft will be delivered in May 1971. Russia is sending maintenance and pilot instructors to Kabul. The airline will also send their pilots to Russia for additional training.

In Italy, the Russians have sold two Yak 40 trijets to Aerterrenia Airlines for $700,000. They have been equipped with complete Collins—United States—communications and navigation equipment. At the request of the airline, the 10 volumes of the maintenance manual have been translated from Russian into English (not Italian).

In Germany, the Russians have established Rotorcraft Air Services as distributors for the YAK 40 and the KA 26 twin-engine helicopter in Germany (FRG) and Austria.

Spare parts depot will be established at Rotorcraft at the expense of the Russians. German pilots will be trained free of charge.

It has been reported that a major African airline has purchased the following Russian aircraft:

Four TU–154's, B–727 competitor.

Four TU–134's. DC–9/B–737 competitor.

Two AN–12's, four-engine cargo turboprop.

The payment terms are 1.5 percent interest 20 year payback period. The list price of each has been discounted 45 percent. The Russians are providing a $2,000,000 flight simulator for the TU–154 at no cost. All flight and maintenance training will be free to the airline. The Russians are providing a full spares depot and the airline will pay for these spares as they are drawn out.

In anticipation of competing in the U.S. market with the YAK–40, the U.S.S.R. Government has expressed willingness to equip the aircraft with U.S.-built engines and with U.S. avionics products, a direct reversal of its previous position. Significant improvements in the quality of their sales efforts and brochuremanship, their willingness to exchange technical information, and greatly improved product support planning is further evidence of the seriousness of their intent to penetrate the market. Other civilian aircraft already flying and being offered for sale to free-world airlines by the U.S.S.R. include:

TU–144, supersonic transport—mach 2.3.

IL–62, four turbofan engines, 180 passengers, similar to the VC–10.

TU–154, three turbofan engines, 150 passengers, similar to the B–727.

The PRESIDING OFFICER. The Senator's 20 minutes have expired.

Mr. BIBLE. Mr. President, I yield my colleague an additional 5 minutes.

Mr. CANNON. Mr. President, as the Department of Commerce Bureau of Domestic Commerce reported in June 1970:

The current Soviet Aircraft export drive is aimed at more than 40 countries of the West, with publicity/demonstration tours of all types of Soviet aircraft, including helicopters.

Since the state has rigid control over aircraft production, the Soviet aviation export agency can offer whatever deliveries, terms or services is deemed necessary to satisfy customer requirements or desires. If deliveries to aeroflot, the Soviet state airline, or other Soviet-bloc airlines have to be changed to meet export commitments, national export policy reportedly dictates that this will be done.

The selling price of Soviet aircraft is obviously not established at a commercial level, but prospective customers have been aware of problems relating to international standards, spares provisioning and prices, component lives, availability of support equipment, and field technical assistance.

The Soviet aviation export officials have indicated that they recognize that to be competitive with U.S. aircraft exporters they must offer adequate support for their exported aircraft. They have developed a logistics support system offering normal delivery times of 7 days, and 48 hours express deliveries for spares required by customers on an urgent basis.

The Russians are already certificating their transports to their own, the British, and United States FAA airworthiness standards.

Mr. President, I feel it would be foolhardy indeed to write off future Russian competition in the lucrative commercial aircraft market, and their TU–144 may be just the product that will complete their available aircraft product mix and make Russian aircraft a real competitive threat.

Mr. President, I submit that three other major nations are entering strongly into the supersonic transportation age. We must not let the United States stand idly by and relinquish its traditional and most important lead in the aerospace technology and air transport fields.

The real question is: Will we have an SST, or will we buy them abroad? The SST is here. The trouble is, it is not ours, but we can catch up if we try.

Mr. BIBLE. Mr. President, I am pleased to yield 15 minutes to the Senator from Arkansas.

Mr. McCLELLAN. Mr. President, I have listened with very keen interest, and approvingly, to the remarks just made by the distinguished Senator from Nevada. He has given some detailed information that I think is very pertinent to a proper and adequate consideration of the issue before us.

Mr. President, I support a continuation of the program to produce two prototypes of an American SST.

This question engendered a great deal of controversy in the last session of the Congress, and the issue has carried over into this session. Last week, the House, by a narrow margin, voted down funds for the continuation of this prototype program. That vote took place against a background of noise and propaganda, which, in some degree, prevented a rational approach to an adequate consideration of this appropriation item.

From the testimony and debate in the House and from press coverage of the matter, it seems that many lost sight of the real issue upon which the vote was taken. The vote in the House was, and the vote here on the Senate floor will solely be, upon the question of whether to continue funding for the next 3 months of a program to manufacture and test two—may I emphasize, two—prototype supersonic transport planes. This is the real issue on which we will also vote in the Senate.

An affirmative vote for this funding will mean that this exploratory—research—program, in which the Government already has invested 864 millions of dollars, will be continued. In fact, if the Government's support were to be terminated as a result of congressional action, the costs of closing down the program would be somewhere in the area of $100 million. This money, I believe, can better be spent in the continuation of this project which is already over two-thirds completed.

The principal objections raised to the operation of a fleet of SST's relate to the possible harmful effect on the environment by the use of numbers of these aircraft. Much of the data submitted by advocates of this position is based upon pure conjecture and supposition and cannot be proved as facts. To those persons who base their opposition to the SST on these grounds, I would suggest that a sincere interest in determining the truth of the matter would seem to require the proving of their hypotheses by the developing and testing of the two prototypes. Factual data concerning the effect of the SST on the environment would be preferable, and certainly more reliable than the opinions and hypotheses now put forward by those who oppose the program.

I state for the record that I have faith that the environmental and technological challenges presented by the SST will be successfully met by the creative application of American genius and technological expertise. I might add that, as we enter a new era of environmental awareness, we should assure ourselves that our technology assessments are based as much as possible upon factual evidence, so that the evaluation process may continue to be rational and scientific and no become instead an arbitrary barrier to our technological progress—in effect, technological arrestment.

The stakes in establishing this Nation's policies are too high not to insist upon careful and thorough appraisal of all facets of a program with the minimum amount of dependence on mere conjecture and opinion. The production of the two prototypes is especially important as a research laboratory to help determine the answers to those environmental questions raised about the operation of an entire fleet of these planes.

Mr. President, it should be apparent that while the manufacture and testing of the two prototypes is in and of itself an important scientific undertaking, it is also a necessary first step if our aviation industry is ever to produce the SST commercially. This factor lends added importance to the vote to be taken on the further development of the prototypes.

I call to the attention of my colleagues an analogous situation: that is, the shocking decline of our maritime industry. If I recall correctly, in 1947 our maritime industry transported some 57 percent of the world's ocean-going cargo. In 1969 our ships carried less than 5 percent of that cargo. This decline results from a number of factors, but the point is that we can ill-afford to have a comparable situation develop in our air transport industry. The question posed by this situation is: Should America continue to compete in world trade or should we retreat and surrender our potential in the aviation transportation field and become dependent upon the ingenuity and the facilities that other countries will provide? In other words, shall we purchase SST planes from Russia, Britain, and France and possibly, ultimately, from Japan and West Germany, or shall we build our own? We know already that other nations stand ready to satisfy the market for a supersonic transport plane; and there is, Mr. President, a market for them, in my judgment. The Russians have already advertised their TU–144 supersonic transport in the March 8, 1971, issue of Aviation Week and Space Technology magazine—at pages 86–87. According to public announcement, it will go into commercial use in Russia by October of this year. And, as the distinguished Senator from Utah pointed out a little while ago, the Russians are making arrangements for the sale of this plane in the Western Hemisphere.

The British and French with their Concorde are not far behind. Even the SST opponents must concede that their prospects for keeping foreign SST's out of this country are very poor indeed—Washington Post, March 19, 1971 at A4.

A significant question raised by some is the need for government involvement in the production of these prototype SST's. This is not at all a novel situation. Federal support of the railroad industry in the 19th century, by grants of land and other means, made possible an extensive network of railways which would otherwise certainly not have been built in so short a time, if at all. That development is somewhat analogous to the problems presented by the SST. Unlike the current generation of passenger-carrying jets which had military predecessors, the SST has none. The consequence of this fact is that our aviation industry has had to begin research on the SST prototypes practically from scratch, so to speak. The investment required would have been prohibitive, much as would have been the building of our railroads over a century ago, without Federal support. Other economic reasons should be taken into account in this vote to continue the Federal commitment to the production of the two prototype airplanes.

Considerable testimony has been offered concerning the effect of the production and sale of the SST on our balance of payments. Secretary of Transportation John Volpe recently testified before the Senate Appropriations Committee that the production of a commercial SST can be expected to have a favorable $22 billion dollar impact on this Nation's balance of trade over a 12-year period spanning the 1980's. Some experts have suggested that our balance of payments is not a problem, and that this issue is irrelevant in considering the funding of the SST.

With that, Mr. President, I do not agree. I do not think anyone is in a position to predict positively whether or not this addition to a favorable balance of trade will be urgently needed in the coming years. Certainly, if present trends continue, this trade will be needed. We do know that our aviation industry is currently among a declining number of our industries which remain competitive in international markets. This factor should not be disregarded in our consideration of the funding of two prototype planes.

Mr. President, there is another significant consideration involved in this question. There are already 14,000 people at work on the development of the prototypes. This number is expected to increase as work on the engines and prototype aircraft accelerates. If the development of the prototypes proves commercially feasible, and I have no doubt that it will, the Secretary of Transportation pointed out in his testimony before the Senate Appropriations Committee that 50,000 people would be employed directly in the production of the commercial version of the aircraft. That means that many other persons would be employed indirectly.

I am advised that other estimates of employment run as high as 150,000 people, not including the impact of the supersonic transport in creating additional jobs for Americans in the operation of the airlines themselves. Whatever

the exact figures may be, there can be little doubt that a great number of jobs would be created when and if the SST should become commercially operational.

To this fact opponents have responded that the use of such figures involves an erroneous assumption that the people would not otherwise be employed if it were not for the production of the SST—perhaps so, but likely not. In this content it must be noted that our aviation industry consists of a great number of highly skilled and highly specialized personnel whose talents are not readily transferable to another field. I think most will agree that, if we can at all do so, we need to use the talents of these individuals in their field of specialization.

The PRESIDING OFFICER. The Senator's time has expired.

Mr. BIBLE. I yield the Senator 5 additional minutes.

Mr. McCLELLAN. Mr. President, the termination of the program to manufacture and test two prototype SST aircraft at this time would involve an irretrievable loss approaching $1 billion. The program is two-thirds completed; we are nearing some tangible return on this huge investment of money and manpower. Let us not throw it away.

If we continue the program and produce the prototypes, we will have the actual hardware to test the theories and hypotheses concerning alleged harm to the environment and the propaganda which led this Congress to the verge of a wasteful and imprudent action terminating this program.

I agree with the prominent Yale economist who has been quoted as saying:

> We cannot afford to give up the project at this point.

There are questions which can only be scientifically answered through the flight and testing of the prototypes.

Mr. President, I think we should remember what Dr. Samuel Johnson, the great English lexicographer and author, said:

> Nothing will ever be attempted if all possible objections must first be overcome.

This statement of Dr. Johnson, in my opinion, is directly applicable to the controversy over the continued funding of the SST.

We will never overcome all objections to it. All objections were never overcome to any progress made scientifically and technologically. There always have been objections. The objections are overcome after the issue becomes a fact, becomes a reality, and it is scientifically demonstrated that those objections were groundless or not valid.

Having gone as far as we have, we should now continue the prototype program to find out if there are indeed sound bases for all the skeptical objections that have been voiced by SST opponents. We must continue so that our technological genius can be applied to solve whatever problems actually result from the flight of the prototypes. If we stop short now and do not develop sound scientific information from flights of the prototypes, we will have deprived our Nation of any chance of having a commercially viable SST, and we will have done so on inadequate, insufficient evidence and at a shocking waste of the taxpayers' money.

Mr. President, I want my country to compete and not retreat in the fields of science, technology, and competition, and I shall vote accordingly.

I am not persuaded by the emotional objections and considerations that have been interposed to this program. We know that a comparable plane is being constructed by other governments and will soon be in operation. We also know that these planes are going to be used on the market. We need not be under any illusion that our American overseas airlines will not use these planes. We have invested heavily in this program. We have already progressed far into it. We must not now throw away all that we have gained.

The PRESIDING OFFICER. The Senator's additional time has expired.

Mr. McCLELLAN. I ask for 1 additional minute.

Mr. BIBLE. I yield the Senator 2 additional minutes.

Mr. McCLELLAN. Americans will use the foreign planes, Mr. President. The argument is made, "Why must a businessman get to London 2 hours sooner?" Well, perhaps he does not have to. But when that kind of transportation becomes available to him, when he can do it—and the time is coming when he can—he is going to take the best and do it. That is not only true with a businessman; that is true with all of us. We want and take the best in America. If we want the best and are going to take the best, let us have America build the best and not have to buy the best from other countries.

The PRESIDING OFFICER. Who yields time?

Mr. PROXMIRE. I yield to the Senator from Maine such time as he may require.

Mr. MUSKIE. I thank the distinguished Senator from Wisconsin.

Mr. President, the question that will be before the Senate today is whether the Federal Government should spend $134 million, in addition to the $868 million already spent, on the crucial problem of reducing air travel time to Paris by 3 hours. We are asked to pour more money into a supersonic commercial airliner to meet this critical problem of lowering trans-Atlantic flight time even though the plane to be built might cause severe damage to our environment and may never be able to operate profitably. Further, we are told that if the Russians or Europeans alone overcome this key problem of time lost flying over the Atlantic, the blow to America's scientific and industrial prestige will be staggering.

This sounds foolish. But it is true. And it is an indication of the tragic lack of clearsighted leadership in our Nation today.

The serious problems with the proposed SST are enormous. The wastes that it will inject in the upper atmosphere could cause sweeping damage to the world's environment. The booming noise it will make over the oceans could also result in ecological harm. The screaming of its engines on the ground will just barely fall within present required noise limits which themselves may be too high for our health protection. And in order to reduce noise on the ground, weight was added to the aircraft that will reduce payload and range, possibly guaranteeing that the SST will never run profitably. If the European example is precedent, surcharges on airfares for the SST will be high enough to shrink the SST market. In that case, the Government will never be repaid for developing an unprofitable plane that few can afford to fly. So we are pursuing the solution of ridiculously unimportant problems in a potentially disastrous manner.

I think most proponents of the SST realize that the need for it is doubtful and the problems with it are great. That is why they do not tell us what good this mammoth industrial undertaking will bring—they can only point to the alleged harm that will come from not proceeding with it. Here the SST proponents are simply not convincing.

First, they tell us that it will be horrible if the Russians or Europeans have an SST and we do not. I have never been convinced that another nation's squandering of precious resources was a good argument for doing the same here in America. Our automobile industry has been able to survive in good health in spite of the fact that we do not have a competitor with the Rolls-Royce or Ferrari cars that sell for over $25,000. I think the same will hold true with the airframe industry.

Second, on the question of balance of payments, it is clear that investment in major projects of dubious utility and doubtful profitability will not help us in this respect. I join with such diverse economists as Professors Leontief, Friedman, Heller, and Samuelson in rejecting the argument that building the SST is a rational way to help out our balance-of-payments situation.

Third, there is the question of jobs. According to the Department of Transportation, the SST will provide only 81,979 jobs at the peak of its production. That does not compare well with the 5 million presently unemployed across the Nation due to inept economic policies. At its peak, the SST will generate little more than 18,736 jobs in Seattle; right now there are 72,000 unemployed in Seattle. It is clear that the SST will not solve our cruel unemployment problem anywhere in the Nation. In fact, there are thousands of ways to spend the $447 million of requested future Government investment in the SST that would create many more jobs. And it would be difficult to find ways to spend that money, other than the SST, that could employ so few to accomplish things of such little value to our Nation.

I do not mean that the present 8,000 jobs at stake are not important. They are. But they are in jeopardy because the administration has been using the SST employees as political hostages in order to ram the SST through Congress. It was obvious a year ago that the SST was in trouble and that its lack of public support might end its public subsidy. But the

administration did not move to prepare alternate means of financing the project. They did not begin plans to help convert the generally ailing airframe industry to profitable areas of work. The administration did nothing, and this is not surprising. An administration that vetoed legislation for public service jobs, that is phasing out the highly successful JOBS program, that has done nothing to ease the plight of those out of work because of defense cutbacks, and that has used increased unemployment to fight inflation cannot be expected to make plans for those workers who might lose their jobs if the SST is not funded.

If we defeat the SST, as I think we should, I think we have the responsibility to save the jobs of those affected. It can be done, and done in a way that benefits our whole Nation.

It is not difficult to find areas in our transportation system that urgently and desperately need Government investment. We need funds for the further development of aircraft noise and air pollution abatement technology. We need research to make our airport and airways safe; the administration itself testified that we must invest over $14 billion in air safety in this decade. Also, we need terminal facilities to handle the new jumbo jets that time gained in the air is not lost on the ground.

It is foolish to spend so much money to develop a plane for a few of the affluent, when our air system today needs so much safety, pollution control, and ground facility support.

And looking to the future in aviation, we need to develop STOL and VTOL aircraft for short flights in our urban corridors to save our major airports from overwhelming traffic and continuing delays. And finally, high-speed ground transportation, such as air cushion vehicles or monorails, are required to bring airports within the reach of our cities.

Just as important as revitalizing our airways is the problem of urban mass transit. Our cities are being choked to death because of outmoded or nonexistent transit systems and the increasing reliance on automobiles. These are the transportation problems of noise, of air pollution, and of wasted space and time that must be met and decrease our attention. Yet the administration has consistently opposed full funding of the Urban Mass Transit Act, while it relentlessly pushes the SST. Today, there is a backlog of $2.2 billion in requests for urban mass transit funds; yet the Department of Transportation has frozen $200 million of the $600 million appropriated. We could spend the total 10-year Federal investment in the SST on urban mass transit and fill only about half of the pending requests for mass transit funding now before the Department of Transportation.

This policy of underinvestment in city transportation will delay for years, even a decade, decent transportation that the average American needs every day. Yet this must wait so that a few can leave New York in the morning and reach Paris by lunchtime, rather than arriving for dinner.

The administration's refusal to move on mass transit funding also threatens our health. If the clean air standards of the air pollution bill passed by Congress last year are to be met, up to 75 percent of automobile traffic in our 60 largest cities will have to be replaced by some form of mass transit. At present funding, that antipollution legislation will be destroyed.

The corporate structures that have the best technical and industrial potential to solve these aviation and mass transit problems are the airframe and defense corporations—the very jobs and capital now being tied up with the SST.

Many contend that the Boeing and General Electric technical and production capabilities cannot be readily adapted to the design and construction of urban transportation systems. But the striking characteristic of the industry points to the opposite conclusion.

The Department of Transportation itself is now finding that aerospace talents are directly and almost immediately transferable to other areas requiring high technical expertise and systems analysis capability. In fact, it was DOT's forceful argument on this point that permitted the Department to take over the Cambridge Research Center from the National Aeronautics and Space Administration. The Center and its employees, once working on sophisticated space technology, are now working on solutions to our urban transportation dilemmas. And the same transfer can take place in the aerospace industry and those portions of the aerospace industry dealing with the SST.

The Department also has current contracts with research firms such as Rand, the Institute for Defense Analysis, and Mitre. These firms had little experience in nonmilitary work until defense and space budget retrenchments forced them to apply their talents in other fields.

Other aerospace and defense firms have found it possible to change as our priorities have changed. The North American Rockwell Corp. has a DOT contract to develop a high speed urban tracked system. The Rohr Corp. is building cars for the Bay Area Rapid Transit in San Francisco and an air cushion vehicle for France. The Garrett Research Corp. is developing a linear induction motor and United Aircraft built both the vehicles and the propulsion system for the Boston-New York Turbotrain.

These aerospace concerns have found that dependency on aerospace contracts—such as the SST—is neither the way of the future in transportation, nor the key to their corporate survival. There is no reason to keep that knowledge from Boeing and General Electric.

Let us put the 8,000 SST employees, and some of the tens of thousands of defense and airframe workers, back on the job—and on a job that needs to be done.

The answer to the immediate problem of the SST is clear—let us employ the talents and money now being wasted on the SST on our real transportation needs in urban mass transit and aviation.

But we must understand that the SST is a product of a greater problem—one of leadership. As President Kennedy once said, "To govern is to choose."

And our present leaders have made the wrong choice. While millions of Americans suffer every day from the decay and pollution of cities choked with cars, our leaders chose to reduce the time on flights to Paris. While our airports became unsafe and clogged with air traffic, our leaders chose to subsidize travel for the affluent. And while our lungs are filled with poison and our ears assaulted with noise, our leaders chose to build a plane that will increase pollution and noise in our Nation.

We need leadership that can separate important problems from unimportant ones. We need leadership that can differentiate between special interests and the general welfare. We need leadership that can direct our Government, not passively accept the demands of those who benefit from unwise or unneeded programs. We need leadership that will respond to the needs of our people, not to false appeals of national pride or entrenched interests in Government subsidy.

That leadership has not come from the White House. It must be provided in the Congress. So today, we must defeat the SST.

Mr. PROXMIRE. Mr. President, will the Senator from Maine yield?

Mr. MUSKIE. I am glad to yield to the Senator from Wisconsin.

The PRESIDING OFFICER (Mr. GAMBRELL). The Senator from Wisconsin is recognized.

Mr. PROXMIRE. Mr. President, first I congratulate the Senator from Maine on his excellent speech, particularly with respect to some of the problems that have been bothering some of those who are concerned about the SST. He answered very well, I think, the jobs question with the point that there are many things we can do to provide jobs not only for the people in trouble in the aerospace industry, but also for those who suffer because of defense contracts and other areas where the Government has a clear responsibility.

I would like to ask the Senator from Maine a question on another point. The Senator from Maine shares the pride that all of us feel in our country. The Senator from Arkansas (Mr. MCCLELLAN) just made a forceful and persuasive speech in which he talked about the importance of America being first in the SST as well as in other areas.

Is it not true that today the commercial aircraft industry is without a subsidy from the Federal Government and yet we are No. 1 in the world, we dominate the world in this area as in few others.

Mr. MUSKIE. The Senator is correct. May I make this further general point, that if we seek to be first by every test and in every area of technological development, we are, indeed, going to neglect some important social programs.

As the Senator will recall my prepared remarks, we have never competed with the Rolls Royce. However, I am sure that at this point the people of Britain have

reason to feel doubt concerning the value of the Rolls Royce to the national economy of Great Britain.

Our automobile industry has always been much more responsive to the needs of the people. We have chosen to be first in the automobile industry in those areas that are of much more interest to our people. And Henry Ford is the best symbol of that.

Mr. PROXMIRE. The automobile development has occurred with private capital and through the test of the marketplace and without any Federal subsidy. Is that correct?

Mr. MUSKIE. That is correct; and I wish to add this additional point. Henry Ford recognized the importance of the mass market. He directed his efforts not to producing the automobile for those who might afford it, but toward a mass market that might be created.

We need mass markets in other forms of transportation. We have mass markets in need of mass transportation facilities in our cities. The masses of our peoples—and that means markets for those who would profit from them—need something other than the SST. So from an economic point of view and a profits point of view, the SST is wrong.

Mr. PROXMIRE. In addition, is it not true that when we enter with a substantial subsidy for the SST for commercial and industrial efforts we substitute political judgment for the economic judgment of the marketplace and, therefore, care should be taken in making an economic judgment that it can be supported economically.

I think the Senator pointed out that the overwhelming majority of widely recognized and highly competent economists oppose the SST on strictly economic grounds. I would like to call to the attention of the Senator in connection with something that was said this morning that yesterday the Wall Street Journal published an article by Economist Allen R. Ferguson. He said the SST represents the first plane that would be brought into competition with existing planes that has a higher passenger mile cost than the planes it would replace. He points out how the only way this can be done is either by charging a surcharge on overseas flights and requiring people who take the SST to pay more, which probably would not be economically feasible, or to require subsonic jets to charge more so that the price will be raised to a point where the SST can compete. He comes to the conclusion that the reason why we have been able to increase the number of persons flying overseas flights remarkably in the last 20 years is that the cost has remained stable or has dropped, and there have been more and more efficient planes to fly at lower cost. If the SST charges more, it means we will have to charge more for people to fly overseas. He points out that this means there is not only the unsound economics at stake but also a diminishing number of passengers which means fewer jobs, and fewer planes produced because the SST is in competition with our subsonic jet. This argument makes sense and it should be given consideration.

Mr. MUSKIE. May I respond to that point because I think it needs embellishing. First, we are told in the course of this debate that there are a lot of answers we cannot get without further development of the prototype form of the SST, but the interesting thing with respect to the plane is, in terms of economics, the longer our involvement in it, the more unpromising it becomes. In other words, there is a stronger case today for a Government subsidy as the only way to build the plane than there was when the Government first became involved. It has been a steadily upward-climbing curve.

This matches the experience with the Concorde. I would like to place in the RECORD some observations on the Concorde experience given us by Jean-Jacques Servan-Schreiber, Member of the French National Assembly and former chairman of the influential L'Express. He said just the other day:

> Every single cost analysis from the beginning has proven to be wrong. The cost of the SST has multiplied here, as it will everywhere, four times the initial evaluations.

Then, on the question of reduced passenger capacity he points out that the maximum passenger capacity has been reduced from 134 to 110 or less, indicating its decreasing economic viability.

Range has been drastically reduced. With respect to maintenance cost estimates he states that they have risen sharply.

He said that on the economic operation, British Overseas Airways Corp. says it sees no way of operating the Concorde economically. BOAC estimates SST will cost twice as much to operate per seat mile as the subsonic Boeing 747; and Air France, the French national airline, says its evaluation of the Concorde is even worse than BOAC's.

So Schreiber said that the Concorde:

> Looks to us, on this side of the Atlantic like an industrial Vietnam.

He further stated:

> Now, the public eye is on the (Concorde) and what it sees is bankruptcy. The Rolls Royce disaster already looks small compared to the financial quagmire of the SST.

These are evaluations of the French and British SST by a distinguished Frenchman.

What is happening to its economic viability? The downcurve has been clear, visible, and steady; and as long as it continues the case for Government subsidy increases, and Government involvement rises. That is the clear economic history of the SST up to this point and it is based on the French-British experience, as well.

Mr. PROXMIRE. What the Senator said is most significant. In that connection I would like to add that by and large the argument in favor of the SST goes like this. If we do not build it, France, Britain, and Russia will; we want to be first; we do not want them to be first; we want to have a better plane than they have.

I understand that and it is an understandable conviction for us to want to be first. But that argument is shot full of holes by the point the Senator from Maine has documented so well.

The fact is that the Concorde is not competitive with the subsonic jet. It makes no sense for our airlines to buy a plane costing $25 to $30 million, and that will cost twice as much per passenger-mile as the planes they have. This fact simply eliminates the prestige argument and the competitive argument.

It is true, they say, the Russian T–144 is for sale. That was shot full of holes by a report in the Washington Post last Sunday, in which it was pointed out the Russians have never been able to sell the plane successfully; that if they sold their SST on the basis of using their political power and influence and providing superjets for our airlines, they would invest in a Russian plane at $25 to $30 million and not be sure whether or not spare parts would be available and not be sure of maintenance. The article also stated the Russians have never been able competitively to build a comfortable plane, and the T–144 is similar in every respect to the Concorde.

With respect to the T–144 we do not know exactly the wing length or the length of the plane because the Russians have not told us. However, it is essentially the same plane as the Concorde and the Senator from Maine indicated how the Concorde is not competitive.

Mr. MUSKIE. With all of this fuss and fury we should not take our eyes off of one point and that is that the purpose of it all is to save a few Americans 3 hours in traveltime to cross the Atlantic Ocean. That is the great national purpose that engages us in weeks and months of debate and disagreement on whether or not this piece of machinery will fly safely and economically. Whether or not it is that important to save a few Americans 3 hours traveltime across the Atlantic Ocean is the great burning question before the Senate today.

Mr. PROXMIRE. That is exactly correct. The Senator has destroyed the competitive argument. The question is: If we do not build it will the British and French take the entire market away from us? The Senator has demonstrated chapter and verse that this is not going to happen. If there is not a competitive argument it comes down to whether or not we want to spend a susbtantial amount of money to transport a few Americans overseas a little faster when we have the disgraceful record of mass transit and people cannot get to their destinations on time, and there are so many more urgent needs.

I thank the Senator.

Mr. MUSKIE. I thank the Senator from Wisconsin.

The PRESIDING OFFICER. Who yields time?

Mr. BIBLE. Mr. President, I suggest the absence of a quorum, with the understanding that the time will be charged equally to either side.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. PROXMIRE. Mr. President, I ask unanimous consent that the order for the

quorum call be rescinded. I yield myself 1 minute for the purpose of having the Senate receive a message.

MESSAGES FROM THE PRESIDENT

Messages in writing from the President of the United States were communicated to the Senate by Mr. Leonard, one of his secretaries.

REORGANIZATION PLAN NO. 1 OF 1971—REORGANIZATION OF CERTAIN VOLUNTEER PROGRAMS—MESSAGE FROM THE PRESIDENT (H. DOC. NO. 92–74)

The ACTING PRESIDENT pro tempore (Mr. TUNNEY) laid before the Senate the following message from the President of the United States, which was referred to the Committee on Government Operations:

To the Congress of the United States:

America is a nation unique in the political history of the world. More than any other nation, it is the sum of the energies and efforts of all of its people. The American tradition of voluntary involvement—of freely committing one's time and talents in the search for civic improvement and social progress—gives an extra dimension to the meaning of democracy. In the past decade, the Federal Government has built on this tradition by developing channels for joining the spirit of voluntary citizen service in America with public needs, both domestically and abroad. Many of these efforts have had marked success. But the circumstances in which these efforts were conceived have changed.

National and international needs have altered. The opportunities for voluntary service must be adapted and improved to meet these new needs.

Recognizing that private channels of voluntary action are a vital source of strength in our national life, I have supported the establishment and development of the National Center for Voluntary Action. The National Center is a private, non-profit partner in the effort to generate and encourage volunteer service. The Center works to promote the establishment of local Voluntary Action Centers, as well as to assist in the expansion of voluntary action organizations already in existence. It stimulates voluntary action by providing information on successful voluntary efforts, and it assists in directing those who wish to volunteer services to areas and endeavors in which their services are needed.

The National Center for Voluntary Action is functioning now to fill a vital need in the private voluntary sector. Now we must turn our attention to bringing government volunteer programs into line with new national priorities and new opportunities for meeting those priorities. We must take full advantage of the lessons of the past decade, and we must build on the experience of that period if we are to realize the full potential of voluntary citizen service. This is no longer a matter of choice. We cannot afford to misuse or ignore the considerable talents and energies of our people. In the coming years, the continued progress of our society is going to depend increasingly upon the willingness of more Americans to participate in voluntary service and upon our ability to channel their service effectively.

One matter of consequence to the problems of properly channeling volunteer services and expanding government's role in the development of volunteer resources is the proliferation of government volunteer programs. It was perhaps inevitable that these programs would be generated almost at random across the spectrum of government concern for human needs. This occurred in a period when the Federal Government was still attempting to define its relationship with, and its purposes in, the area of voluntary service. Now the role of government has been confirmed and its responsibilities and obligations are clear. Meeting these responsibilities and obligations will be a long, difficult, and challenging adventure. But it is an adventure we can look to with excitement and with the knowledge that the only sure source of failure can be a failure of the will of the American people. I do not believe it will fail.

The foundation for a greatly expanded government contribution to volunteer service already exists. Now we must consolidate that foundation in order to build on it. To accomplish this, I propose a reorganization of the present volunteer service system. Accordingly, I herewith transmit to the Congress Reorganization Plan No. 1 of 1971, prepared in accordance with chapter 9 of title 5 of the United States Code. Reorganization would bring together within a single agency a number of voluntary action programs presently scattered throughout the executive branch of the Federal Government. The new agency would be called Action.

COMPOSITION

Under the reorganization plan Action would administer the functions of the following programs:

—Volunteers in Service to America: VISTA volunteers work in domestic poverty areas to help the poor break the poverty cycle.

—Auxiliary and Special Volunteer Programs in the Office of Economic Opportunity: At present the National Student Volunteer Program is administered under this authority. This program stimulates student voluntary action programs which deal with the problems of the poor.

—Foster Grandparents: This program provides opportunities for the elderly poor to assist needy children.

—Retired Senior Volunteer Program: RSVP provides opportunities for retired persons to perform voluntary services in their communities.

—Service Corps of Retired Executives: SCORE provides opportunities for retired businessmen to assist in the development of small businesses.

—Active Corps of Executives: ACE provides opportunities for working businessmen to assist in the development of small businesses.

After investigation I have found and hereby declare that each reorganization included in the accompanying reorganization plan is necessary to accomplish one or more of the purposes set forth in section 901(a) of title 5 of the United States Code. In particular, the plan is responsive to section 901(a)(1), "to promote the better execution of the laws, the more effective management of the executive branch and of its agencies and functions, and the expeditious administration of the public business;" and section 901(a)(3), "to increase the efficiency of the operations of the Government to the fullest extent practicable."

The reorganizations provided for in the plan make necessary the appointment and compensation of new officers as specified in section 1 of the plan. The rates of compensation fixed for these officers would be comparable to those fixed for officers in the executive branch who have similar responsibilities.

The reorganization plan should result in more efficient operation of the Government. It is not practical, however, to itemize or aggregate the exact expenditure reductions which would result from this action.

Upon the establishment of Action, I would delegate to it the principal authority for the Peace Corps now vested in me as President and delegated to the Secretary of State. In addition, the function of the Office of Voluntary Action, now operating in the Department of Housing and Urban Development, would be transferred to the new agency by executive action.

Finally, I will submit legislation which would include the transfer of the functions of the Teacher Corps from the Department of Health, Education, and Welfare to the new agency. This legislation would expand authority to develop new uses of volunteer talents, it would provide a citizens' advisory board to work with the director of the new agency and it would provide authority to match private contributions.

GOALS

Although reorganization is only a step, it is the essential first step toward the goal of a system of volunteer service which uses to the fullest advantages the power of all the American people to serve the purposes of the American nation.

In pursuing this goal, the new agency would, first, expand the testing and development of innovations in voluntary actions. Health services, housing, the environment, educational development, manpower, and community planning are just a few of the areas in which we would act to accomplish more through voluntary service, and I intend to ask for additional funds and additional authority for Action to explore new approaches to these and other problems.

In the future, we are going to have to find new ways for more people to fulfill themselves and to lead satisfying and productive lives. The problems are of concern even now, but they must be put in perspective quickly because they will soon be upon us. I believe at least some of the answers will be found in volunteer service. Action would work to find those answers and apply them.

Second, there are many Americans who want to contribute to our national life through voluntary citizen service, but

who cannot serve full time. Their contributions must not be wasted. Volunteers in full-time service would work with part-time volunteers and the new agency would develop and provide opportunities for more people to give part-time service.

Third, Action would bring together in one place programs which appeal predominantly to younger Americans with those that appeal to older Americans, and would work to bring the energy, the innovative spirit, the experience, and the skills of each to bear on specific problems. The generations in America share America's problems—they must share in the search for solutions so that we all may share in the benefits of our solutions.

Fourth, Action would develop programs for combining foreign service with domestic service to accommodate volunteers interested in such an opportunity. I believe that young people in particular would be interested in the chance for this experience and would greatly benefit from it. I know there would be great value, for example, in permitting those who have served the needs of the poor abroad to turn their skills and experience to helping the poor at home, and vice versa. In addition, if volunteers are to reap the full benefit of serving, and if they are to be able to provide others the full benefit of their service, then we must open the doors to a fuller exchange of ideas and experiences between overseas and domestic volunteer efforts. These exchanges would considerably enhance the value of the experience gained in these endeavors by broadening the areas in which that experience is applied.

Fifth, at the present time valuable professional skills offered in voluntary service are too frequently limited by narrow categorical programs when their broader application is urgently needed. For example, the contributions of businessmen made through SCORE and ACE are provided only through the Small Business Administration. We know that the skills of business can be used in many areas where they are not used presently. Action would open new channels for service and would permit a more extensive utilization of business and other vocational and professional abilities.

Finally, by centralizing administrative functions of the volunteer services, the new agency would provide a more effective system of recruitment, training, placement of full-time volunteers than the present circumstances permit. It would provide a single source of information and assistance for those who seek to volunteer full-time service. And it would permit more effective management of services than is currently possible in the administration of volunteer programs, as well as the more efficient use of resources.

PRINCIPLES

In restructuring our system of volunteer services, we can accomplish the goals which I have set forth. But we must do more than this. We must restructure our thinking about volunteer services. We must determine how to use our volunteer resources to accomplish more than they accomplish now. We need an increased effort to stimulate broader volunteer service, to involve more volunteers, and to involve them not simply as foot-soldiers in massive enterprises directed from the top, but in those often small and local efforts that show immediate results, that give immediate satisfaction—those efforts that return to citizens a sense of having a hand in the business of building America. Part of our rethinking of this matter must look to the past so that we may properly meet the needs of the present and prepare for the possibilities of the future.

Volunteer service in poverty areas is a case in point. We already have considerable experience in dealing with the problems of poverty through the use of volunteers. Now we must build upon this experience and find new ways to use more effectively the volunteers presently serving in poverty areas, as well as in all other areas, and to stimulate new programs so that additional numbers of volunteers can assist in the solution of community and national problems.

In line with this effort to build on what we have learned, Action would function with particular concern for these basic principles:

—It would encourage local initiative, and would support local programs to solve local problems.

—Where appropriate, the new agency would assign volunteers to assist, and work under the technical supervision of other Federal agencies, State and local agencies or organizations, and private sponsors.

—The services of local part-time volunteers would be sought and supported in the effort to accomplish specific jobs. They would be assisted, when necessary, by full-time volunteers.

—Universities and colleges, State, city and private organizations must be engaged in the effort to broaden opportunities for volunteer service and under the new agency they would be assisted in these efforts.

—Finally, to meet the increasing need for skilled volunteers Action would give increased emphasis to recruiting and applying the skills of trained craftsmen and professional workers.

FUNDING

To insure that the new agency has the financial resources to begin working toward the goals I have outlined, I will seek for this agency an additional $20 million above the budget requests I have already submitted for the component agencies. These funds would be directed primarily to finding new ways to use volunteer services.

CONCLUSION

The early nineteenth century observer of America, Alexis de Tocqueville, was intrigued by the propensity of Americans to join together in promoting common purposes. "As soon as several of the inhabitants of the United States have taken up an opinion or a feeling which they wish to promote in the world, they look out for mutual assistance, and as soon as they have found one another out, they combine. From that moment they are no longer isolated men, but a power seen from afar...."

Though we have seen the success of Government volunteer efforts in the past ten years, I believe voluntary citizen service is still little more than a power seen from afar. In relation to its potential, this power is virtually undeveloped. We must develop it.

There are those today, as there always will be, who find infinite fault with life in this Nation and who conveniently forget that they share responsibility for the quality of life we lead. But our needs are too great for this attitude to be accepted. America belongs to all of its people. We are all responsible for the direction this Nation will take in the century ahead, for the quality of life we will lead and our children will lead. We are all responsible, whether we choose to be or not, for the survival and the success of the American experience and the American dream.

So there is little room for the luxury of making complaints without making commitments.

America must enlist the ideals, the energy, the experience, and the skills of its people on a larger scale than it ever has in the past. We must insure that these efforts be used to maximum advantage. We must insure that the desire to serve be linked with the opportunity to serve. We must match the vision of youth with the wisdom of experience. We must apply the understanding gained from foreign service to domestic needs, and we must extend what we learn in domestic service to other nations. And in all these endeavors, I believe, we can bring the power seen from afar to focus clearly on the problems and the promise of our time.

RICHARD NIXON.

THE WHITE HOUSE, *March 24, 1971.*

EXECUTIVE MESSAGE REFERRED

As in executive session, the Presiding Officer (Mr. GAMBRELL) laid before the Senate a message from the President of the United States submitting sundry nominations which were referred to the appropriate committees.

(For nominations this day received, see the end of Senate proceedings.)

FURTHER CONTINUING APPROPRIATIONS, 1971

The Senate continued with the consideration of the joint resolution (H.J. Res. 468) making certain further continuing appropriations for the fiscal year 1971, and for other purposes.

PRIVILEGE OF THE FLOOR

Mr. PROXMIRE. Mr. President, I yield whatever time he may require to the assistant majority leader.

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that George Will, a clerk to the Senator from Colorado (Mr. ALLOTT), be permitted to remain on the floor today during the roll-call vote.

The PRESIDING OFFICER. Without objection, it is so ordered.

QUORUM CALL

Mr. PROXMIRE. Mr. President, I suggest the absence of a quorum, and I ask unanimous consent that the time be taken equally from both sides.

The PRESIDING OFFICER. Without objection, it is so ordered. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. BIBLE. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. BIBLE. Mr. President, I yield 10 minutes to the distinguished Senator from Ohio (Mr. TAFT).

The PRESIDING OFFICER. The Senator from Ohio is recognized.

Mr. TAFT. Mr. President, I thank the Senator for yielding.

Mr. President, so much has already been said on all sides with regard to the issue before the Senate on providing further funds for the SST that it seems doubtful whether much can be added to it. As we all know, the paper industry is, unfortunately, one in which the manufacturing process involves pollutants of both air and water. I cannot help but wonder whether the paper battle through correspondence and piles of material on this issue have not already created more pollution than all that would be created by the completion and testing of the two prototype airplanes.

I shall not seek today to review the many pros and cons which have been presented, as to do so would surely be repetitive. Coming as I do from an area where the engine for the aircraft has been developed and having even tested the throttle of that engine myself, I may not be viewed as a impartial adviser for the Senate on this issue. There can be no doubt, however, that it does mean a great deal economically to the country and those involved in its development and future production. Arguments, of course, can be made that other unconnected economic stimulation and development might create the same or greater effect, but none could avoid the disruption bound to occur if the program is abandoned, as it seems extremely likely to be if this measure is not passed by the Senate today.

What I would like to talk about from an economic point of view, however, is the longer impact on the Nation generally. I am one of those who, along with a majority of the Congress, have felt that international trade should be encouraged and stimulated and that the lowering of tariff barriers is desirable from the point of view of both the consumer and the producer in America.

I have also felt that increased international trade is desirable not only from the point of the United States but also from the point of view of the world and the prospects of world order in the future. A concomitant of such an approach, however, would seem to be that the United States must remain in a competitive position with regard to manufactured products, even while maintaining a higher standard of living than its industrial competitors. This puts us in the sometimes difficult position of maintaining our status in world trade in manufactured products only by utilizing the background of skills, innovation, and productive capacity where we have definite advantages. Our practical domination of the aircraft industry on a worldwide basis, estimated at 80 percent, is a prime example of an area in which we have excelled, and, given reasonable encouragement and competence, we can continue to excel.

A negative decision on processing with the SST would leave this field of aircraft development and production to others who are well on their way; and if you do not believe it, I refer you to the February 8 issue of Aviation Week describing the tremendous progress of the Concorde aircraft development, certain extracts from which magazine I shall attach to my remarks.

I would, therefore, suggest to all who feel strongly that we should continue to seek freer world trade and reduce tariff barriers for all manufactured products, that the decision to phase the United States out of the foremost areas of aircraft development, could be one with most serious consequences and could be a major factor in a wave of rising sentiment for protectionism for American industry.

The regrettable thing about the SST debate has been the tendency of both sides to see the issue as all black or all white. I think we must honestly recognize that there are many valid and important arguments on both sides of this question. On balance, however, I think the case for continued funding through the prototype phase of this project is sound.

Environmental concerns must be paramount for all of us. Testimony indicates, however, that the SST would produce less pollution per passenger-mile than any other mode of transportation. With respect to the possibilities of skin cancer, we have presently hundreds of supersonic flights by military aircraft which have produced no detectable effects upon the upper atmosphere that would be related to an increase in any health hazard.

And it is because I am vitally concerned about the environment that I want to keep control over the design of the SST in American hands so that we may make it conform to the rigid environmental standards that we shall set as a nation. It is argued that we can simply keep out SST's made by other nations through the imposition of standards which are inapplicable to any American-made airplane. If we did so, we could have a diplomatic problem of the first magnitude. Such a policy would be viewed as a trade restriction rather than the genuine environmental concern that it would be.

Those of us interested in the environment should remember that we are considering today only the development of two prototype planes. For instance, these planes will enable us to make determinations on the important question of landing and takeoff noise levels.

It is correctly argued by a great many Americans that there are other vital areas where these dollars could be spent to improve our society. With this I entirely agree. The fact is, however, that we have presently invested $865,875,000 in this project which will be repaid if the SST is a commercial success. If we terminate this project the Government will have to pay approximately $200 million more than we have already spent just to cover possible governmental liability under the existing program. If we continue with this project the taxpayers will be repaid.

It is contended that the financial plight of the airlines will not permit them to purchase these planes. This argument is negated by the projections, and by the $81 million already invested in this project by the airlines and the orders for 122 SST's which are already on the books.

This measure is not simply a WPA project. If it were, there are many cheaper ways of keeping these workers employed. Nor is this simply a scheme to allow the very rich to get to Europe in 3 hours or less. It is a project which at this junction makes good sense from the standpoint of the American taxpayer whose investment can be repaid and from the standpoint of the environmentalist whose concerns can be best protected if the control of SST's is left in American hands.

I ask unanimous consent to have printed in the RECORD the article and extracts from the February 8 issue of Aviation Week, to which I previously referred.

There being no objection, the article and extracts were ordered to be printed in the RECORD, as follows:

[From Aviation Week & Space Technology, Feb. 8, 1971]

CONCORDE IS COMING

The Anglo-French Concorde supersonic transport has emerged in 1971 as a new factor in the international airline equation for the next decade. After more than a decade of technical development, it has flown through its crucial flight test envelope to prove that the concept of a supersonic transport is sound and its increased productivity offers an interesting profit potential.

The flight test program of the French prototype 001 and its British counterpart 002 during the winter of 1970–71 has proved that the production versions of the Concorde can deliver their guaranteed payloads over nonstop ranges including London and Paris to New York and key transpacific stage lengths. A solid technical base for Concorde production has been demonstrated by the initial flight test program. A variety of airline pilots and safety board examiners have flown the Concorde prototypes through the supersonic regime and found no special handling problems even with simulated double engine failure. The recent incident of an air intake ramp door tearing loose at Mach 2 and going through the Olympus engine without any further incident than an engine shutdown and a three-engine return to base is an example of both the Concorde's durability and docility.

Much detailed test flying remains to be done to isolate the many problems that develop only with experience in the air. When it enters airline service in the 1974–75 period, Concorde will be the most thoroughly tested transport in history. It will have amassed nearly 4,000 hr. of flight testing including certification to U.S., French and British standards and 1,000 hr. of actual route flying by airline pilots. BOAC, Air France and Pan American pilots will probably begin this route simulation this spring using the prototypes to get an early start on

adapting Concorde's performance to airline patterns.

Next step will involve working out the detailed equation of fares, utilization and passenger appeal that are a necessary preliminary to the firm contract negotiations between the Concorde manufacturers, British Aircraft Corp. and France's Aerospatiale, and the key bellwether airlines, BOAC, Air France and Pan American for the Atlantic and Qantas and Japan Air Lines for the Pacific. This should begin by summertime.

Concorde was the first supersonic transport program to take shape more than ten years ago. It triggered both the Russian and American efforts to get into this market. This has been both an advantage and a problem for Concorde. By using basic, well-proved state-of-the-art aerodynamics, propulsion avionics and materials, it built on a sound technical base. But in the decade of Concorde development, technology has advanced rapidly in all areas, opening wide possibilities of improvement for a second generation SST.

Similarly, Concorde's early start has given it a significant lead over its most potentially serious commercial competitor, the Boeing 2707. At the very time that U.S. political resolve to back its SST program is wavering, the Anglo-French governmental support for Concorde appears to be gathering strength.

The gap between Concorde's entry into airline service and the appearance of a U.S. supersonic transport on the market is an extremely significant factor in Anglo-French economics. For the longer the Concorde enjoys a western world monopoly on supersonic service on the Blue Ribbon high-density routes across the Atlantic and Pacific, the more aircraft its makers will sell and the more money its airline customers can harvest from its slender cabin. At the moment, a solid five-year gap is firming and any further slippage of the U.S. program would provide additional bonus for Concorde.

Concorde technology was also pretty firmly committed long before the environmental issue arose and adapting to the operational temper of the times will pose some problems. The sonic boom is the least of these. Supersonic tests over a precisely instrumented range in western England have dispelled many of the boom superstitions with facts. The historic cathedrals are undisturbed by Concorde though the measuring instruments showed alarming vibration from their local organ peals.

A cow may have been frightened by a Concorde boom into an unwarranted romp that aborted its calf, but thunderstorms, trains and a small boy throwing stones could have produced the same result.

Nor will Concorde emit a sonic boom over any land on its currently contemplated airline routes. Heavy smoke trails from the early Olympus engines are unacceptable and are being eliminated in the production aircraft. Less amenable to solution is the ground sideline noise from the afterburning Olympus. Palliatives applied to date leave Concorde ground noise somewhat above currently acceptable standards.

Nevertheless, with all of its anticipated and unanticipated operational and economic problems, Concorde is now coming on strong as a contender for the Blue Ribbon traffic of the mid-1970s and already is the strongest challenger to American domination of the international transport market in history.—ROBERT HOTZ.

[From Aviation Week & Space Technology, Feb. 8, 1971]

CONCORDE TEST DATA CONFIRMS DESIGNERS' PREDICTIONS

Anglo-French Concorde supersonic transport will enter airline service with a payload of 30,790 lb. from Paris to New York, with full fuel reserves. Engine improvements scheduled for the 41st airplane onwards will raise the payload to 33,670 lb.

The figures have been confirmed by an intensified, integrated flight test program using the French and British prototypes at speeds to Mach 2 and beyond. Previously predicted performance, often viewed with skepticism by potential customers and government officials responsible for the estimated $1.98 billion research and development bill, has been achieved and often exceeded.

Payload figures are now being presented to 16 airlines holding options for 74 Concordes. They also are being told:

Concorde will cost $23.8 million based on 1970 prices. With airframe and engine spares, this figure will rise to a unit cost of about $30 million.

Down payments of 5% will be required on contract signing, and 50% sought prior to delivery, though airline resistance to this high a level is probable. Option payments will be applied to this sum.

Manufacturers are retaining a payload figure of 4,000 lb. as a reasonable margin to allow for possible degradation in performance of the production aircraft between now and entry into service.

M. G. Wilde, British Aircraft Corp. chief engineer-aerodynamics, said that the in-service figure, is based on a high degree of confidence and on an operating empty weight of 167,250 lb., a figure that has shown a small rate of increase in development of the airplane.

Weights are based on the U.S. Federal Aviation Regulations Part 121.648 mission: Paris to New York in summer, 3,203 naut. mi., ISA plus 5C, with a 13 kt. headwind and a 30 min. hold at 1,500 ft. Additionally, there is a noise-abatement climbout, a 250 kt. restriction below 10,000 ft., and a 200-naut.-mi. still-air diversion at 30,000 ft.

Henri Ziegler, president of Aerospatiale, said contacts with airline customers since flight test data began to match and improve on predictions has resulted in a marked change of attitude, to optimism that Concorde will actually enter airline service in 1974.

Fleet integration problems of the Concorde should be tackled as a major priority in 1971 and 1972, he said, and equal priority should be given to establishment of fare levels.

Some airline executives are worried that the Concorde's operating costs will be double those of subsonic jet transports, such as the Boeing 707 and 747, and that a 100% increase in costs may mean a 100% increase in fares.

E. H. Burgess, BAC Concorde sales director, allows that Concorde operating costs will be higher than subsonic jets, but maintains that a fare can now be based on present first-class yields to determine potential earnings. Breakeven load factor on a single-class 110-seat version—which the manufacturers are now beginning to refer to as a superior class configuration—could be as low as 37%, he said.

Burgess added that a first-class fare minus 10% for dilution would result in a breakeven load factor of 42%. He predicted that by 1975, a 108-seat single-class airplane could have a breakeven load factor of 30%.

Bernard Darrieus, Concorde sales manager for Aerospatiale, said operating costs and breakeven load factors have been computed using two cabin configurations—108 and 128 passengers—according to the standard ATA-cost formula and based on a sales price of $24 million.

On the North Atlantic with 128 passengers in an all-tourist arrangement, direct operating costs are $2.66 per naut. mi. and seat-mile costs are 2.08 cents per naut. mi.

Using total aircraft operating costs, including intangible indirect operating costs, seat-mile costs are 3.32 cents per naut. mi. In comparison, a Boeing 747 seat-mile cost computed with direct and indirect costs, and seating 350 passengers, is 2.4 cents per naut. mi.

Two firms doing economic studies used a tourist fare average of $208 London to New York, for a breakeven load factor of 48%, or 61 passengers. This is based on a fare yield diluted to 90% to take into account non-revenue passengers, agent fees, fare variations due to family rates and also excursion rates.

At a configuration of 108–112 passengers, direct operating costs would be $2.64 per naut. mi. and costs per seat naut. mi. would be 2.4 cents. Using the present first-class fare of $306.70, minus 10% dilution, the breakeven load factor would be 37%.

The direct costs are about what airlines have been expecting—70% above those of the Boeing 707. The indirect cost figure in these estimates is 60% above the direct. Since indirect costs vary widely with aircraft size and carrier, this level is considered reasonable, although one carrier said it would probably use 75–85%.

With a considerable portion of the Mach 2 data now analyzed, Wilde said results show:

Flight test measurements are of uniformly good quality. They show little statistical scatter in results from Concorde 001 in France, and 002 in Britain.

Performance measurements show a significant improvement over previous predictions in the critical cruise configuration.

Olympus 593 engine flight performance agrees with predictions from ground test and the Avro Vulcan V-bomber flying testbed.

Wilde said there is no area of aerodynamic handling or drag that is a matter of concern to the manufacturers. Main task now is to relate test data from the Concorde prototypes to preproduction aircraft, where nacelle sealing is expected to produce lower drag.

Flight tests in subsonic cruise, which is critical in view of large amount of fuel consumed, have shown that prototype optimum performance is close to the production aircraft lift coefficient range. Analysis has shown that no drag rise effects can be discerned up to at least Mach 0.95. In some cases, optimum specific range at subsonic speeds is about 1% better than predicted.

Using present predictions, Wilde said payloads and weights should follow this pattern, considering that 4,000 lb. is being retained by BAC and Aerospatiale for possible degradation in preproduction and production versions not yet flying:

Engine version	Mk.603	Mk.612	Mk.621
Nozzle	TRA	TRA	TRA
Operating (pounds):			
Empty weight	165,250	165,250	165,250
Payload	30,790	32,730	35,670

Commenting on the payload-versus-drag results, Sir George Edwards, managing director of British Aircraft Corp., told Aviation Week & Space Technology:

"There are no corners of the Concorde envelope yet explored that have not been put right, and we just do not see any technical problems that could hamper the effort."

Actual contracting with the customer airlines is a major problem. Despite the large amounts of development money involved, there will be no big profits and, as Edwards put it: "We have to ensure the continuation of this firm." BOAC now has a draft contract for initial negotiations.

"Right now, we figure we have a working airplane that will provide a 15–16% return on capital at a 60–65% load factor," he said. "The airline that gets the mixed supersonic-subsonic fleet requirement right is really in business."

Engine noise will continue to be a worry to the manufacturers, considering what Edwards calls "rubber rules" that call for legislation on decibel levels in a number of di-

rections to meet varingly defined environmental requirements. Concorde is being guaranteed to airlines and government authorities as being no noiser than the worst present subsonic jet case—a Boeing 707-420 fitted with Rolls-Royce Conway engines—and has an in-service target of 112 epndb. maximum on climbout, approach and landing.

Sideline noise will be on the order of 113 epndb.

THE SST: PUBLIC MONEY—PUBLIC PRIORITIES

Mr. McINTYRE. Mr. President, I oppose the continuation of funding for the supersonic transport prototype development program. After over a year of hard work, I cannot conclude that continuation funding is in the public interest.

Before presenting my reasons for this decision, however, I should like to commend the Senators from the State of Washington (Mr. MAGNUSON and Mr. JACKSON). I know the tremendous burden that they carry as representatives of a State largely dependent on the aircraft industry. I know how deeply they are affected by the unemployment they see among their constituents. These are sensitive men. They care greatly for their State. They have fought the good fight, and I commend them. Theirs was an honest and human battle. They have my respect.

I have considered, as closely as possible, the various arguments in favor of this project. Its proponents have contended that this aircraft will eventually provide a great deal of employment in an industry that is now plagued by unemployment. I have been told that it will favorably affect our balance of payments. I have been told that it is efficient and marketable. And I have been told that it will be environmentally sound.

Yet, in my analysis of these arguments, each of them has proven highly speculative and likely to be defective in the real world. Let me point out that my considerations have centered on one basic issue: Is this an appropriate allocation of already scarce public funds and is it likely to produce a public goal worthy of priority treatment in our range of national needs I conclude "No."

At the heart of the matter is the question of why this project must be funded at the taxpayer's expense. The industry has repeatedly stated that the SST will be a better aircraft than those of other nations. They have propounded the theory that it is a guaranteed money-maker for the airlines. And they have promised that environmental problems can, and will, be solved before commercial production begins.

If these arguments are true, I question why the aviation industry cannot secure private financing for such a rosy investment. Certainly private bankers are now faced with a shortage of prime borrowers—as witnessed by the continual decline in the prime interest rates.

I can only conclude that their case has not been made to the private interests or that it has proven defective. Former Chairman Arthur Okun of the President's Council of Economic Advisers stated this argument succinctly in a recent statement to the Joint Economic Committee:

By standards of the private financial marketplace, SST is a big project, but not an indigestible one. I frankly do not know whether the companies involved in SST development have made a serious effort to obtain private financing. If they have not, the Congress should send them out to do so. If they have, and have failed, then they must not have been able to demonstrate to the investment bankers of this nation that SST is going to be technically and commercially sound and that it is going to meet essential environmental standards. In the latter event, the verdict of the investment company should be decisive. Try as I may, I can find no reason, and I submit there is no reason, to justify overruling the verdict of the marketplace.

This and similar statements were echoed by 10 of this Nation's leading economists, including the conservative economist Milton Friedman, as they parried the economic thrusts of the industry. Throughout this debate, I have not heard mentioned any solid reason for public financing of this project.

One such argument related to the balance of payments. Yet, the SST would not help solve an existing problem in this area. Testimony from within the administration, and without, has indicated our balance-of-payments situation is sound, that it has not been a material factor in our economic planning for several years, and that it is unlikely to be a problem in the foreseeable future.

I have also heard proponents claim that there must be public funding lest our Nation lose its superiority in international aviation. This assumes too much. We faced a similar situation with the advent of jet airline production in the early 1950's. Then, as now, we were behind foreign producers. Then, as now, the industry sought to feed at the public trough. Then, as now, the arguments were not compelling. Congress refused to provide a public subsidy at that time; yet within 10 years, American aviation had cornered 85 percent of the world jet aircraft market. If the SST, anybody's SST, were as sound a gamble as the industry suggests, I feel certain that private sources would be most willing to reap the profits.

Beyond this, I would like to address myself to a related argument. The industry has vociferously claimed that we must provide public funds because the governments of Russia and France are financing competing projects. Neither of these nations, however, have the private industries nor the private capital to undertake the project otherwise. Yet we do.

At the same time, the immense cost of these foreign projects and the consequent drain on those governments' limited resources dictate that this will be a one shot deal. The U.S. industry, on the other hand, now has several families of marketable aircraft on which to rely—aircraft whose markets will be substantially unaffected by the SST—and U.S. industry has the know-how and the capital to undertake research and development for new generations of marketable aircraft in fields like short-haul aviation. This market for instance is untouched; and may be the real, future world aviation market.

I am not convinced that there is a bona fide market for the SST at this time. Much has been made of increased efficiency due to its speed. Yet, BOAC and Air France, two airlines which jumped in early to purchase options on the Concorde, have now indicated that they doubt whether it can be operated profitably. In the case of BOAC, it is unlikely that these options will be canceled, however. BOAC is a government-owned airline. And I am aware that American airlines have experienced declining enthusiasm for the SST along these same lines.

We must remember that the cost of this aircraft to the airlines was originally projected at around $40 million. Now it looks like the cost will be between $50 to $60 million per copy. Consider the irony of the Government having to subsidize the private purchase of privately produced aircraft financed with public funds. The American taxpayer deserves better than this.

The industry also contends that the Government stands to recoup its investment as soon as the aircraft goes into commercial production. With an investment originally projected at $1.3 billion for the Government share, over 500 of these aircraft would have to be sold before the public gets a return on its investment. Even the most optimistic analyst could not foresee this happening before 1985 or later, if at all. And at what additional cost to the taxpayer? As each of us has known over the past decade, the dollar has a way of shrinking mightily over this length of time.

I cannot find many industry spokesmen who are genuinely optimistic about selling a sufficient number of SST's for the public to recoup its investment. With the costs of government continually rising at all levels, can we ask the taxpayers to undertake such a risk?

Then there is the employment question. Estimates have varied on the amount of employment actually involved in consideration of the SST. Realistic estimates of the direct employment impact indicate that continuation of the program would provide 13,000 jobs in an industry with several hundred thousand unemployed. Another 80,000 or so jobs might be provided at some time in the next decade if the aircraft goes into commercial production; and if sufficient aircraft can be sold. These questions are highly speculative, however, and I find myself hard put to feed that speculation with $290 million of the taxpayer's money this year and prospects for at least several hundred million more by 1975. I find this especially hard to take when I see that the administration requested only $106 million for air pollution control last year and only $85 million for consumer protection. I find it hard to take when I find that manpower retraining programs and mine safety programs are still underfunded. Also, I find it hard to take when I consider that the administration is not asking for any further appropriation for rural sewer and water systems this year. If we were really concerned about unemployment, we would use this money for needed projects de-

signed to produce jobs now, not a decade from now. The eminent conservative economist, Milton Friedman, addressed himself to this issue in a recent statement to the Joint Economic Committee, stating that—

> The so-called employment effects involve a fallacy of composition. The funds spent on the SST will have to come from somewhere. Extra employment on the SST will be offset by smaller employment elsewhere. Our objective should not be jobs but productive jobs and that objective is best achieved by the test of the market not by government subsidization of leaf-raking jobs—and if the SST is not commercially viable then jobs in producing it are the economic equivalent of leaf-raking.

While I am not in complete agreement with Friedman's harsh comparison with "leaf raking," I do feel that the subsidizing by the Government of projects should have a direct and measurable public purpose. To provide jobs for a few now, with speculative prospects for more employment a decade from now, seems poor justification for an infusion of public funds at this time of national need.

I am also concerned with identifying the ultimate public purpose to be served. This aircraft will provide more speedy transportation for transoceanic flights only. Now I ask my colleagues whether or not the general public has any stake in faster flights to another continent? I think not. At present, transoceanic flight is adequate, if not far better than any of our domestic transportation systems. There may be a benefit for the upper-echelon businessman or the regular international traveler in terms of time-saving. But they are not providing the funds for this aircraft; you and I and the average taxpayer are. When is the last time that the average American thought of going to Europe? When is the last time that the average American taxpayer thought it worth extra money to save 3 hours flying time over the Atlantic?

I must emphasize that it is crucial to me to see in this expenditure of funds some benefit to the taxpayer measurable by the elimination of a current national problem. Yet, reasonable figures show that only 3 to 6 percent of American taxpayers have any reasonable expectation of ever using the SST. And those that can expect to, can anticipate paying a fair premium over the current prevailing fares on other aircraft. This seems a poor deal to me for the taxpayer in my State who works hard all day, everyday, and may travel only as far as Boston or New York for most of his life. I must conclude that this expenditure is a poor prospect for the American taxpayer and a gross misallocation of public funds. Again, I reiterate that if this aircraft had the prospects that the industry claims for it, I feel certain that private financing could be arranged.

At the heart of my judgment, is the suspicion that seeking public funds offered the industry the path of least resistance and greatest convenience. I mentioned earlier that the original estimate for prototype production was for $1.3 billion in Government funds. Now, informed sources indicate that current problems are such that the Government's share of prototype development costs could go as high as $3 to $5 billion. As a member of the Senate Armed Services Committee, I am quite accustomed to this type of accounting. But I believe from past experience that the chances are extremely strong that the Government's—the taxpayer's—share of this project could well reach $5 billion before we are done. And I cannot stand aside and see this happen. Nor can I justify such a risk in terms of other vital national priorities.

Let us consider for a moment, some of the real transportation problems that this Nation faces. Rural America is dying. Despite our past efforts and our belated attempts to stem this tide, we have not yet provided those transportation services which would make it reasonable for most industries to locate in rural America: Industries that are absolutely essential in its revival. I can speak from the experience of years of frustration on this point. One hundred years ago, my own State of New Hampshire was serviced by an efficient rail system providing both passenger and freight services. Yet today, there is not one passenger train left in the State; and I am now in the process of fighting several petitions before the ICC to eliminate some of the few remaining freight lines.

Now modern technology has provided other modes of transportation to counter this loss, as Senators know; yet New Hampshire is not serviced, to this day, with a completed north-south interstate highway or by any primary highway running from east to west in the entire State. What alternatives are there for the shipper or for the industry that New Hampshire so dearly hopes to attract? Very few. Yet, New Hampshire is a State with much natural beauty. Many feel that its tourist industry would compensate for a lack of new industry. Yet, tourism is dependent on the roads that we do not have. Some say that air transportation might alleviate this lack; yet, we may be fortunate at the year's end to be left with any substantial certificated air service at all. And even if our air service pattern improves, New Hampshire is faced with an enormous capital expense in furnishing adequate airports.

The airport at Lebanon, for instance, was eligible for a grant over $50,000 under the Airport and Airways Development Act this year. The necessary processing had been completed when Lebanon had to withdraw its application because it could not raise the matching funds. So today, one of the 3 year-round certificated airports in the State is without adequate taxiways. Only a few years ago, this airport was the scene of a tragic air crash. The cause, lack of an ILS system. It was only through the consistent efforts of my distinguished colleague and cherished friend from New Hampshire, Senator NORRIS COTTON, that this system, basic to the operation of any modern airport, will finally be installed this summer.

I could go on and on; but the points that I have raised are relevant to this consideration. We have already spent over $860 million in public funds for the SST. We are now asked to spend at least $500 million, and possibly as much as $4 billion more, over the next few years to develop two prototype aircraft of benefit to very few. Yet, most States of the Union, like New Hampshire, face a genuine crisis in both short-haul transportation and mass transportation. Could not this money be better spent in these areas?

Congress authorized $400 million for mass transportation research and development for the current fiscal year. But the administration asked only $200 million and only reluctantly accepted more for this vital work. Yet these funds were designed to fill a vital public need of paramount importance to the economic and social well-being of millions of American taxpayers. Parsimony for such programs coupled with spendthrift provisions for the SST, a project that might best be undertaken privately, strike me as patent nonsense. I cannot agree.

Again, I return to my example of the State of New Hampshire. Under the conservative estimate of a Federal allocation of $1.3 billion for the SST, an amount of $4.3 million will come from the pockets of New Hampshire taxpayers. What can they expect in return? About all that can happen at best will be the preservation of a miserable status quo in our transporation situation. At worst, the current trend can continue, leaving us with almost no transportation base.

And if the costs of the Government escalate to the level that my experience tells me they will, New Hampshire's share of the boondoggle will amount to over $16 million. Now our State is currently in a fiscal crisis. We are faced with a multi-million-dollar deficit. Yet, that $16 million in SST funds could eliminate the deficit almost completely in the hands of New Hampshire taxpayers. And yet, they can gain nothing from prototype production of the SST.

I can find no justification, either in terms of real national need or in terms of the welfare of my constituents, which would compel me to approve this expenditure of public funds. There are too many needs, including many in the field of air transportation, that would require these funds for me to allocate them to this project.

I am not saying that the SST will not fly; I believe that it may. But I prefer to see its costs borne by private interests where they belong. The Government then will be free from the real risk of financing an unsuccessful venture and will be able to contribute to the advancement of more legitimate public interests.

In conclusion, let me quote the words of the president of one of the world's major airlines:

> Finally, if our country must make a choice between appropriations for improvements of our airways-airport systems or furthering the development of the SST, then there is no question that airways-airports must be the choice. In summation, the provision of completely adequate airways and airports in this country must take precedence over any other consideration if the vigor of our economy is to be maintained.

The PRESIDING OFFICER. Who yields time?

QUORUM CALL

Mr. BIBLE. Mr. President, I suggest the absence of a quorum, and request that the time for the quorum call be taken equally out of the time allotted to both sides.

The PRESIDING OFFICER. Without objection, it is so ordered. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. PROXMIRE. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. PROXMIRE. I yield such time as he may require to the Senator from Michigan (Mr. HART).

Mr. HART. Mr. President, I thank the Senator. I shall speak only very briefly.

As we approach this vote, Mr. President, I join with the many others who have thanked the able Senator from Wisconsin for giving focus and direction to the effort to, if not establish a claim to sanity in all things, at least a claim to sanity with respect to the allocation of the resources involved in this particular question.

The symbolism of the supersonic transport is vast. Quite aside from the question of environmental consequences—indeed, even aside from the raw question of economics, even if these two issues were resolved in favor of the ship—there is a very broad feeling in this country that there are other things which will work and that there are other things which will not damage the environment which are vastly more needed by a majority of Americans than this ship. I suggest that perhaps on that basis alone we should get busy shelving this ship.

If the day comes when we have met the problems of the man who does not have the money to get a ride in any kind of airplane, even though he has worked all his life, and if we have arranged surface transportation in urban centers that permit him, with his money, to get to the airport, if we do a lot of these things, then we can look to the shelf and ask ourselves if it is now time to take up again the development of a ship which will serve relatively few, in any event.

Mr. President, all has been said that possibly could be said on this issue, not just in the days immediately past but also in the months and the several years over which time it has been before the Senate. I found an editorial in yesterdays' edition of the Detroit Free Press which itself is very brief and yet, in its brief scope, contains, I think, each of the points which would persuade us, in a few moments, to vote "no" on the further funding of this ship. I ask unanimous consent to have the editorial from the Detroit Free Press, published in its issue of Tuesday, printed in the RECORD.

There being no objection, the editorial was ordered to be printed in the RECORD, as follows:

THE EVIDENCE SAYS NO

The U.S. Senate is no place for the fainthearted this week, as factions pressure and maneuver their way toward a do-or-die vote on continued funding for supersonic transport (SST) development.

Doubtless the decision will be difficult for some of those senators not yet deeply committed to one or another side. Most of the hotly debated questions remain as unclear as ever. On both sides of the issue, Congress has heard more than it can possibly digest from that popular breed of Washington cat, the expert whose technical testimony confirms social and political beliefs.

But certain things can be known. Clearly, the environmental threats posed by the SST are real enough to be of concern to many thoughtful, knowledgeable men. In the realm of international business, the competitive threat from the European air industry simply has not materialized as predicted.

And perhaps most important for the Senate this week, it is possible to gauge whether the country at large is eager to shoulder more than three-quarters of the financial risk in this expensive venture. By any reasonable standard, the answer is no. After all this time and all this wrangling, proponents can demonstrate no clear need, no firm demand.

This political truth was evident in the House of Representatives a few days ago. Bound by new procedures to put themselves individually on record, House members turned out in vast numbers and declined to commit any more public money to the project.

SST backers are saying that the plane will be built anyway, and already are discussing methods of independent financing. That is well enough, if environmental dangers can be firmly controlled.

But the question for the Senate is what the federal role shall be. The message from the House—both in the new representatives elected in November and in the behavior of veterans newly on record—is that much of the country feels there are better ways to spend the money, better ways indeed to move toward the aerospace eminence the SST is said to represent.

The call to the Senate is as clear as any call has been in this debate. The call is to vote no.

Mr. BIBLE. Mr. President, I yield such time to the distinguished Senator from West Virginia (Mr. BYRD) as he may desire.

The PRESIDING OFFICER. The Senator from West Virginia is recognized.

PRIVILEGE OF THE FLOOR

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that Mr. Norman D. Dicks, clerk to Senator MAGNUSON, be permitted the privilege of the floor during the yea and nay vote today.

The PRESIDING OFFICER. Without objection, it is so ordered.

QUORUM CALL

Mr. BYRD of West Virginia. Mr. President, I suggest the absence of a quorum and ask unanimous consent that the time be equally divided between both sides.

The PRESIDING OFFICER (Mr. BURDICK). Without objection, it is so ordered, and the clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. PROXMIRE. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. PROXMIRE. Mr. President, I yield 15 minutes to the Senator from Alaska.

The PRESIDING OFFICER. The Senator from Alaska is recognized for 15 minutes.

Mr. STEVENS. Mr. President, I thank the Senator from Wisconsin for showing his usual generosity in yielding to me in spite of the fact that I oppose his position on the SST.

Mr. President, we have been inundated by statistics and fears, facts and apprehensions, data and feelings. The supersonic transport, commonly known as the SST to us all, has received perhaps more attention and fanfare, and subsequent notoriety, than it justly deserves. I am not here to delay this body's consideration of this issue or whether or not to continue funding the supersonic transport.

All of us are readily familiar with the key positions on each side of this current issue. I would, however, like to submit for the record the findings of the Ad Hoc Committee on technology assessment of the supersonic transport program, whose findings, I might add, were endorsed by the executive committee of the American Institute of Aeronautics and Astronautics, the AIAA.

First, with respect to the prototype aircraft, all stated performance objectives can be met without recourse to as yet unknown technology and with as high a confidence level as on any previous development program prior to flight tests. These objectives include flight performance, takeoff and landing, propulsion system efficiencies, and environmental considerations. Second, given the added data base generated during the prototype program, a technically successful production SST can be built. Third, full completion of the prototype phase of the program is estimated to require an additional net Government investment of about $250 million over approximately 2 years above the program cancellation costs. This amount of money appears warranted in view of the potential economic return of the follow-on, privately financed production program.

Fourth, a "stretchout" in prototype funding at this time would cause extensive immediate cost increases in the prototype program. The resulting delay in production aircraft market penetration would curtail total revenues, reduce new job opportunities and impair favorable impact on international balance of trade. Fifth, abandonment of the U.S. SST program could lead to ultimate takeover of the United States traditional civil aircraft sales dominance by foreign interest. Sixth, the production of SST will meet the demands for increased intercontinental air travel during the 1980's, while providing a substantial gain in productivity. Seventh, the production SST is the first aircraft development to be dominated by environmental considerations, and its critics have made a valuable contribution in this regard. As a result, the SST will meet or better all engine noise specifications. Lastly, the SST prototype flight-test program provides environmental research investigations which will determine necessary stratospheric data and measure the environmental effects of future production SST operations. The two prototype SST's will not produce any equilibrium environmental changes.

We are now familiar with the arguments of productivity, Government investment and the return on costs, the arguments over national priorities, the balance of trade, noise, sonic boom and solar radiation, and general pollution

problems, as well as the arguments about jobs and dollars.

We all know that the United States now imports more dollars than it exports of such things as ships, movies, cameras, optics, consumer goods of various kinds, as well as steel, food, feed, beverages and automobiles. Our greatest export item is now aircraft engines and parts. It has been pointed out to me that one SST sold overseas will offset the import of 20,000 German Volkswagons or 200,000 Japanese TV sets. We all know now too, that the Russian TU–144 and the French-British Concorde are already flying. So it becomes now a question of when and perhaps whether Americans will fly a supersonic transport of their own making, rather than one made by Russians or French or British.

The Russian SST is scheduled to begin commercial flights to India in October of this year, which is much sooner than anyone predicted a few months ago and at least 3 years of the SST service planned by the English and French Concorde. When will an American SST even be ready for test flying let alone scheduled service? The American SST as we know is designed, not as a technological showpiece, although it is that, but as a soundly marketable product, an assured profitmaker and foreign exchange earner for Uncle Sam over a period of many years. I do not need to belabor you about these points, because they have all been heard before in one form or another.

The most familiar arguments, however, have revolved around the issue of environmental pollution. We are not discussing whether or not to pollute further this world of ours. No sensible American would argue in favor of pollution. If supersonic travel is indeed hostile to the environment, it should not be encouraged. What we are really talking about here is completing the construction of two experimental SST aircraft already partially built. They should be completed in order to answer all of the questions that cannot be satisfactorily answered until we put those two test models in the air. Some experts have pointed out that the automobiles which the Members of this Congress drive home from the office each evening produce more pollution than the entire projected fleet of 500 SST's traveling the same distance. But we shall not fully know the answers to these kinds of questions until we put those two aircraft in the air and investigate their effects. A statement made by Martin Van Buren when he was still Governor of New York in a letter to President Andrew Jackson in 1829 has recently come to my attention, and I think it should be pointed out at this time.

As you well know Mr. President, railroad carriages are pulled at the enormous speed of 15 miles per hour by engines which in addition to endangering life and limb of passengers roar and snort their way through the countryside setting fire to the crops scaring the livestock and frightening women and children. The Almighty certainly never intended that people should travel at such breakneck speed.

In a book entitled "A History of Invention" which was published in 1962, Egon Larson reported the following:

When they tried to build the first long-distance passenger and freight train from Manchester to Liverpool, a great campaign of abuse began. It was claimed that the terrible spectacle of a locomotive rushing by would effect people and animals: ladies would have miscarriages, cows would cease to give milk, hens would lay no more eggs, the poisoned air from the engine would kill all the livestock in the district as well as the birds and the trees and houses along the line would be set on fire by the sparks.

This is some of what we have heard about the effects of the SST. I would just like to say that no nation can progress if its actions are predicated on some vague fears of the future. The continuation of the supersonic prototype program can resolve all those fears that we harbor and this program can serve as a base for future progress. To default now, to retire from the international competition, is neither in the spirit nor the tradition of the United States, particularly in aviation where we have led the world since the inception of this industry.

Mr. President, I intend to vote in favor of the SST.

I thank the Senator for yielding.

QUORUM CALL

Mr. PROXMIRE. Mr. President, I suggest the absence of a quorum, the time to be taken from my side.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. PROXMIRE. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. PROXMIRE. Mr. President, I yield 15 minutes to the Senator from Illinois.

The PRESIDING OFFICER. The Senator from Illinois is recognized.

Mr. STEVENSON. Mr. President, I thank the Senator from Wisconsin for yielding.

The issue before the Senate today was the subject of extensive public debates last year. Out of those debates emerged three major objections to continued Federal support of the SST.

First is the serious doubt about the aircraft's effect on the environment. It has been argued that construction of two prototypes will give us the answer to the environmental questions and that no construction beyond the prototype stage will be authorized if these answers are not satisfactory. But the construction of two prototypes will not tell us about the effect of 500 SST's making regular commercial flights. This is the essential environmental question. Until it is answered the continued Federal subsidy of the SST runs the risk of being a subsidy of environmental pollution.

Second, there is a traditional doubt about the wisdom of Federal subsidies for commercial projects. Doubts about the SST's effect on the environment are now matched by equally serious doubts about its prospects as a commercially viable product.

Having faith in our enterprise system, the resourcefulness of the aviation industry, and our private financial institutions, I am persuaded that if this plane is the aviation wonder its proponents claim, adequate financing of the prototype and the production stages will be available in private markets.

Finally, there is the crucial issue of national priorities. We are dealing with the allocation of a portion of limited Federal resources. We are faced, too, with the task of funding of urgent domestic programs which have been starved. We cannot have it all ways. Millions—perhaps billions—of dollars spent in the future for development, and perhaps later for the production, of SST's would be moneys diverted from schools, housing, health, mass transit, and other real and immediate public needs.

Some argue that it is important to be first in aviation. I would suggest that we can be first in aviation, and without this subsidy; besides, it is more important to be first in curbing infant mortality. It is more important to be first in mass transit and in safe and livable cities. It is more important to clean the air than to risk filling it with poison and with noise.

Last year the President vetoed a manpower bill primarily because of its public service employment section. There is no place in modern America, the President said, "for permanent subsidized employment." Now the administration argues that we must continue to subsidize the SST to subsidize jobs in the aircraft industry.

That is an argument that can be made in support of all commercial projects, and the Government cannot support all. It is the business of the national Government to determine national priorities and allocate our resources accordingly. I suggest it is more important for the Federal Government to create jobs in schools, in hospitals, and in the myriad of public agencies no longer able to deal with the growing demands for public services.

Above all else, the Senate is faced today with an issue of symbolic importance. The same issues, the same arguments, were debated last year. Last November the Senate, responding to the wishes of millions of Americans, voted to end the Federal subsidy for the SST. Nothing has changed since then—nothing except the infusion of massive amounts of money in a lobbying campaign.

There is nothing wrong with special interests lobbying, but the fact remains that the central issues are the same as they were last November. The public awaits the Senate's reaction to these same issues after 4 months of intensive, well-financed lobbying. At stake, therefore, today in the Senate is not only the question of whether we will help to reorder national priorities, but a question of public confidence in the ability of our public institutions to represent the public interest.

There have been few other issues in which questions of national priorities and political power have been so clearly delineated. The Senate has a chance today to restate, in forceful terms, its commitment to the use of scarce national resources for national needs. It has a chance to reject the notion that machines equal progress. We can, if we but have the will, make ourselves the mas-

ters of our technology instead of its victims.

The Senate today can serve notice that national priorities will not be swamped in a flood of propaganda, high pressure lobbying, and arm twisting. We can end the arguments which say that once funds are committed to a project, it must be carried through to its end, no matter what that end is.

Ours is a nation of fantastic resources—of money, manpower, and technology. Our political system is the soundest ever devised by the mind of man. Yet people in our Nation see a difference between things as they are and things as they really could be. When we travel over our country and see that the air and the lakes and the rivers are filled with poisons, that some people do not receive adequate medical care because they cannot afford it, when the walk at home from the bus stop is a moment of fear in the daily lives of many, people ask why, and they look to their governments for an answer.

Congress has not been faced with an issue of such symbolic importance in many years. People everywhere are asking why. People everywhere are looking to the Senate today for more hope. They want to feel that we can and we will close that gap between things as they are and as they really can be. They want to have more faith in our capacity for self-government.

I submit that the issue is not only the preservation of our atmosphere, it is not only the need to reorder national priorities, it is not only the question of public subsidies for private ventures. Because of all these concerns, but also because of the need to renew public confidence in public institutions, the Senate should again oppose Federal funding for development of the supersonic transport.

I thank the Senator for yielding.

WHO NEEDS THE SST?—AMERICA DOES

Mr. GOLDWATER. Mr. President, there can be little doubt that the proposal now before us to provide for the production of two prototype models of the SST has had a thorough airing. Over the past months we have heard all the conceivable, and even some inconceivable, arguments that could be brought up in an effort to defeat this program and surrender America's valuable lead in the world's air transport industry.

We have heard claims that there is a powerful lobby working for the SST. If so, I hope they are correct. For if there ever was a need for a high-powered program of public education for the good of the Nation, this is one issue where it exists.

But let us not pretend, Mr. President, that there has not been an even more powerful anti-SST lobby working in all 50 States of this country for more than a year. And I would remind the Members that the funding for this program was discussed and approved for more than 10 years without charges of pollution, skin cancer, and related charges being brought to public notice. If there is an SST lobby functioning today, it is a lobby which was created to fill a national need for the true fact concerning the SST. If there is an SST lobby functioning today, it was made necessary by hysterical and unsupported claims from opponents of this program who have done their best to make it a terminal point in a nationwide fight against air pollution.

Mr. President, I have been a conservationist for all of my adult lift. Long before the words "ecology" and "pollution" became prominent in practically all public discussions, I was known in my native State of Arizona as a nature lover. I might state that my political opponents sometimes waxed derisive in alluding to my concern for my beloved desert land and my interest in the Grand Canyon and the other scenic wonders of my State. For example, I have been known at times as a "desert rat." I have also been known as "a Grand Canyon buff." Both names were applied in efforts to belittle my concern for nature's wonders. But I was proud of them at the time. I am even prouder of them today.

Mr. President, what I am attempting to point out here is that I yield to no one—whether he be a member of the Sierra Club or the Friends of the Earth or whatever some of these new groups like to call themselves—in my concern as a conservationist.

Mr. President, I am sorry that it becomes necessary for me to go into this past history of a personal nature. But I feel it is important in view of the fact that opponents of the SST are making such a concerted effort to make it appear that anyone who votes for this needed program of progress is automatically against conservation and either in favor of polluting our environment or indifferent to the possibility that such might be the case in the development of American SST.

So let me state now, in the concluding hours of this very prolonged and intense debate on the SST, that I vote for it with not a single qualm as to its possible effect on the earth's atmosphere or the stratosphere. If there were even a question of a doubt I would be opposed to this program. But after listening to and reading through all the arguments about what the SST might do to the atmosphere, the stratosphere, the radiation levels, and so forth, I am convinced that these arguments have no validity and were raised, some of them on the basis of only a 20,000-to-1 probability, in an effort to defeat this program through misrepresentation.

My background, Mr. President, also includes considerable experience in the field of aviation. As a retired major general in the U.S. Air Force and a pilot of many years' standing, it has been my privilege to fly more than 100 types of American-built planes, including some that are capable of flying at supersonic speeds. Perhaps more than any other Member of this body, I have made it my business to keep up on all of the new and projected developments in the field of aviation, both military and civilian.

And I draw upon that experience, Mr. President, to say that an American SST is not only feasible but it is absolutely necessary. There will be SST's in our future—yes, yours and mine—the only question is whether they will be American SST's or British-French SST's or Russian SST's.

I have noticed that many of the more exaggerated claims of the SST's critics are based on the assumption that there will be fleets of these supersonic giants all flying at the same time and for many hours a day. Let us assume that SST fleets grow out of the SST models which the Russians and the French and the British are already flying. For the sake of argument, let us grant that these enormous and highly improbable fleets have an adverse effect on the atmosphere and the stratosphere. In such a case, it would be imperative for this country to at least have SST prototypes available so that we could make our own tests and devise ways to protect ourselves from the effects of the SST fleets launched in Western Europe and in the Soviet Union. I certainly think we can agree that any pollution resulting from planes built and flown in Europe will not confine their contamination, if any, to the geography over which they fly. If an American SST fleet would pollute the environment, a Russian fleet would pollute the same environment. If an American SST would cause skin cancer, a French or British SST would cause skin cancer.

I think it is important, Mr. President, to remember at all times that we are not here voting on the future conduct of aviation agencies in other countries.

There is a great confusion on the part of the public on this matter. Many Americans seem to think that if we defeat this funding proposal here in the Senate that we will be killing the advent of supersonic air travel throughout the world. This, of course, is ridiculous. Other countries are already flying their SST's and reaching for future sales in the American market. If you do not believe me all you have to do is pick up the March 8 issue of the magazine, Aviation Week and Space Technology, and turn to pages 86 and 87. There you will find a double-page, multicolored advertisement for the Russian SST, the TU–144. Not only have the Russians produced and are flying an SST, they are already advertising it for sale in American magazines.

What this means, Mr. President, is plain enough: the Russians are serious in their bid to take over American civilian aviation markets. They undoubtedly understand that they are shooting, not just for the SST market but for the market on all planes in that same family which will come after the TU–144.

In this simple funding of prototype program we can take a small step toward catching up in this vital field. If we vote it down, I believe we are sacrificing future markets which will involve billions of dollars in sales, millions of dollars in salaries, and wages and many thousands of jobs which would otherwise have gone to workers in the American aerospace industry.

I say that on this vote, we, as a nation, have everything to lose and very little to gain. However, our situation vis-a-vis the French, British, and Russian is such that we need to take advantage of whatever little gains we can.

Mr. President, in conclusion, I should like to voice another concern with regard to the effort to defeat the SST and

have America turn her back on a field in which she has held the world leadership for many years. I believe that it is part and parcel of the same drive which is aimed at making this country isolationist again, making it withdraw and pull back from her honorable international commitments, making her relinquish her No. 1 position as a world power. It strikes me that many of those opposed to the SST are the same people who would have us withdraw precipitiously from Indochina, cut down our commitments to the North Atlantic Treaty Organization, relinquish our precarious position of nuclear parity with the Soviet Union.

In other words, Mr. President, I see the fight against the SST as another step in the direction of making this Nation a second or possible a third-class factor in the family of nations.

In connection with this debate, I ask unanimous consent to have printed in the RECORD a brief background statement on SST environmental research.

There being no objection, the paper was ordered to be printed in the RECORD, as follows:

A BRIEF BACKGROUND OF THE COMMERCE TECHNICAL ADVISORY BOARD AND THE CTAB PANEL ON SST ENVIRONMENTAL RESEARCH, U.S. DEPARTMENT OF COMMERCE

(Prepared by Frank Cacciapaglia, Jr., Executive Director, CTAB, Feb. 22, 1971)

"I consider this citation relating directly to the activities of the Commerce Technical Advisory Board which . . . has rendered outstanding service to the Commerce Department and the Nation."

With these words the Secretary of Commerce, in 1966, accepted the Industrial Science Award from the American Association for the Advancement of Science "for significantly increasing the communication between science and industry to benefit all segments of the population in meeting human needs and aspirations."

BACKGROUND

The Commerce Technical Advisory Board or CTAB, as it is becoming increasingly well known in scientific and government circles, was established by the Secretary of Commerce in January 1963 at the suggestion of the President of the United States. The Board was created in view of the increasing importance of science and technology to the Nation's economic growth and the action of the Department of Commerce to develop policies and programs to encourage the expansion of the Nation's scientific and technological capability and to stimulate its use in industry and commerce. Specifically, it was intended that CTAB should bring outside views to bear on the technical activities of the Department of Commerce, assess the future and continuing role of its scientific and technical agencies, and consider the interaction of economic and business matters with research and development. In order to promote economic growth, the Board was also to suggest ways to stimulating research and development by private industry for private industry and to advise on specific technical problems of major material significance as they arise.

During its eight year history, CTAB has matured from studying purely internal Department of Commerce programs and problems to wide-scope national interest problems. For example, CTAB panels have studied and reported on the technological problems of surface effect ships; the promotion and management of invention and innovation; the utilization of the electromagnetic spectrum; research and development relating to high speed ground transportation; and the feasibility of using electrically powered highway vehicles to mitigate air pollution caused by automotive internal combustion engines.

Since its inception, over fifty distinguished Americans have served as members of the Commerce Technical Advisory Board. They have been drawn from almost all of the disciplines, the main criterion being that they are outstanding in their fields. There have been industrialists, engineers, scientists from various disciplines, economists, academicians, labor leaders, and bankers who have served on CTAB. Members are appointed for a one year period and may be reappointed. If a CTAB member is chairing a Panel at the expiration of his term, his membership has been extended until his Panel has completed its report. In addition, several hundred other leaders from the private sector have served on the Panels and Sub-Panels created by CTAB to conduct specific studies.

All members of CTAB serve without reimbursement although the Department of Commerce does pay for travel and expenses necessary for CTAB's business. The Board meets for one or two days periodically, about eight times a year. As a general rule, meetings are held in the Department of Commerce in Washington although meetings are held in other locations when institutions outside of Washington can make contributions to CTAB. Meetings have been held, e.g., on board vessels of the National Oceanic and Atmospheric Agency (formerly Environmental Science and Services Administration) at the United States Patent Office in Virginia and at the Department of Commerce facilities in Boulder, Colorado.

In addition to public members of CTAB Panels, various agencies of government which have an interest in the work of a particular panel usually designate liaison members to assist the Panel. Such liaison members take an active role supplying technical advice to Panels but are not granted a vote.

The Commerce Technical Advisory Board is chaired by the Assistant Secretary of Commerce for Science and Technology. Thus far, this post has been held by J. Herbert Hollomon, John F. Kincaid, and Myron Tribus. Richard O. Simpson, Acting Assistant Secretary is currently serving as Acting Chairman of CTAB. Dr. James H. Wakelin, Jr., recently confirmed by the Senate as Assistant Secretary for Science and Technology, will soon assume the Chairmanship.

The administrative functions of the Board are handled by an Executive Director who, traditionally has been selected from among the Department of Commerce Science and Technology Fellows.

Each CTAB panel is chaired by a member of the CTAB who is assisted by an Executive Secretary. Members of the Panel need not be members of CTAB and are usually chosen from outside for their expertise in the subject being studied by the Panel. Funding for the Panel may come from the Department of Commerce or from the outside agency requesting the study.

The Panels of CTAB have been of two general types: those which have defined the technical state of the art necessary to attack a problem of national concern and those which investigate ways in which the institutions of government (particularly those of the Department of Commerce) could be modified in order to fulfill their roles more effectively. Examples of the latter type of Panel are the Engineering and Commodity Standards Panel whose report led to the establishment of the United States of America Standards Institute (now the American National Standards Institute), the Patent System Panel whose report has been the basis for revisions to the patent system still under consideration, and the Telecommunications Panel whose report led to the establishment of the Office of Telecommunications in the Department of Commerce.

CTAB hears presentations and participates in discussions relating to the organization, policy, and technical activities of government. Experts are frequently invited from the various branches of the government, or from outside, to brief the Board on the activities of their organizations. These encounters serve to broaden CTAB's understanding and to uncover areas of interest where CTAB might wish to charter a Panel. In addition to ideas for panels which are generated from within, requests for creation of panels come from outside of CTAB, such as other government agencies. Examples of the latter include the Panel on Automotive Fuels and Air Pollution and the Panel on Housing Technology.

To amplify, CTAB, in 1967, issued a report on the Automobile and Air Pollution. As a direct result, CTAB was asked, in late 1969, by the President's Science Advisor to conduct a study on the implications of removing lead and other additives from gasoline. This study was funded jointly by the Departments of Health, Education and Welfare and Transportation. The report of the CTAB Panel on Automotive Fuels and Air Pollution was accepted by CTAB at its meeting on February 17, 1971, and will be issued shortly.

CTAB, in 1970, issued the report of its Panel on Housing Technology. This study was funded largely by the Department of Housing and Urban Development.

The CTAB Panel on Noise Abatement will shortly release its report on what it believes can be done to reduce noise pollution.

CTAB, because of its reputation for objectivity and professionalism in its published reports, is called upon increasingly to make studies on issues of transcending importance to the Nation. Its interest and capabilities in environmental issues has become well-known.

There are a number of criteria; however, which CTAB feels must be met before it will undertake to establish a Panel:

1. The problem must be capable of clear definition understandable to those who will serve on the panel. The charter by which a CTAB panel is established must convey the precise nature and scope of the problem to be studied.

The problem should be one having substantial national significance and involve science and technology in attempts to define a solution

3. The problem should be one that CTAB is not only well qualified to consider but, preferably, one for which CTAB has a capability superior to other study groups.

4. There should be a reasonable expectation that the report of the panel to CTAB will result in action—by the Department of Commerce itself or by another member of the federal establishment or by a professional group—whereby some public benefit may be realized.

Mr. William Magruder, Director of the SST program, approached Dr. Myron Tribus, then chairman of CTAB, in the summer of 1970 and out of their discussions arose the possibility that a study concerning environmental questions relating to the SST might be undertaken by CTAB. CTAB was briefed on the matter at its September 16–17, 1970 meeting by Mr. Magruder. CTAB carefully considered what he had to say and whether the issue met its four criteria for establishing a Panel. It was agreed unanimously by all present that CTAB should undertake the SST study. In line with earlier precedents, funding for the study, approximately $100,000 will be supplied by the interest soliciting the study, in this case the Department of Transportation.

At the September 1970 CTAB meeting the identification of suitable candidates for membership on the Panel was initiated by CTAB. CTAB seeks to establish balanced panels representing the total spectrum of

views. Efforts were taken to choose the best people available who did not have a personal financial or business interest in decisions concerning the SST. Approximately four months were spent in this effort, and in obtaining requisite clearances and receiving acceptances from those selected.

Two meetings of the SST Panel have been held on January 23, 1971 and February 19, 1971. A third meeting is planned for March 18, 1971. These meetings have been for information purposes only and no decisions have yet been reached.

Attached is a list of Panel members, affiliations, and areas of expertise. Where the Panel requires further expert advice, it plans to solicit same for qualified sources.

Attached also is a list of the government liaison representatives to the Panel. A strong effort has been made to insure that all possible relevant areas of the federal establishment are represented.

PANEL ON SUPERSONIC TRANSPORT ENVIRONMENTAL RESEARCH

To determine potential environmental pollution and radiation hazards associated with proposed supersonic aircraft.*

To determine whether supersonic aircraft would create significantly increased world weather and climatic hazards with particular (but not necessarily exclusive) reference to the following:

An increase in upper air water content;

A decrease in upper air ozone content with subsequent increase in ultraviolet radiation;

A change in atmospheric temperature through disturbance of the thermal radiation balance; and

An increase in cloud cover through contrails.

To determine whether SST passengers and crew will experience ionium radiation exposure problems.

For each of these questions, and other related environmental questions which the Panel may identify, advice and recommendations should be given concerning:

Whether enough information is available to provide definite answers at this time;

Whether adequate research programs are underway, in the U.S. or in foreign countries, to cover subjects for which inadequate information exists; and

Whether planned research programs are designed to produce definitive answers prior to appropriate decision points in the U.S. SST program.

Mr. BUCKLEY. Mr. President, will the Senator from Oklahoma yield me 5 minutes?

Mr. BELLMON. Mr. President, I yield 5 minutes to the Senator from New York.

Mr. BUCKLEY. Mr. President, as one who has maintained a lifelong interest in conservation, I have been greatly concerned over the possible adverse environmental effects of supersonic transports. I am speaking not only of sideline noise and the sonic boom, but most particularly about the problems posed by the potential contamination of the stratosphere, because anyone familiar with the delicate interconnection of ecological balances must take seriously the concern expressed by many scientists over the adverse consequences which could result from even relatively small changes in the composition of the upper atmosphere.

It is for this reason that my position on the SST has been, as it continues to be, that the burden of proof of environmental safety must rest with the proponents of the SST—not with its critics. In other words, before supersonic transports are placed in commercial use, the proponents must first establish beyond a reasonable doubt that they will not adversely affect the life or climate of this planet. Further, it has been my consistent position that if such proof is not forthcoming, then we must not only terminate our own program for the development of a commercial SST, but we must discourage its development abroad both by denying American landing and overflight rights for SST's of foreign origin, and by working for an international treaty to outlaw all supersonic transports.

In attempting to assess the potential effect of the SST on the environment, my staff and I have studied the voluminous evidence presented before congressional committees. We have also consulted numerous specialists in scientific affairs, airline economics, and environmental matters, and have met with representatives of several citizens' groups. The individuals consulted represented the complete spectrum of opinion on the SST, ranging from strong proponents to strong opponents.

It appears from this review that the environmental problems associated with local engine noise and the sonic boom can and will be met by the simple expedient of outlawing overland flights at supersonic speeds and by requiring that sideline noise on landings and takeoffs be kept within the limits currently in effect for existing subsonic jets. The General Electric Corp. has undertaken to achieve this reduced level of noise by eliminating the engine afterburner, which modification will be achieved at a substantial sacrifice in terms of weight. While these measures may have a critical effect on the ultimate economics of the aircraft, they will meet the principal environmental objections as far as noise is concerned.

With respect to the problem of pollution resulting from SST flights in the stratosphere, we have discussed the details of the problem with some of the most articulate opponents of the SST on environmental grounds, including Dr. James McDonald of the Institute of Atmospheric Science of the University of Arizona, and Dr. Richard Garwin, a scientist associated with the IBM Corp. Both scientists expressed serious concern over the possibility that widespread commercial use of SST's could have a detrimental effect upon the environment. Both of these men pointed out, however, that not enough is yet known about the extent to which supersonic flight in the stratosphere could influence our environment, and emphasized the need for additional research before a definitive conclusion can be reached.

We discussed the problem of the environmental impact of the SST at length with Dr. Fred Singer, chairman of the SST Environmental Committee. This committee was instrumental in encouraging administrative and legislative measures to prohibit supersonic flights over land. Dr. Singer is a geophysicist who has had a long career devoted to the study of atmospheric phenomenon. Although he was skeptical of some of the suggested hazards of the SST, Dr. Singer emphasized his belief that it was impossible at this stage for anyone to discount these hazards or to attempt to evaluate the environmental dangers of the SST because so little relevant scientific data has as yet been collected. He pointed out that until recently, there has been little or no scientific interest in the effects of supersonic flights on the stratosphere; and further, that certain of these effects could not be conclusively determined without utilization of an operational prototype.

Dr. Singer and the others who were consulted believe that the series of experiments which are planned in connection with the prototype development program—at a total cost of $26 million—will enable scientists with competence in the field to measure the broad impact of the SST on the environment, and to determine whether or not its commercial utilization would create potential hazards.

Thus, while it is clear that the proponents of the SST have yet to sustain the burden of proving that the commercial utilization of the aircraft would not adversely affect the environment, it appears equally clear that the evidence required to make a definitive judgment cannot be marshaled until the prototypes have been built and the necessary data gathered under actual operating conditions.

Based on environmental considerations, I believe it is important that the additional information be secured. If we terminate the program at this stage, we will not be safeguarding the environment because our action will not prevent other nations from continuing the development of their own supersonic transports; and if such additional information would in fact confirm that it would be imprudent to place the aircraft into commercial operation, we will have precluded ourselves from amassing the hard information required, first, to justify denial of landing and overflight rights to foreign SST's and, second, to work effectively for an international treaty banning all SST's.

I fully appreciate the fear expressed by many that once the program is carried to the prototype stage, there will be tremendous pressures to place the aircraft into commercial production in the absence of adequate evidence that the environment would not be adversely affected. It is for this reason that I sought specific assurances that the SST will not be allowed to go into commercial production until the results of the testing of the prototype have been fully evaluated, and a clean bill of environmental health issued.

I met with the President yesterday afternoon, and he reiterated in the strongest terms his personal commitment that the United States will not proceed with the commercial development of the SST if there is any doubt as to its environmental safety. Further, he stated that he would, in the near future, establish a committee whose specific task will be to make an impartial review of all of the data secured in connection with the prototype program and to make the final

*Noise pollution problems will be considered by another group.

determination as to whether the burden of proving the environmental safety of the SST has been satisfied. It is on the basis of these assurances that I shall vote this afternoon to continue the funding of the development of the SST prototype.

In closing, I would like to make an observation about one aspect of the SST program which is not related to environmental considerations.

The SST program involves a very great commercial risk which cannot be discounted. I believe, however, that it is too readily assumed that the entire public investment in the SST program will be lost if the resulting aircraft should prove unfeasible for either environmental or economic reasons. Such a view, in my opinion, ignores the very real benefits which we will have derived by way of technological spin offs from the development and testing of the prototype.

It should be kept in mind that an aircraft, whether subsonic or supersonic, involves three main components: the airframe or the aircraft's structure; the avionics, or the aircraft's electronic navigation and communication control equipment; and the propulsion system; that is, its engine. Because supersonic flight with an aircraft of the size of the proposed SST so far exceeds in complexity any yet built, by the time the prototypes have been completed, significant advances will have been achieved with respect to each of these components. Advances in material sciences, for example, will permit the construction of larger and more efficient subsonic aircraft. The high speeds at which supersonic aircraft travel will require substantial advances in navigation and collision avoidance systems which, when transferred to subsonic aircraft, will help increase the safety of air travel while making it possible to increase efficiency by permitting aircraft to be more densely "packed" in existing air routes.

There is already an indication that the technological development of the SST will have a number of ready applications to military aircraft, including advanced avionics and instrumentation for the proposed B–1A manned strategic bomber for the U.S. Air Force. This, incidentally, represents a reversal of a 25-year trend which has seen most of the technological advances in aviation transferred from military to civilian purposes rather than the other way around.

These are economic factors which ought properly to be taken into consideration in determining the ultimate amount which is at risk. But while there is room for argument as to how much public money ought to be risked in such a venture, I believe that thanks to the effective work of various conservation groups, Americans are now generally in agreement that we cannot afford to take risks with the environment.

My vote to continue funding the development of the SST prototypes is, in my judgment, totally consistent with this overriding concern.

The PRESIDING OFFICER. Who yields time?

Mr. GOLDWATER. Mr. President, will the Senator from Oklahoma yield me 3 minutes so that I may reply to the statement of the Senator from New York?

Several Senators addressed the Chair.

Mr. MAGNUSON. Mr. President, may I inquire how much time remains on both sides?

The PRESIDING OFFICER. The time allotted to the Senator from New York has expired. There remains 58 minutes to the proponents and 81 minutes to the opponents.

Mr. MAGNUSON. I yield 5 minutes to the distinguished Senator from Arizona.

Mr. GOLDWATER. Mr. President, I congratulate the Senator from New York for what I think is probably the best reasoned statement of reasons for voting for this measure that I have heard. He recognizes that neither side can make definite statements about what will or will not happen, and calls for proof by the proponents as well as the opponents.

Mr. President, contrary to what many people have been led to believe, there has been a long period of deep research in the upper atmosphere and the lower atmosphere, being conducted by the Air Force and other academic groups in this country. In fact, in 1969 the Air Force made 20,345 supersonic flights, with a total flight time of 1,827 hours. Mr. Herbert Appelman, Chief of the U.S. Air Force Physical Science Office, after some of these investigations, has made a statement in which he concluded that a change in jet flight altitudes from 35,000 to 70,000 feet would result in a large relative decrease in contrail frequency.

As opposed to definite statements by the proponents, as reflected here, the opponents have been relying upon statements made by scientists as to what they think might happen if certain things took place. The statements by Dr. McDonald about skin cancer, to me, though I am not a scientist, were ill-advised. He did not come here with any proof; he merely says this might happen.

It might happen; but, again, we are going on an assumption that has no scientific background at all, particularly when we realize that the so-called fleet he is talking about, of 500 SST's, and the fleet that the Senator from Illinois just mentioned of 500 SST's, if they all flew together, wing to wing, would be only 8 miles in length, and this would be like scratching a billiard ball with a needle, to try to get a comparison with the area that might be involved in flying across the North Atlantic.

No, the proponents of this measure have made the only sound investigations that have been made. The opponents of the measure have been engaged in wishful thinking as to what might or might not happen. For example, I have in my hand the preliminary evaluation of the XB–70 airplane in intercontinental flights with high altitude turbulence, something that Dr. McDonald did not take into consideration. He states that you cannot sustain a suspension of particulate matter in the atmosphere where there is turbulence, wind, or changes in temperature. That may occur in an absence of turbulence, but there is more turbulence at those altitudes, so much so that we probably will not see commercial aircraft flying much above 60,000 feet, because of wind turbulence. So this particulate matter will not remain suspended in the atmosphere; it will be moved because of the action of winds and temperature changes.

So I conclude by saying to my friend from New York again that I think he has made a most reasonable statement, in view of the statements of others I have heard on this whole subject. How are we going to find out what supersonic aviation will do without tests conducted on aircraft as large as the SST? Are we going to ask the Russians, and expect them to tell us? Not on your life. Will the French and the English be likely to tell us what they are experiencing? I do not think so.

I think it would be very wrong for us, at this time, to stop the development of new prototypes, so that we might answer the questions on our minds and on the minds of Americans all over this country, who have been led to believe that they are going to catch every disease known to man if the supersonic airplane flies.

Mr. PROXMIRE. Mr. President, I yield myself 1 minute, before yielding to the Senator from Iowa.

Mr. President, the fact is that the prototypes can contribute nothing to telling us what effect a fleet of supersonic transports will have on the atmosphere. There is no question about that; all of the scientists agree. All they can tell us will be how the prototype performs. These prototypes will be flown exactly 100 hours, according to present plans, before the decision is made whether to go into production. So any argument that you can rely on these two prototypes to give you any answer as to the effect on the environment is just ridiculous. I do not know of any scientist, any engineer, or anyone who has made the assertion that you can take two prototypes and learn all the environmental answers.

The evidence as to the possible polluting effect of a supersonic transport on the atmosphere comes from a man who was asked by the National Academy of Sciences to look into it. He looked into it for more than a year and studied it very carefully. He testified before the House Appropriations Committee at great length. We took that testimony and submitted to 40 of the outstanding meteorologists and skin cancer specialists in the country. I put into the RECORD their analysis, and commented on it at some length yesterday.

The fact is that the scientific community overwhelmingly supports that scientist's general conclusions; that is, they do not know for sure whether the SST's will cause skin cancer or not. But there is strong evidence that it might. The projection is that it might cause 5,000 to 10,000 additional cases of skin cancer. As I say, it has not been determined definitely. They say they need 10 years to determine it, and the prototypes will not give us the answer.

Mr. President, I yield 10 minutes to the Senator from Iowa.

Mr. MAGNUSON. Mr. President, will the Senator from Iowa yield to me for 2 minutes?

Mr. HUGHES. I yield.

Mr. MAGNUSON. Mr. President, I do not like to belabor this matter, but every time I hear the Senator from Wisconsin, I feel compelled to stand up and correct the RECORD. Otherwise, I would not take up the time of the Senate.

I put in the RECORD yesterday, and we have heard here, the fact that there are eminent scientists—I put statements from many of them in the RECORD yesterday—who disagree. I use the word "eminent" because the Senator from Wisconsin uses it all the time. Their testimony is just opposite of the Senator from Wisconsin's experts. So here we are again, keeping hammering away at this business and really there are many unknowns.

But I ask unanimous consent to have printed in the RECORD a letter from Dr. Singer, published in the Washington Post this morning, on this subject of the environment, which I think is quite pertinent. I add this to the views of the other very eminent scientists whose statements I put in the RECORD yesterday.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

ENVIRONMENTAL CONCERNS AND THE SST

Can a fleet of SSTs really produce harmful effects on the atmosphere, on the climate, or on human health? This has become the burning question in the SST debate, since it is now generally accepted that the noise problem is licked and the sonic boom confined to the ocean routes. At this moment, the opponents have no proof whatever that harmful effects will be produced, and the supporters cannot be 100 percent sure that harmful effects may not exist. While this is a fair way to state the situation, it is of little help to those who seek guidance. And, to make matters worse, both the supporters and the opponents are inundating the public and the Congress with misleading and irrelevant information. According to the Boeing Company, one SST is equivalent to three cars; according to the Sierra Club, a fleet of 500 SSTs is equivalent to 100 million cars. Both sides are correct if one reads the fine print; yet both statements are misleading and completely irrelevant; cars do not drive in the stratosphere.

Then what can we say for sure at the present time? That the two SST prototypes which are under debate now will cause no environmental effects whatsoever. The environmental impact of the prototypes is a *nonproblem*. But should we not be concerned about the effects of a fleet of commercial SST's? Well, the degree of concern which has been expressed by scientists seems to depend on their emotional involvement with the SST project. Yet the considered opinion of the governmental advisory committee made up of the most knowledgeable scientific experts is this: We can be reasonably sure that the pollution effects will be well within the natural climatic variations and therefore will not be harmful. Water vapor, ozone, dust content in the stratosphere—all of these vary due to natural causes—far beyond additions from an SST fleet. How sure is "reasonably sure"? Assigning a number is subjective, but I personally would choose 95 per cent. This is not good enough; one needs to be 100 per cent sure before proceeding with a commercial SST fleet in the future. In order to make refined predictions, we need more data. The major purpose of our committee is to shape a research program which will get the necessary data. Consider, for example, the skin cancer controversy, which depends on the argument that the water vapor from the SST engine exhaust will diminish the ozone content and thereby increase ultraviolet radiation reaching the surface. This connection is based only on theoretical calculations. But the actual data which have become available show that while the water vapor content has increased in the stratosphere recently, the total ozone concentration has also increased—a contradictory result but a measurement which seems to eliminate the basis for the skin cancer argument. Once we understand this apparent contradiction and our predictions can be absolutely sure, then and only then will our government allow a commercial SST project to proceed. I note in passing that environmental concerns have not held back the Soviet Union, and have had no impact on the Concorde project in Europe.

One final thought. What if we are wrong after all and if adverse effects are produced *after* the SST fleet goes into commercial operation? Are the effects reversible? Fortunately they are; if an SST fleet is stopped from flying, any pollution effects and climatic consequences would disappear in a matter of one to two years. Again, we have Mother Nature to guide us, because natural upsets in the stratosphere produced by volcanoes and hurricanes have not caused irreversible change—in spite of the fact that they inject quantities of material vastly greater than SSTs.

What about the alternative to SSTs—subsonic jets flying below the stratosphere. Unlike SSTs, they produce contrails which would increase average cloudiness and could give rise to effects on the world climate. In summary, then, we can say that environmental concerns should be given relatively little weight in making a decision today on completing the SST prototypes.

S. FRED SINGER,
Chairman, SST Environmental Advisory Committee.
WASHINGTON.

Mr. MAGNUSON. It is true that the National Academy of Sciences has taken an opposite position on this subject. There are many unknowns, and that is the reason why we are here, seeking to fund the prototypes.

Mr. President, I also ask unanimous consent to have printed in the RECORD a lengthy article published in the Washington Post last Sunday, about the Soviet SST.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

SOVIETS APPEAR NEARER TO PRODUCING SUPERSONIC AIRLINER

(By Anthony Astrachan)

Moscow, March 20.—Soviet pilots "will start mastering" the Tupolev–144 supersonic transport this year, according to the Soviet minister of civil aviation.

The T–144 thus appears closer to production and use than either of its troubled Western competitors, the Anglo-French Concorde or the American SST.

But no date has been publicly set for the Soviet plane to start service. In 1968, Soviet officials predicted a start in March 1970. In 1969, they put the date at early 1973. A year ago they put it at 1975. Nothing has been heard since on an official basis.

Moscow observers are almost unanimous that the T–144 will solve neither the ecological nor the economic problems that seem likely to abort the Western supersonic transports.

They feel that those factors, combined with traditional Soviet marketing disabilities, will prevent the U.S.S.R. from selling many T–144s to Western airlines. Warnings from American aviation officials that the Soviets will sell many planes appear from here to be part of the lobbying effort for congressional approval of the Boeing SST rather than prudent conclusions drawn from available facts.

It is true that Aviaexport, the Soviet organization for selling aircraft abroad, has been advertising the T–144 in such publications as Aviation Week and Jane's Directory of World Aircraft.

THREE MOTIVATIONS

Moscow observers find three probable motivations for this: an intent or wishful thought of actual sales; a desire to build Soviet prestige when Western manufacturers cannot yet advertise supersonic transports, and a desire to fuel the American lobbying effort for the SST.

The last possibility reflects the fact that the Soviet aircraft industry has no guarantee of the precise dimensions of its slice of the resource pie. If the U.S. Congress appropriates more money for the SST, Soviet aircraft makers can turn to the Kremlin and say, in effect, "You have to give us the rubles to finish the TU–144 because the Americans are going ahead."

Efforts of the kind made on behalf of the SST by men like Najeeb Halaby of Pan American World Airways and astronaut Neil Armstrong are known to be used by their Soviet equivalents in the Kremlin's internal lobbying.

So far as the ecological problem goes, the Soviets have made public no facts about the TU–144's sonic boom except for statements by a test pilot and test-flight passengers that they could not hear it.

POLLUTION PROBLEMS

The U.S.S.R. is much less pollution-conscious than the West. Both its pollution and its relatively feeble efforts to solve pollution problems are concentrated more on water than on air. In Soviet society, citizens are not allowed to organize pressure groups against Kremlin-approved projects like the TU–144 of the kind that encouraged the U.S. Senate to stop funds for the SST last year, and the House to cut off funds this past week.

The sonic-boom problem is smaller here than in the West because the Soviet Union is sparsely populated, compared to the United States and Western Europe. Aeroflot could conceivably route planes around urban areas and minimize the effect of booms more thoroughly than is possible in the West.

That depends on the routes chosen. Alexei A. Tupolev, designer of the TU–144, said two years ago that it would operate on routes over 1,200 miles long. Most Moscow observers think it would be uneconomical on routes under 2,000 miles.

That would still allow a TU–144 to fly eastward from Moscow, Kiev or Leningrad to Alma Ata, Novosibirsk, Irkutsk or Khabarovsk, approximately 4,000 miles from Moscow in the Soviet Far East.

One rumor now being heard says that the TU–144 will go into service on the Moscow-Khabarovsk run in October. Efforts to trace the rumor to its source have wound up in Washington and Paris more than in Soviet officialdom.

FOREIGN SERVICE

The same is true of rumors of imminent supersonic services to Karachi, New Delhi and Calcutta. Soviet officials spoke two or three years ago of TU–144 flights to Tokyo and New York. Those flights would demand at least one stop en route because Tokyo and New York are beyond the craft's 4,040-mile range from Moscow.

All these flights would involve flying, presumably at subsonic speeds, over thickly populated areas like the U.S.S.R. west of Moscow, Western Europe and northern India. Yet Tupolev said the TU–144 was designed to travel at supersonic speed "almost during the entire flight time."

On the economic side, the Soviets have said only, "Economists have estimated that the cost of a flight on the TU–144 will not exceed that on subsonic planes."

Moscow observers are convinced that the TU–144 in fact will have costs comparable to the Concorde's. An American study put the operating costs of the Concorde per passenger mile at 40 per cent more than existing four-engine jets, which in turn would require at least a 25 per cent surcharge on regular passenger fares.

If that is true of the TU–144, the Soviet statement becomes simply a promise that the government will absorb these extra costs. It already absorbs much of the cost of housing and public transport, including existing rail and plane fares, as necessary social services.

PASSENGER SEATING

Cost estimates start with the fact that the TU–144 will carry up to 120 passengers in rows of three seats on one side and two on the other, compared to 128 to 144 in pairs of seats on the Concorde. The Boeing SST, which will carry 300 passengers if it is ever built, is not strictly comparable.

Tupolev said the TU–144 seating arrangement in a plane roughly the same size as the Concorde was made possible by the fact that the main undercarriage of the TU–144 retracts into the wings in the direction of flight, while that of the Concorde retracts into the fuselage at right angles to flight, i.e. in line with the wingspan. Tupolev suggested this meant less drag on his aircraft.

The maximum rated speed of the TU–144 is 1,550 mph at 65,000 feet; the maximum it has been reported as reaching was 1,458 mph at 51,000 feet in a test last Nov. 12. The Concorde is rated at 1,450 mph at 54,000 feet.

The TU–144 will have a range of 4,040 miles compared to 3,600 for the Concorde.

The Soviet engine thrust is similar to the Concorde—35,000 to 40,000 pounds, according to Halaby, who saw the TU–144 two years ago. The TU–144's four engines are clustered together in the center of the plane under the fuselage, while the Concorde's are located in pairs under the wings. Tupolev said the Soviet design means that if one engine fails, it will be easier to prevent inadvertent turns of the aircraft.

COMPARATIVE WEIGHTS

The Concorde takeoff weight will be 385,000 pounds, compared to 330,000 for the TU–144.

Both planes have bent noses like a bird's beak—the Tupolev slightly more so. Alexei Tupolev said this was to maximize the cockpit field of vision while eliminating the traditional "canopy" to reduce drag.

The performance of the TU–144 is unknown except in the most general terms. Halaby and Armstrong praised it without seeing it in flight. Its chief test pilot, Eduard Yelyan, said the plane was a great success and "much easier to control than subsonic aircraft."

Yelyan added that all flight characteristics had "proved better than the designed ones." He said the plane generated less noise than a conventional jet inside the passenger cabin.

The plane "trembled slightly" as it exceeded the speed of sound, but Yelyan said this was not likely to be noticed in the passenger compartment. Western passengers on all Soviet aircraft—prop, turbojet and jet—have noticed more vibration than on their Western equivalents. This is no reflection on their safety but it reduces passenger comfort and might conceivably reflect factors that would shorten aircraft life.

ON-BOARD COMPUTER

Up to 90 per cent of TU–144 flight operations are performed by an on-board computer "that calculates the course and the best trajectory and prepares the necessary information for landing." The plane will therefore carry no navigator and have only three people in the cockpit—pilot, copilot and flight engineer to check the equipment.

This may be a tribute to Soviet technology. But Soviet scientists have said that their computers are 5 to 15 years behind the West's, for reasons including poor component reliability, and specialists will be watching to see how the TU–144 computer checks out in performance.

However good the plane is, Soviet marketing disabilities remain a factor. The first is a penchant for secrecy that might prevent Western civil aviation authorities from learning what they want to know about how an aircraft is made as well as how it performs. The Soviets have seldom if ever permitted foreigners to make a thorough inspection of an aircraft factory.

Despite the signs of Soviet interest in Western sales, the Aviaexport advertising is rich in colors and poor in specifications. So little is known about the TU–144 that Western sources report nose-to-tail lengths varying from 188 ft. 6 in. to 196 ft. 10 in., and wing spans from 72 ft. to 88 ft. 3 in. The differences may reflect modifications in design that have also been rumored, but Soviet sources have not said which are the latest figures.

The second marketing problem is the traditional Soviet inability to provide service and spare parts on a basis acceptable to the West. Only the defense industry produces adequate service systems or spare parts here. Foreign buyers do get preference, as in the case of Volga cars sold abroad, because the Soviets usually do try to live up to contracts. Users in Nigeria and Finland still have not found Soviet performance equal to the West's.

COST ESTIMATES

Third is the fact that Soviet accounting methods lead to what Westerners regard as inaccurate cost estimates, even if there is no conscious intention to cheat.

Fourth is the simple fact that Soviet international aircraft have never been as comfortable for passengers as their Western equivalents, though Tupolev rated passenger comfort a prime consideration in the design of the TU–144.

All these factors led to dissatisfaction with the performance of Soviet Ilyushin aircraft sold to Ghana over 10 years ago. Romania bought British BAC–111s when it presumably could have had Soviet planes. Western airlines will be watching with interest the performance of YAK–40 medium-range jets recently sold to Italy, to see how these problems have been overcome.

Some observers believe that if the TU–144 is successful, competition in world markets will come less from attempts to sell the craft to Western airlines than from selling faster service to that handful of passengers that would rather cross the Atlantic in two hours instead of seven, or Siberia in three hours instead of 10.

The standard of service on Aeroflot makes Westerners think the latter choice would well be worth a surcharge. Such reactions warn against overrating Soviet competition for passenger-miles. But the Soviet airline, which now serves 60 countries, is extending its international routes. Its standards may go up as it moves into more competitive routes—although the cancellation for Scandinavian Airlines training for 40 Aeroflot hostesses is not a good omen.

Mr. MAGNUSON. I call to the attention of the Senate that there are headlines in every paper tonight, all over the country, that the Russians want to sell their SST here. A headline is not usually conclusive, but it bears some resemblance to the story in most cases.

Lastly, I wish to put into the RECORD, before I take a little time for myself for some remarks I wish to make, that I have gone to some effort, the last 3 days——

The PRESIDING OFFICER. The Senator's time has expired.

Mr. MAGNUSON. I yield myself 2 additional minutes.

To find out what would be the cost of concellation. We have different figures, but I think all of us agree on a certain round figure as to the costs.

But I went further and I asked what the cost would be as to layoffs of 14,000 direct employees. Using what even the economists cited by the Senator from Wisconsin acknowledge, the multiplier effect of 2½- or 3- to-1, it would give us a total of approximately 40,000 employees, either directly or indirectly employed, who would be subject to layoffs. The total welfare and unemployment cost for these people, based upon a minimum figure of $3,000 a year for each employee, would be $126 million a year. This is what we will have to pay, on the average layoff of those people who have some expertise in the aerospace industry, when they have been laid off over a year because they cannot find anything anyplace else. I suppose they would like to go to Philadelphia and work on rapid transit, but it just does not work that way in the real world. Incidentally, we have some money in this bill for rapid transit.

Mr. President, I ask unanimous consent that the figures on unemployed defense and aerospace engineers, scientists, and technicians be printed in the RECORD at this time.

I might add, that conditions have worsened considerably since these figures were compiled in the autumn of 1970. I would also like printed additional statistics on the vital impact nationally of the SST program.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

U.S. DEPARTMENT OF LABOR,
OFFICE OF THE ASSISTANT SECRETARY FOR MANPOWER,
Washington, D.C., March 18, 1971.

Hon. WARREN G. MAGNUSON,
U.S. Senate,
Washington, D.C.

DEAR SENATOR MAGNUSON: We are enclosing a table on unemployment among aerospace and defense engineers, scientists and technicians in selected areas in response to a recent request from Mr. Mike Stewart of your staff. The table is based on data developed by affiliated State employment security agencies as part of a survey conducted by the Manpower Administration in 24 areas which were significantly affected by defense and aerospace layoffs. Together, these 24 areas account for at least 35,800 of the 50–65,000 such individuals we estimate are unemployed in these occupational classifications.

The area unemployment data shown in the table are as of the fall of 1970. More recent information from other sources indicate that while total defense and aerospace employment has continued to edge down since then, the unemployment situation for displaced aerospace engineers, scientists and technicians has not altered significantly. This may not be true in each of the areas listed, however.

The unemployment figures shown in the table also represent somewhat less than the total number of defense and aerospace lay-

offs affecting engineers, scientists and technicians. Persons who have found jobs in other industries or activities (as well as in defense or aerospace), plus those who have retired, outmigrated or left the local labor force for other reasons, are not included in the unemployment estimate.

Sincerely,

MALCOLM R. LOVELL, Jr.,
Assistant Secretary for Manpower.

Number of unemployed—defense and aerospace engineers, scientists and technicians, selected areas, autumn 1970

Total, all areas listed	35,800
Alabama: Huntsville	1,500
California:	
Los Angeles	10,000
Orange County	2,400
San Diego	700
San Jose	1,300
Connecticut: Hartford	NA
Florida: Cape Kennedy	3,100
Georgia: Atlanta	2,500
Illinois: Chicago	400
Indiana: Crane	0
Kansas: Wichita	700
Louisiana: New Orleans	100
Maryland: Baltimore	300
Massachusetts: Boston	2,200
Missouri: St. Louis	800
New York: Long Island	2,900
Ohio: Columbus	100
Oklahoma: McAlester	(1)
Pennsylvania: Philadelphia	2,500
Texas:	
Dallas	1,900
Fort Worth	500
Houston	100
Texarkana	100
Washington: Seattle	1,700

NA. Not available
[1] Less than 100.

In some instances data shown represent minimum levels, and are based solely on the number of unemployment insurance claimants and/or job registrants at public employment offices.

Number of unemployed in all areas is somewhat less than the number of aerospace and defense layoffs in these occupational classifications. Persons who have found other jobs (whether or not in related occupations or industries), who have retired, outmigrated or otherwise left the local labor force are not included in these statistics.

Areas listed are standard metropolitan statistical or labor areas, and generally consist of one or more counties.

Source: Special survey data from State Employment Security Agencies.

National impact—SST vital summary statistics

Prototype peak manpower, direct and indirect Boeing/GE and first-tier subs (jobs)	23,627
Production peak manpower (550 A/C) direct and indirect, Boeing/GE, and first-tier subs (jobs)	81,979
Production peak manpower (with multiplier factor of 3) (jobs)	250,000
Total subcontracts awarded prototype through Dec. 31, 1970	
Boeing (in millions)	$216.4
GE (in millions)	$118.3
Total (in millions)	$334.7
Total number of actual suppliers (Boeing and GE) thru Dec. 31, 1970:	
GE	1,834
Boeing	1,100
Total	2,934
Total number of States—prototype first tier receiving subcontracts thru Dec. 31, 1970	43
Total potential number (Boeing/GE) first-tier suppliers—proto	3,100
Total potential number (Boeing/GE) first tier suppliers-prod	6,471
Total number of States—production first tier receiving potential subcontracts (Over $100,000):	
Boeing	37
GE	38
Total TBC & GE	39

Total contracts Awarded Boeing and GE Through Dec. 31, 1970, (all States)

Boeing, Jan. 1, 1967, through Dec. 31, 1970	$216,444,375
GE, Jan. 1, 1967 through Dec. 31, 1970 [1]	118,385,679
Total Boeing & GE	334,830,054

[1] Includes $5,485,963 that GE cannot brake out by state due to feature of computer program.

Major airframe and engine prototype, subcontract dollars awarded by State, Jan. 1, 1967, through Dec. 31, 1970

	Total value of awards
Alabama	$108,939
Arizona	14,417,795
Arkansas	306
California	106,022,961
Colorado	133,825
Connecticut	13,477,547
Delaware	85,686
Florida	915,857
Georgia	829,468
Idaho	$862
Illinois	8,729,072
Indiana	7,437,285
Iowa	116,715
Kansas	32,047,325
Kentucky	877,445
Louisiana	480
Maryland	13,465,101
Massachusetts	7,283,069
Michigan	$17,753,849
Minnesota	2,751,973
Mississippi	35,040
Missouri	73,207
Nebraska	8,099
Nevada	18,445
New Hampshire	134,423
New Jersey	4,100,765
New Mexico	26,540
New York	37,212,256
North Carolina	229,916
Ohio	36,104,174
Oklahoma	7,006,695
Oregon	1,301,994
Pennsylvania	$4,181,950
Rhode Island	154,612
Tennessee	2,417,876
Texas	3,573,595
Utah	82
Vermont	313,350
Virginia	1,193,179
Washington	3,357,215
West Virginia	54,507
Wisconsin	1,387,738
Wyoming	25
Grand total subcontract awards, Boeing and GE	329,341,243

1ST TIER BOEING AND G.E. TOTAL SUBCONTRACT DOLLAR IMPACT, PHASE III PROTOTYPE AND PRODUCTION (550 A/C) CALIFORNIA

	Total contracts awarded Jan. 1, 1967 through Dec. 31, 1970	Total potential suppliers, prototype	Total potential phase III contract	Total potential suppliers, production	Total potential production contract [1]
G.E.	$23,063,164	152	$32,000,000	290	$2,170,000,000
Boeing	82,959,797	202	126,800,000	804	3,795,000,000
Total TBC and G.E.	106,022,961	354	158,800,000	1,094	5,965,000,000

[1] The potential production peak labor subcontract 1st tier suppliers in the State of California (Boeing and G.E.) of 15,583 jobs is part of the 82,000 jobs of the projected total national impact of the SST production effort. Both direct productive jobs and related in direct or burden people are included in the total peak labor figures. The potential subcontract production dollars is expressed in time period (escalated) dollars.

Note: The above potential jobs total and by State or area do not consider such additional considerations as the impact of payroll, dollars (or jobs) for goods and services, and local tax revenues to a local economy due to the multiplier effect. This multiplier effect, when applied, increases the above total by a factor of 3.

Mr. MAGNUSON. There is another cost added to the whole thing, when we have unemployment in this country. Now I am going to take the whole group, and this comes from not only the Department of Commerce but also the Department of Labor, and I want to put in the RECORD the cost of finishing the prototypes, the potential profit from sales, and the number of direct layoffs. It runs into a total of almost $360 million. Mr. President, I ask unanimous consent to have this material printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

Cost of finishing prototypes: $477,000,000.

Direct layoffs: 14,000 (times 3) total, 42,000.

Average annual salary/wage: $12,000 ($5,005,000 total).

Federal, State, and local taxes loss (32 percent salary): $3,850 annually per employee. (Wall Street Journal and Washington Post).

Welfare/unemployment costs: $3,000 annually per employee.

Total loss per employee: $6,850 annually.

Average aerospace layoff time: 18 months (Wall Street Journal).

$42,000 times $6,850 times 1.5 years equals $436.6 million.

$477 million minus $436.6 million equals $40.4 million equals 20 cents per capita.

Potential profit/capita divided by potential loss per capita equals $34.31 divided by 20 cents equals 170.1 odds.

Mr. MAGNUSON. I also have a statement on the potential per capita profit on the SST and the potential loss and some other figures on that point. Here is one figure we have never considered.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. MAGNUSON. I yield myself 2 additional minutes.

The distinguished Secretary of the Treasury testified at some length, in clear and concise testimony, on the balance of payments involved in this matter. The conservative figure that we are talking about is at least $22 billion in our balance-of-payments account.

I invite the attention of the Senate to

the fact that the United States now imports more than it exports of ships, movies, cameras, optics, consumer goods, food beverages, and automobiles. Its greatest export item, the most salable item we have had for 10 years, cash on the barrelhead, has been airplanes. We have sold abroad almost $11 billion worth of airplanes in the last 5 years, cash on the barrelhead, and this has been the difference.

One SST—just one—sold overseas would offset the import of 20,000 Volkswagens and 200,000 Japanese TV sets. This is something to consider in this matter, too. I want to put that in the RECORD.

Also, I have more answers by eminent scientists to what I think have been irresponsible statements regarding water vapor, ultraviolet rays, and other matters. I ask unanimous consent to have this material printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

SIMPLE SUPERSONIC TRUTHS

SST AND ATMOSPHERIC MOISTURE

Critics speculate that SST operations may affect the moisture balance in the stratosphere, 12 miles above the earth.

One large thunderstorm puts as much water vapor into the stratosphere as an entire fleet of SSTs making four flights per day. But there are 3,000 to 6,000 thunderstorms active around the world continuously.

Is it really reasonable that the SST fleet could affect weather?

HOW TO PAY FOR IMPORTS

The United States now imports more dollars than it exports of: ships; movies, cameras, optics; consumer goods; steel; food, feed, beverages; and automobiles.

Its greatest export item is aircraft, engines and parts.

One SST sold overseas will offset the import of 20,000 Volkswagens or 200,000 Japanese TV sets.

OZONE, ULTRA-VIOLET AND SST'S

There have been irresponsible statements that water vapor from SST exhausts will decrease the atmosphere's ozone content and thereby increase ultra-violet radiation at the earth's surface. Some have carelessly added that this could increase skin cancer in man.

FACTS

1. Measurements of high-altitude ozone over Caribou, Maine showed that, during a two-week period, the natural ozone content varied over sixty times as much as calculations would predict for a fleet of 500 SSTs operating over a two-year period.

2. At the single weather station which has measured both water vapor and ozone content, water vapor has increased 50% (from 2 parts per million to 3 parts per million) from 1963 to 1970, but the ozone content has increased (about 5%) instead of decreasing.

3. The MIT Study of Critical Environmental Problems (SCEP) group has stated—"that the reduction of ozone due to interaction with water vapor or other exhaust gases should be insignificant."

COMMENTS OF DR. WILL KELLOGG

(Director, Laboratory of Atmospheric Sciences to House Subcommittee on Transportation Appropriations, March 3, 1971, in reply to statement of Dr. James McDonald that a 1 percent decrease in ozone can result in a 5–10 percent increase in skin cancer.)

1. The 1–2 percent change in ozone predicted for a 500-airplane SST fleet compares with 50–75 percent fluctuations from day to day, season to season and place to place.

2. This change is equivalent to going from sea level to Denver or going about 50–100 miles north or south.

3. If Dr. McDonald is right about his skin cancer estimate, you can reduce your exposure the same amount—if you go out in the sun every day of your life—by wearing a hat for one day during your life.

4. If you only go out in the sun on weekends, you would get the same result by wearing a hat once in 200 years.

5. If you like to sit on the beach, you would get this reduction by covering your bikini with a bath robe about once in 2,000 years!

"It seems to me that this kind of thing puts the McDonald type of argument into perspective."

SST "POLLUTION" OF UPPER ATMOSPHERE

Calculations indicate that a 500-airplane fleet of SSTs could add something less than 1 percent to the natural "background" of particles in the upper atmosphere—oil companies advise they can remove 80 percent of the sulfur content of present jet fuels, if that's what's wanted.

But, the two scientific measurements made of natural particulates at the altitude vary by 30 fold, a difference of 3,000%.

And, one major volcanic eruption ejects more material into the upper atmosphere than a fleet of 50,000 SSTs!

SST opponents have fantastically exaggerated the possible effect of a 500-SST fleet, much less the effect of the present program, which is limited to two prototypes!

THE SST AND CARBON DIOXIDE

Critics contend that a fleet of SSTs flying at high altitudes could increase carbon dioxide in the atmosphere and, through the "greenhouse effect," increase the earth's temperature. (Like glass in a greenhouse, carbon dioxide should let in the sunlight, but hold in heat reflected back from the earth). Theoretically, it should work that way. But—

1. A 500-airplane SST fleet would affect the world's carbon dioxide by less than ½ of 1%.

2. Man's total effect on the world's carbon dioxide throughout history has been small; it is known that the earth's carbon dioxide has increased over the past half century.

3. However, the earth's average temperature is presently decreasing rather than increasing.

4. The MIT Study of Critical Environmental Problems (SCEP) group concluded, "Based on these calculations, we have concluded that no problems should arise from the introduction of carbon dioxide and that the reduction of ozone due to interaction with water vapor or other exhaust gases should be insignificant."

SST'S WILL DECREASE CONTROLS

SST opponents have frequently pointed fingers without checking the facts, even cursorily.

They suggest that SSTs flying at altitudes of 60,000 feet and up, above most of the atmospheric turbulence, will blanket some regions with contrails. But the facts are—

1. WWII bombers sometimes flew high enough to produce contrails.

2. Present jet aircraft cruise at altitudes between 30,000 and 40,000 feet where, at normal temperatures, contrails usually occur.

3. At SST cruise altitudes the temperature is practically never low enough for contrail formation.

4. In more than 200,000 hours of supersonic military operations above 60,000 feet, there have been NO reported observations of contrails.

Replacing subsonic jets with supersonic transports will decrease contrails.

SST MANPOWER AND WAGES

Over a ten-year production period the U.S. SST program will provide one billion, forty million manhours of work and will pay at least four billion, eight hundred million dollars in direct wages to U.S. workers.

POWERFUL CAN BE CLEAN

A brand-new car (even an economy import) with all the latest anti-pollution equipment, creates more pollution per mile than—this SST smokeless engine which, at nearly 100,000 H.P., is the world's most powerful!

Mr. MAGNUSON. Mr. President, the case is far from complete on the environmental aspects of the SST. Contrary to press reports and sensational charges before congressional committees, no valid scientific concluusions have been reached concerning possible effects on world weather and climatic hazards, including any increase in ultraviolet radiation.

A panel of nationally eminent scientists appointed early this year by Secretary of Commerce Maurice Stans to study possible environmental concerns associated with the proposed supersonic transport met just last week in Boulder, Colorado, to organize a study that is expected to take at least three months.

The panel includes: Dr. Frederick Henriques, photochemist, Technical Operations, Inc.; Dr. Harriet L. Hardy, M.D., assistant medical director, Massachusetts Institute of Technology; Dr. Joseph Hirschfelder, chemist, Theoretical Institute, University of Wisconsin; Dr. Paul P. MacCready, Jr., meteorologist, Meterological Research, Inc.; Dr. Thomas Malone, meteorologist, University of Connecticut; and Dr. Richard S. Miller, ecologist, School of Forestry, Yale University.

Liaison members are: Capt. Hugh Albers, U.S. Navy, Department of Defense, Pentagon; Dr. Stanley Greenfield, Environmental Protection Agency; Dr. Lester Machta, NOAA Environmental Research Laboratories; Dr. Richard Strombotne, Department of Transportation; Dr. William Kirchhoff, National Bureau of Standards; Mr. Richard Broun, Department of Housing and Urban Development; and Mr. Martin Prochnik, Department of Interior.

In addition, the panel has invited 19 interested scientists from a wide range of disciplines to contribute input.

In announcing the panel February 3, Secretary Stans charged the group with determining whether existing research efforts, here and abroad, plus the Department of Transportation research program, are adequate to produce definitive and timely answers to pressing environmental questions. He cautioned:

The environmental aspects of supersonic flight have received major attention and million of dollars of research attention over the past 12 years, he said. Based on information from past and ongoing research, no significant effects on the weather and climate due to the SST program have been identified. However, in the absence of complete data, and because sufficient uncertainties exist, I believe that additional information should be obtained and analyzed.

Mr. GOLDWATER. Mr. President, will the Senator yield?

Mr. MAGNUSON. I yield to the Senator from Arizona such time as he requires.

Mr. GOLDWATER. I apologize to the Senator from Iowa and the Senator from Wisconsin for seeming to presume on their time, but I did not want the statement Senator PROXMIRE just made, relative to scientists, to go unchallenged.

Mr. President, I want to bring to the attention of the Senate today the strong endorsement of the U.S. SST prototype development program by the Executive Committee of the American Institute of Aeronautics and Astronautics—AIAA—the premier professional society in the U.S. aerospace field, with 32,000 professional members and 6,000 student members with 118 student branches on university campuses.

After an independent assessment of the SST program conducted by an AIAA ad hoc committee composed of technical experts having no connections with the SST, a report of findings was published on March 1, 1971.

The AIAA's conclusion was:

Current plans advanced by Department of Transportation for the United States supersonic transport (SST) prototype program are reasonable and proper and in the best interest of this Nation.

The ad hoc committee examined the program broadly, from the performance, operational, environmental, and economic viewpoints, taking strong note of foreign SST developments and capabilities.

Some key findings leading to the general conclusion were:

First. Prototype performance objectives are reasonable and within the state of the art.

Second. The prototype program will provide an adequate base for a successful SST.

Third. The expenditure of the Government funds required to complete the prototype program is warranted in view of the potential economic return of the production program.

Fourth. The production SST with its great gain in productivity will meet the demands for increased intercontinental air travel in the 1980's.

Fifth. The production SST in the first aircraft development to be dominated by environmental considerations, and its critics have made valuable contributions. Now the production SST will meet or better all engine noise specifications.

Sixth. The prototype flight test program will provide the needed environmental research and will not produce any equilibrium environmental changes.

Lastly, the AIAA report cautions:

Abandonment of the United States' SST program could lead to ultimate takeover of the U.S.'s traditional civil aircraft dominance by foreign interests.

Mr. President, I put that in the RECORD at this point so that the record might be kept straight. The people who really understand this field, who have been in this field as professionals all their professional lives, endorse the SST. The scientists cited by the opponents are eminent men, admittedly, in their fields, but I know of none whose names I have heard with the qualifications of the AIAA.

Mr. PROXMIRE. I yield myself 1 minute, in response to the distinguished Senator from Arizona.

I listened very carefully to what the Aeronautic Association said. Obviously, they are for the SST. They are for a Government subsidy of the aircraft industry to the extent of a billion dollars or more. It would be a stunning shock if they were not for it.

Mr. GOLDWATER. Will the Senator say why?

Mr. PROXMIRE. They do not submit one bit of evidence that the two prototypes flying 100 hours are going to give us the answers on the environment.

I yield 20 minutes to the distinguished Senator from Iowa.

Mr. HUGHES. I thank the distinguished Senator from Wisconsin.

Mr. President, subsidizing the supersonic transport represents bad ecology, bad economics, the wrong priorities, and a challenge to the very integrity of the Government of the United States.

Congress is now being asked to add some $425 million to the $846 million already spent in subsidizing two prototype SST's. The question is not whether there should someday be an American SST but whether we should force-feed the technology and develop and build an SST—and eventually a fleet of 500 of them—before the private sector is ready to finance the undertaking, and hence whether the taxpayers as a group, rather than the travelers who will gain from supersonic speeds, should pay for its development.

I am not going to stress the ecological aspects of the SST. That has been amply covered in the debates over the last 6 months. Let me merely say that although the SST may not be as bad as some people fear or, indeed, it may pose a grave threat not only to our desperately needed interludes of quiet but even to the climate of our planet, even those who believe that it will not be very bad agree that it will not be very good. No one says it will help solve our environmental problems.

Whatever the uncertainties about the ecological aspects of the SST, its economic consequences are clear: it promises to be an economic disaster. If it were a good investment, if it were a good risk, there would be no need for Government subsidy. To argue that an investment of $1.3 billion is beyond the capability of America's private financial institutions is utter nonsense. The prototype cannot be financed by American business only because to do so would be bad business.

The SST may even be bad business for American aviation. It is inefficient and costly, and the airlines of the United States have unprecedented debts and huge operating losses. The last thing they need is a new uneconomical aircraft that will speed the obsolescence of their present fleets and raise their capital charges further. But the future prospects are worse. The SST is not realistic technical progress. In the past, new aircraft introduced through the ingenuity of the American aircraft industry have not only brought increased speed, range, and comfort, but even more important, they have brought reductions in the cost of flying. Not so with the SST; it will increase cost per seat-mile. Consequently, unless taxpayers are called upon for further subsidies, air fares will have to be higher than they would otherwise be. The higher air fares, the less the air travel; hence, the fewer the airline jobs, eventually the fewer the aircraft produced, and perhaps fewer aircraft industry jobs too.

The SST is not, as it advocates protest, a good way to maintain or create jobs. It is true that the additional $425 million Government expenditure will support employment, but any half-billion-dollar expenditure would do the same thing, and there are many ways that half a billion dollars could create more jobs than would subsidizing the SST. The basic way for the Government to support employment is to get the economy back on the track—not to use the aerospace industry as a welfare agency, in disguise.

The industry and the FAA representatives have persistently argued that the SST should be supported because it would have balance of trade benefits. However, in the long run, the forces of international commerce and finance tend to induce shifts in trade, price levels, and other economic relationships so as to remove imbalances in international payments anyway. Any so-called favorable balance-of-trade impact of the SST will certainly not occur much before the end of the decade. In the meantime, its effects will be adverse—it will contribute somewhat to inflation, and hence to encouraging imports; more directly, it will probably discourage the exportation—and production—of other commercial aircraft. No independent economist of national stature accepts the balance-of-trade argument, and leading economists of widely divergent political persuasion have categorized it as "a complete 'red herring' "—Friedman—or "If the Government is foolish enough to want to spend $1.2 billion in subsidizing uneconomic exports, it can get much better value for its money than by buying a lottery ticket toward what may improve our balance of payments by 1978 to 1990"—Samuelson.

Even if the U.S. SST were not an ecological threat and a potential economic catastrophe, no one can argue that it is a matter of high priority. When its advocates say that it would eventually support hundreds of thousands of man-years of employment, they are right—just as would any comparable expenditure. But that also says that it will cost hundreds of thousands of man-years of labor. They are saying that those hundreds of thousands of man-years of labor—many of them highly skilled—will not be available to move into the production of the goods and services needed to provide adequate housing, mass transit, better health service, better education, cleaner water, purer air. When the Government is simultaneously trying to fight inflation, return to prosperity, improve the quality of life, and prevent gargantuan growth of bureaucracy, subsidizing the SST has low priority even under the most optimistic assumptions about its benefits.

Yet there is a clear danger that the Government of these United States cannot extricate itself from the forces converging upon it to impose this program on the taxpayers. The aircraft companies, the airlines, and their trade associations, with some of their associated unions, have converged upon Washington with massive and diverse pressures.

They have lobbied incessantly in both Houses of Congress. Representatives of Boeing and of General Electric have made innumerable visits to Congressmen and Senators and their staffs.

They have been reinforced by trade association executives, and by scores of expensive special-interest lobbyists associated with aviation. Together they have put forward reasonable arguments, unreasonable arguments, and entirely ludicrous arguments.

Mr. JACKSON. Mr. President, will the Senator from Iowa yield at that point?

Mr. HUGHES. I yield.

Mr. JACKSON. I was curious why the Senator failed to mention organized labor in his statement on lobbying efforts.

Mr. HUGHES. I think I did mention it.

Mr. JACKSON. The Senator did mention it?

Mr. HUGHES. I said together with some of our associated trade unions.

Mr. JACKSON. The AFL–CIO, headed by George Meany, made a very substantial effort on behalf of this program. I assume the able Senator from Iowa is not objecting to Mr. Meany's efforts on behalf of this program?

Mr. HUGHES. I am a recipient of the lobbying efforts of the AFL–CIO.

Mr. JACKSON. I do not believe that there is anything wrong with that effort to speak for labor. Who has lobbied on the other side?

Mr. HUGHES. I would have to get the names of the individuals. I do not have that present with me in the Chamber at this moment.

Mr. JACKSON. The Senator will say that there has been very active lobbying against the SST, though?

Mr. HUGHES. I would certainly suggest that there has been, yes.

Mr. JACKSON. And they have spent money?

Mr. HUGHES. I am sure that they have.

Mr. JACKSON. The Senator is aware of George Meany's testimony——

Mr. HUGHES. Yes.

Mr. JACKSON. Before the Appropriations Committee, when he pointed out that the Russian Government, for one ad, covering two pages, spent $7,000. Is it not fair to say that there is a lot of lobbying going on on both sides on this effort?

Mr. HUGHES. That is always fair on critical issues that face any State legislature or the Nation or that face Congress. I do not attempt to say that there has not been lobbying on the other side.

Mr. JACKSON. Yes, but I do not know of anyone who has stood up in opposition to the SST and said anything about the big Russian ads in Aviation Week magazine.

Mr. PROXMIRE. Will the Senator from Iowa yield right there?

Mr. HUGHES. Well, I would hope that the distinguished Senator would be able, on his own time, to make a speech on his statement.

I yield now to the Senator from Wisconsin.

Mr. PROXMIRE. Does it not strike the Senator from Iowa as weird for anyone to say that the ads the Russians took to advertise their plane is an effort, somehow, to oppose the SST? That ad has been used over and over again on the floor of the Senate, an argument for the SST. If we read the Washington Post's article, the one the other Senator from Washington put in the RECORD a few minutes ago, what does that say? It says that what the Russians are anxious to advertise the SST to get us to go ahead with the SST, too, and then they could lobby with their own people to go ahead with their own plane.

Mr. JACKSON. Is the Senator denouncing George Meany?

Mr. PROXMIRE. No. He is a great man. He is a great leader. But he is wrong on this issue. All of us can be wrong at times. He is wrong on this one. I would not denounce him, of course, but I think he made a mistake, and he made a real one on this one.

Mr. GOLDWATER. Mr. President, will the Senator from Iowa yield?

Mr. HUGHES. Mr. President, I would like to have this colloquy take place at the conclusion of my speech, since it completely distorts the meaning and the thrust of my speech.

I yield now to the Senator from Arizona, but I do not wish to use up all my time on colloquy. I have a limitation on time on the amount of subject matter I would like to get into the RECORD.

Mr. GOLDWATER. I should like to ask the Senator if this would not be a proper place to put a little bit of evidence in the RECORD.

I am a member of the Sierra Club. Lo and behold, when I was in Arizona last week, I received my monthly bulletin, and what was in it? What did I see? I saw the smiling face of the distinguished Senator from Wisconsin (Mr. PROXMIRE) in a photograph, with a little bit of information reminding me that the SST is on the skids.

That is nice lobbying. I do not object to any of that. I would like the Senator to put my name on his mailing list and I would appreciate it, but I do not like to see it in my Sierra Club bulletin. [Laughter.]

Mr. HUGHES. Mr. President, my line of thought has been disrupted again but I would like to return to my speech when I yielded to the Senator from Washington and discuss the main thrust of what I was saying.

They have threatened and cajoled, they have exaggerated the dangers of unemployment in district after district and State after State, as if spending on the SST were the only way to maintain or create jobs.

They have made economic arguments that fly in the face of the most basic economic principles. In the name of free enterprise, they have begged for socialized support of one of America's great industries. They have attacked legitimate fears about noise, sonic boom, and atmospheric disruption as myths. They have abused facts and statistics.

It is impossible to exaggerate the importance of these tactics in pursuit of government largesse for a purpose that is virtually devoid of redeeming social value. They are debasing our pluralistic system.

They have pressed their particular technocratic interests upon each legislator. Every legislator has the responsibility—a vital responsibility if representative democracy is to survive—to represent the common good of all his constituents and of the American people as a whole. Yet this enormous lobby, which itself claims that only 0.2 percent of existing jobs are at stake, is demanding that their particular interests be served at the expense of 203 million Americans.

One must expect pressures in our system. One must expect and even welcome forceful, honest, tough lobbying. I have no argument with that, as I indicated to the Senator from Washington. But just as the anarchist who presses basic civil liberties to destructive extremes thereby jeopardizes the preservation of those very liberties, this lobbying is going so far as to raise legitimate doubts about the ability of Congress as a whole.

The pressures go beyond lobbying. Some aviation interests have undertaken retribution against political leaders who stand up against them. The most blatant case is the effort to get aerospace centers to boycott Wisconsin cheese because Senator PROXMIRE has been deeply involved in the fight against the SST.

Aerospace lobbying goes beyond the direct approaches to Senators and Representatives. They have launched an enormous propaganda campaign. Radio stations repeat again and again slanted spots, spots that distort and deride anti-SST arguments and pose half-truths or irrelevancies as retorts. The Orwellian iteration and reiteration of emotion-laden trivia is itself distasteful and ominous. The spots end by urging listeners from all over the country, if they believe the sponsors' slogans, to put still more pressure on their Congressmen.

Some of the pressures put upon members of Congress suggest retaliation for a vote against the SST. But in the private sector there are indications of the same kind of morality at work. The Boeing Airplane Company has made thinly veiled threats that firms associated in any way with aerospace activities must support the SST—presumably, to keep on the good side of that giant of the industry with its billions of dollars for subcontracts.

Recently Boeing sent a circular to several thousand companies, addressed as "suppliers and subcontractors to the aerospace industry," pressuring them to pressure Congress for the SST. It is an amazing document. It urges:

> Don't overlook the tens of thousands of people who work for companies such as yours. You and your people are encouraged to join with us . . . This can best be done by (making) your representatives in Washington, D.C. aware of your position. Employees should write their Congressmen—then contact their personal friends and relatives with encouragement for them in turn to join this effort. Company management assistance is vital to stimulate this action and your personal efforts are requested . . . Past efforts of mail campaigns proved very effective during late 1970—Your company with several thousand others is being asked to assist.

Then, just in case some unsophisticated supplier did not fully understand

his position, the memorandum closes with:

We trust you will react with personal effort. Feedback regarding your company's activities for support is very important for over-all assessment. It will be very much appreciated if activity status is forwarded to the following address.

There is an interesting footnote to this effort to pressure suppliers to pressure their employees to pressure the Government. It is this: the Government could be paying much of the cost of the maneuver. Here is how it works: "The company management assistance," as well as the time of company clerks, mailroom staffs, Xerox operators, and the other effort spent on the job in behalf of this lobbying effort probably is charged to overhead. And in its cost-plus-fixed-fee contracts, which are the life-blood of the aerospace industry, the Government could pay the overhead:

There are other threatening aspects of the SST caper. President Eisenhower, at the end of his Presidency, warned America against the dangers inherent in the burgeoning military-industrial complex. There is a danger that comparable, unwholesome Government-special interest syndicates will grow wherever Federal bureaucracies provide vast sums to particular groups over long periods. If that happens the consequences for the functioning of the representative democracy can be far-reaching. Congress should be able to rely largely on the executive branch for reasonably accurate and unbiased expert opinion in technical areas. The executive is, after all, theoretically responsible to the Nation as a whole, but experience with the SST shows many signs that the relevant Federal agency and the industry it is supposed to regulate and support do anything but deal at arm's length. And the testimony and deportment of the FAA flunk the test of objectivity.

In its testimony the FAA has followed the industry's line and position point by point. It has derogated the opposition rather than dealing seriously and objectively with its concerns. Mr. William Magruder, Director of Supersonic Transport Development, has carried with him to his Government assignment his point of view, his experience, his aviation background, he could hardly be expected to look objectively at the elegant new vehicle whose development has been entrusted to his care. No one need question his sincerity, but he appears before congressional committees not as an objective Government administrator committed to the economic and social well-being of the Nation as a whole, but as a man steeped in the lore of one industry, with whose fortunes his own fortunes, as they have in the past, rise or fall; he comes before Congress not as a rational balancer of pros and cons but as an advocate.

His testimony has again and again made the aerospace industry's case. But it has not made it in a competent, objective, analytically sound way. In my opinion, he has made the case as one trying to sell his particular point of view. It has made the case as propaganda. I will not detail the deficiencies in his recent testimony here. But I shall only deal with this one question of whether in his role as a high Government official, Mr. Magruder is in fact presenting special interest rather than public interest argumentation. One expects an agency head or any other senior official to be committed to his own programs and to argue to increase his own budget; when he discusses expenditures for the interest of a particular portion of the private sector, the situation is quite different, however.

His March 1 testimony followed the industry's ploy of trying to indicate that the United States is trapped into subsidizing the SST. He describes the trap as the near certainty that foreign supersonic transports will be produced, will be economically viable and will force large slashes in American aircraft sales. That alleged chain of events would both curtail the aircraft industry and its employment and would drastically reduce our export trade balance and impair America's world prestige and its technological leadership, according to the argument. In effect the United States has allegedly lost its opportunity for free choice: Unless we spend immediately nearly another half billion dollars the Nation will suffer dire consequences.

This is not an entirely absurd argument on its face, although I certainly think it is a wrong argument. What is important is that every step of the argument is debatable and problematical. Yet the FAA gives no objective even-handed treatment to the uncertainties or counter arguments, but instead treats uncertainties as if they would all be resolved favorably and ignores or derides opposing arguments. Further, the FAA introduces arguments that are simply unacceptable. The balance of payments argument is a case in point. For months competent economists have pointed out that the argument has no place in the SST discussion; yet the FAA continues to present it and to do so in an erroneous way. Similarly, Mr. Magruder's testimony is misleading in its emphasis on what he calls productivity, on the relationship of the SST to airport and airway congestion, on the use of many of the cost and other estimates associated with the prototype program and the eventual operation of a United States SST.

It appears clear that within the Administration, the FAA has succeeded in carrying the day for the aerospace industry's position on the SST. Only last summer and fall there was healthy controversy within the Administration; some departments and agencies pointed out problems and doubts and to varying degrees dissented. This is explained by Mr. Magruder on the grounds that the administration now unanimously accepts the idea that the Concorde will be not only operationally practical but economically competitive. During the past several months the Concorde has been successfully test flown at supersonic speeds, but in the same period estimates of its payload and range characteristics have deteriorated, its expected operating costs have risen, and several major airlines including Pan American, TWA, and even British Overseas Airways have publicly expressed doubts about it. Last November British Aircraft Corporation admitted that it would cost 36 percent more per seat-mile than present subsonic jets.

The industry and the FAA assert that the SST will never be allowed to fly at supersonic speeds over populated portions of the United States. The value of the domestic market to operators of a high-speed long-haul aircraft is compelling. Is it imaginable that 10 years hence, if the SST should be operational, the then presidents of the Air Transport Association and the Aerospace Industries Association will appear before Congress to argue that the ban on overland supersonic flights should be preserved even though its removal would be highly profitable to airlines and manufacturers alike? Where will the FAA stand? Now it is opposed to legislation that would ban such flights.

The PRESIDING OFFICER (Mr. COOK). The time of the Senator has expired.

Mr. PROXMIRE. Mr. President, I yield 5 additional minutes to the Senator.

The PRESIDING OFFICER. The Senator from Iowa is recognized for 5 additional minutes.

Mr. HUGHES. In the past it has made public commitments to stand up against the pressures of aviation interests. It committed itself, for example, to keep jets out of National Airport; then when jets were allowed to come in, the FAA was going to preclude big jets. Now that big jets have been operating at National, the FAA is going to determine whether such operation has had adverse effects not on local residents or on the air travelers but on other airports.

Other things could be cited to suggest that here is a case where the executive, through one of its major agencies, is subservient to a high-technology special-interest group. I shall mention only one more: the contract between the Government and the prime contractors. According to Mr. Magruder's testimony, it would cost the Government more than half as much to cancel the contract as to continue with it. I am told that some figures presented by Secretary Volpe total about $115 million in cancellation charges. If Mr. Magruder's figures are exaggerated why would he use them? I think it is clear that this is more of the effort to place Congress in a position where it is trapped, where there is no way that it can do much to cut down the program's costs no matter what it does. Who engineered a contract that would lay such a trap—or even present the appearance of such a trap? The FAA. Such a contract, involving either a $115 or a $300 million penalty clause, does not sound like the product of arms-length bargaining.

THE REAL ISSUE

The issue of the SST rises above the questions of ecology and economics, important as these are. It gets to the heart of the question of whether the Congress of the United States can, in the face of the full exploitation of the media and the technology mystique, act in the interest of the whole of the American people.

Now, let us look, in summary, at where we are in March 1971 with respect to both the SST and the broad social and political context of this controversy.

With regard to the SST we are presented with a proposal to appropriate some $420 million for the remainder of this fiscal year and next in order to build two prototypes for the SST. This is almost certainly throwing good money after bad. The SST is not a good enough risk to get private financing from the richest money market in history. It is even uneconomic for the airlines. It is not a good instrument for sustaining employment. Its balance of payments effects are uncertain; any "favorable" ones will be delayed for nearly a decade, and are fundamentally a "red herring" anyway. The aircraft might be an ecological disaster; it probably will cause some environmental damage and it certainly will do absolutely nothing to help solve our environmental problems. The subsidy is a proposal to tax the average taxpayer to benefit a small relatively wealthy fraction of the population. There are no unambiguously good arguments for the SST program.

But the program has had massive, persistent, support from a syndicate of aerospace corporations and technocratic Federal officials. They have coordinated their lobbying. The lobbying has employed the highest pressure tactics; it has been biased, dissembling, emotional, inaccurate. Industry tactics have included a propaganda campaign, concealed threats, and open efforts at retaliation. The interlocking interests of FAA officials and the areospace industry have led to the development of a coordinated effort to box in the Government of the United States, through presenting an exaggeration of the threat of foreign commercial dangers and developing a contract that the FAA argues is such that little money would be saved by terminating the program now when only two-thirds of the planned Government expenditures have been made. Within the administration as a whole it appears that all opposition and serious doubts have been suddenly dispelled or abruptly silenced.

That is the SST situation.

This situation has arisen at a time when the American system of representative democracy is under severe attack from extremes of both left and right. There are vociferous partisans who protest that the Government is neither representative nor democratic; that the national policy and economy is in reality run and manipulated not for the people as a whole but for big business, for "the establishment," or for monopoly capital. They charge that the workings of Congress and the executive branch are determined by the dictates of a small oligarchy of wealthy industrialists intimately interlocked with finance, education, big labor, and above all Government; that this oligarchy is driven by the relentless forces of an uncontrolled addiction to technology, irrespective of human values; that there is no effective force in the country countering this syndicate, that Government is its puppet, helpless to extricate itself from the tentacles that grasp it from every angle.

This is a picture of America that is widely accepted among our young people, it is a picture that is reflected again and again in contemporary theatre and literature, it is a picture that has grown tremendously in its appeal in recent years. It is in my opinion still a false picture of America. Despite the ubiquity of pressure groups there is in my view some balance among them; our Government is still manned by many individuals concerned with promoting the general welfare.

But if Congress at this time approves the SST it will in doing so do three other things. It will provide the critics of the American system with an important piece of evidence that they are right. It will prove that at least at this time in this one area the system is in fact run by a syndicate of industrial and governmental partisans. It will carry the Nation closer to the day when the evil picture of America is in fact a true representation of our country.

Mr. President, I thank the distinguished Senator from Wisconsin for yielding.

Mr. PROXMIRE. I thank the Senator for an excellent speech.

DOLLARS AND SENSE

Mr. BELLMON. Mr. President, the Senate has spent many hours debating the question of the supersonic transport plane. But when all is said and done, and regardless of what action the Senate chooses to take, there will be an SST. The only question is whether Americans build it or whether Americans ride in planes built in other countries.

So let us look at this matter from the financial point of view. It really comes down to a dollars and cents proposition; or in view of some of the doubtful arguments that have been raised by the opponents, perhaps a more appropriate term would be "dollars and sense."

Disregarding long-range production of an SST, and limiting our considerations only to the developmental aspects, several factors should be carefully considered.

The total estimated cost of the program to develop two prototype aircraft, a program which was begun 9 years ago, is $1,342 million, of which $864 million already has been spent. Even if the program is terminated as of March 30, the Government would still be required to pay between $97 million to $178 million in additional costs, just to stop the project two-thirds of the way through to completion.

These figures represent only the Federal Government's investment in this effort to maintain this Nation's position of leadership in air transportation. In addition to these funds, the aerospace industry and commercial airlines also have invested heavily for the development of a safe, clean, economically feasible supersonic airliner.

To date private capital in the amount of $403 million has been invested. Of this amount, $215 million has come from Boeing, $59 million from the airlines—as risk capital—$94 million from General Electric, and $25 million from subcontractors.

If the current development phase is completed, another $381 million will be supplied by industry sources.

In the development phase alone, 23,600 are employed in primary industrial jobs. An additional 48,616 jobs are indirectly involved, for a total of 72,216 jobs.

This represents an annual payroll of $697,680,000. Even using the low level average tax liability of 22 percent, the return to the Federal treasury on this payroll alone will amount to $153.5 million, more than half of the appropriation in question. The second year would more than repay the $290 million expenditure.

Discontinuation of the prototype program would lead to additional Government costs in welfare and unemployment benefits. Aviation workers would not go directly on welfare but would cause downward movement throughout the labor force. Average costs of these benefits, plus administrative overhead, is $3,949 per year for each unemployed person. Multiplied by 72,216 employees who without the prototype program would be out of jobs, the additional cost of this additional unemployment to the Government would be $283.3 million per year. Adding the $153.5 tax income to the prospected Government costs of adding to the unemployment rolls we find that the total loss to the Government would amount to $436.8 million. U.S. invests $290 million—almost $150 million better off by end of first year.

It is obvious, then, that the cost of not carrying through the prototype program would result in direct welfare and unemployment costs which in just one year would equal the appropriation being sought.

Mr. President, in view of the amount of tax payments being made by present jobholders, and the costs that would result from welfare and unemployment benefits for these men and women if they lose their jobs, the economic gains of following through the prototype program far outweigh the costs. In the meantime, valuable scientific and technical information will become a part of our knowledge resources, and the United States will continue its dominant position in world aviation.

For my part, Mr. President, I think it makes much more sense to keep these workers gainfully employed and productive contributing citizens rather than forcing them to become unproductive burdens on our social welfare system.

In my opinion there is only one conclusion for the Senate to reach today, and that is to provide the necessary funds to keep this project on schedule and allow it to be completed. To do otherwise would be a disastrous step backward.

Mr. PACKWOOD. Mr. President, in January I sent a questionnaire to the registered voters in 27 of Oregon's 36 counties. One of the questions was:

Do you favor continued Government funding of the SST?

The response was as follows: 40,000 Oregonians responded and of those giving a yes or no response 76.4 percent answered no. This morning I received a questionnaire from an adviser to a political science club at McNary High School in Salem, Oreg. The adviser, Mrs. Lem-

ley, polled the club on all my questions. On the SST, the result was unanimous. All 20 students are opposed to the SST. I hope the U.S. Senate will accurately reflect the views of the Political Science Club at McNary High School.

Mr. HRUSKA. Mr. President, I rise in support of the continued funding of SST prototype planes.

Mr. President, I have received a great deal of mail both pro and con about the proposed supersonic transport. These letters carry as much conviction and sincerity as any category of mail I receive. I am sure that this is the case with the mail received by the other Members of Congress.

Unfortunately, however, my correspondence points up the fact that there has been a great deal of misunderstanding and even misinformation about the program as it affects the Nation technically, economically, and environmentally.

Perhaps one of the most common misunderstandings has to do with the belief by many people that the issue now before us is whether there should be mass production of the SST. This, of course, is not the fact. The immediate issue is whether enough money will be appropriated to finish construction of two prototype or test SST planes. The further fact is that if after they are built and have actually been flight-tested, they do not fulfill stated requirements, they will not proceed to manufacture. This is the plain and flatly stated position of the Nixon administration as testified to by Secretary John Volpe, of the Department of Transportation.

Mr. President, I concur with this policy and approach. I will oppose full production of SST unless it meets these requirements:

First. It must be safe.

Second. It must be economical.

Third. It must comply with prescribed antipollution standards.

Only actual field and test flights can decide these points. The pending measure in the Senate right now provides for funds which will enable completion of the two test SST planes. I favor and will vote for this measure.

This program, Mr. President, is one which started in 1962 under President Kennedy. That is when appropriations for the two test planes started. They total about $866 million to date. It will take about $478 million to complete construction of the two planes. But it would take about $335 million to terminate the program now. Hence, the net sum in dispute is the difference between these two figures, or about $143 million.

Opponents now seek to junk this project and abandon the large investment already made. A very pertinent question is: Why did they wait till this late date to take such an obstructive course?

Many of the reasons advanced against the program have been disproven. Some of them were groundless and without foundation from the outset. These opponents are opposed to the expenditure of the net difference of $143 million, pursuant to a plan and procedure supported by Congress since 1962.

Query: Are these opponents afraid that their fear arguments will be totally discredited if the actual flight tests occur?

Many objections stated have already been disproven. Noise is one of them. Fear of the sonic boom is dwelled on greatly. The fact is that SST engine plans have been improved so as to enable it to meet the 108-decibel sound level now laid down by the Federal Government on all big new airliners. Most jets now in intercontinental service do not meet this standard. But SST will do so.

Acceptable control of air pollution is also well near solution. It will be completely solved by the time the plane is completed. There is evidence that the SST will be cleaner and quieter than commercial jets flying today. It is estimated that one SST carrying 300 passengers at 1,800 miles per hour will emit no more pollutants per mile than three autos traveling at 60 miles per hour.

Various other claims against the SST based upon fear or conjecture, or both, bring to mind some of the fears expressed when General Yeager planned the first supersonic flight by man a few years ago. Some experts firmly predicted that he would disintegrate in flight, or even become a vegetable. Or that his bone marrow might mineralize. None of these things happened. Since that first flight men have gone to the moon—and come back.

When the Panama Canal was proposed some 60 years ago, some timid reactionaries afraid of the future, denounced the proposal. They argued that it was only for the benefit of a few New York-San Francisco shippers and merchants; that it would cost too much money, which could be spent for better purposes. Today snide references to the jet set take the place of the merchants and shippers. No comment is needed on the Panama Canal objections. Very little more, if any, is needed on jet set arguments.

To cancel SST at this point does not mean there will be no SST. It only means that someone else will build them, and sell them. Russia has announced two regular scheduled flights long distance and intercontinental, with their SST. They are advertising in American aviation journals their version of SST for sale "in any part of the world." The French-British Concorde SST prototypes are already flying and testing.

So the real questions—if SST meets flight tests—are: Will the United States build or buy SST planes in the future? Will the United States retain its aircraft industry superiority—it now makes 80 percent of the world's needs—or will it lose same to foreign powers? Will the United States enjoy and prosper with the 50,000 jobs to make SST planes and the added 150,000 jobs needed in SST-related industries, or will these jobs be exported to foreign countries?

Such jobs will produce the tax and other revenues which will enable the United States to continue many of its programs for human needs.

It is said the money for SST could be used for better advantage in the field of human needs. In the first place, jobs are the very essence of filling human needs. Second, the net amount in dispute on the pending measure comes to about $143 million. A goodly amount to be sure. But consider that the 1972 budget contains some $96 billions for human needs now. So the net amount in dispute does not loom too large relatively; and again: the ultimate 200,000 jobs will go a long way to filling many human needs and national income.

Approval of the pending measure will enable us to have all the facts needed to determine whether full production of SST should go forward. We should act upon firm, intelligent information.

I have faith in America's ability to make a sound decision as to full SST production when all the facts are in.

In the best interests of America, the present program to complete the SST prototype program should be finished. It would be a gross and dangerous mistake to refuse to conclude a task which Congress started in 1962, and which is so far along.

Mr. BEALL. Mr. President, whenever a controversial issue, such as the SST, comes before the Congress for consideration, each of us receives vast amounts of mail. This morning I received a letter from one of my constituents that made a special impression on me and I would like to share it with my colleagues at this time. Incidentally, I returned the check to the sender.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

BLADENSBURG, MD.,
March 22, 1971.

DEAR SENATOR BEALL: I heard yesterday that it would cost each American $7.00 to build the SST. I enclose my check for $7.00 with a hearty "Let's Fly!"

Never mind about the poverty, housing and education arguments against it. We have always had poverty. We have always needed housing and schools. That didn't stop us from moving from Kittyhawk to the 747.

America seems to have lost her sense of adventure, her enthusiasm for conquering new horizons. Our moon shots don't even excite them anymore.

Could the fault lie with the Congress, whose members seem to be going through life now staring at their feet. They seem to have grown old and quarrelsome. Not a very good example for the nation. The President certainly can't be blamed. His programs are innovative and he seems to be enthusiastic about them. He never panics no matter how bad the situation.

I urge you to vote for the SST and influence as many as possible to do the same and try to perk up that dead Congress!

Sincerely,

(Miss) GRACE V. MONTGOMERY.

Mr. BIBLE. Mr. President, how much time remains to the proponents and the opponents.

The PRESIDING OFFICER. The time remaining is 43 minutes for the proponents and 50 minutes for the opponents.

Mr. BIBLE. Mr. President, I yield 10 minutes to the distinguished Senator from Mississippi.

The PRESIDING OFFICER. The Senator from Mississippi is recognized.

Mr. STENNIS. Mr. President, I recall clearly the time when the concept of the SST was originated to military preparedness. The larger subsonic jet aircraft that commercial airlines now use originated from the research, development, testing, and engineering that produced our military planes. I refer to the B–52 and the tankers that go along with the

Boeing 707, and the later and larger commercial planes.

All of that research, development, testing, and engineering required years, but out of it came the weapon that spanned the gap and still does with reference to our security, our preparedness, and our military security—our so-called long-range bomber. We had another long-range bomber program, the B–70. However, in time, and before production, long before production, that program was canceled.

There were years when we had no advanced research going on, and no development, testing, and engineering in the supersonic plane. It was during that time when we had reached a policy decision not to have any more military planes that this commercial plane concept originated and was placed before Congress and adopted. That was one of the main reasons I supported it from the beginning. Subsequent facts have confirmed and restrengthened my views as to why we should continue with this program, especially since we have gone so far, because it is now the connecting link, and the only valid connecting link, in the research, development, evaluation, testing, and engineering that have gone on, and will go on for the next 2 or 3 years, with the big long-range bomber we have decided now we do need, the B–1, which has already been approved by the Congress. It is in the stages of early research. It has not reached development. It has not reached testing. It will be several years before it will reach those ultimate stages.

So the only program of substance going on now to fill this gap in the supersonic military and transport needs of our Nation—whatever they may be, and no one can be certain—is the SST.

So I think we would be making a bad mistake from the standpoint of preparedness to turn our back now on this plane, on the research and development into which we have put so much money, when we are on the threshold of either success or proven failure, and leave this void of several years before we will have any substantial progress on the new military long-range bomber. It is unthinkable to me that that would be sound even today.

I believe that so many other so-called issues, which I do not think are vital, have come into this matter and obscured the real picture. I believe that is where the main trouble is to be found.

So I urge the Members of this body who have not had an opportunity, especially those who have not been here long, to really get into the very insides of this problem from a military preparedness standpoint, to consider this point as a major one, and which should be the determining one.

Remember that we have no really follow-on bomber now to the B–52. We canceled out what little we had. We just have some paper bombers that will not be into the field of research like the SST is now for several years.

These sound like large figures, of course, and they are large figures to me, but when we go into the business of military and commercial planes, we have to talk in terms of millions of dollars. There is no way to avoid it.

Heretofore I had been chairman of the subcommittee that included consideration of the SST. In my judgment, they have done an exceptionally good job in their process of research, development, and testing. We have now our money's worth, so to speak. And now when we are almost reaching the ultimate base, as far as the elementals I have been talking about are concerned, it is just inconceivable to me that we would turn down our own project here, in which we have invested all these millions and millions of dollars—not counting what is in this bill, only $134 million—when we would need $340 million to reach home base so far as development, testing, and engineering are concerned.

It is inconceivable that we would turn our back on it now and throw it overboard and lose all this investment, plus the additional sum of termination costs, which have been estimated from various standpoints, but the lowest is $97 million, the intermediate figure is $119 million, and the highest one is $178 million. That is for termination costs. I do not think we should assume that liability, instead of paying the $134 million provided for in the bill, and then the $340 million additional, which will give us all the fruits, whatever they may be—and I think they will be substantial—and the benefits of the entire project up to the stage of production. Those fruits will certainly be a long, long step forward, according to all the arguments, in the field of commercial aviation, as one that will be necessary. I know it will be a long step forward as a connecting link for our necessary research, development, and so forth, in the field of long-range bombers, for military preparedness.

I do believe that the long-range bomber is one of our most important weapons. We must remember what it means, after all, to turn loose missiles. We would have to assume that they would all fire and all reach their targets, whereas the long-range bomber, with the same kind of weapons, is a powerful argument when it starts on its way.

So I hope we do not turn our back on this fine project, but have the faith that is necessary in all such projects, not only in commercial aviation but in military preparedness, to see it through and give it a solid vote, whereby we can settle this issue and be on our way.

I thank the Senator for yielding. I yield back such time as I may have left.

SCHWEIKER CITES ECONOMIC ARGUMENTS AGAINST SST

Mr. PERCY. Mr. President, the distinguished Senator from Pennsylvania (Mr. SCHWEIKER) has written an excellent article describing the reasons why he is voting against continued spending on the SST. The article appeared on the editorial page of the Philadelphia Inquirer today.

Senator SCHWEIKER's arguments regarding doubtful economic viability of the SST program parallel many of my own reasons for opposing the further appropriation of funds for the SST, and I ask unanimous consent that the Inquirer article be printed in full in the RECORD at this point.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

"FLYING WHITE ELEPHANT"—HIS VOTE IS NO ON SST

(NOTE.—Pennsylvania Senators Hugh Scott and Richard S. Schweiker were asked for their positions on the supersonic transport vote which is scheduled for today in the U.S. Senate. Senator Scott's statement was not received. Following is Senator Schweiker's reply.)

WASHINGTON.—Today I will be asked to vote on whether or not this country should continue spending millions of dollars to build two experimental supersonic transport airplanes. I intend to vote no.

Last year I joined the majority of the Senate in voting against the SST appropriation partly because of my concern with the environmental damage the SSTs could cause, but primarily because I am not convinced that this is an economically viable program.

A new element this year is a well-financed public relations and advertising campaign strongly urging SST funding, with major arguments being advanced that the industry can make the SST meet new environmental standards, and that it is essential for us to remain the international leader in the aircraft field.

New data on the SST, however, reinforces my economic concern. I will vote against the SST again to prevent the taxpayer from being saddled with a flying white elephant.

The total cost of the prototype program was originally to be $750 million. Currently, estimates are $1.3 billion, but with the well-documented history of cost-overruns in the military aircraft field, the price-tag could easily mount to $2.5 billion. At a minimum, the technological improvements which must be made to meet environmental objections, such as noise softeners, indicate increased costs for the prototypes.

Beyond the presently requested financing for research on the two experimental prototype planes, however, the Federal Government is likely to be asked to subsidize the production costs also. The aircraft industry is in perilous financial condition, with Lockheed suffering major losses because of the C5A and Rolls Royce in deep trouble.

Boeing has asked the taxpayers to finance the research and development, and I predict that similar help will be requested for production, running the total costs to perhaps over $5 billion.

First of all, how will the airlines be able to buy SSTs without federal aid? The twelve major U.S. airlines suffered financial losses of over $120 million in 1970, and anticipate losses of $192 million in 1971, and $279 million in 1972. The three major transatlantic airlines, the primary SST competitors, lost a total of $130 million themselves in 1970.

One SST alone will cost nearly $50 million, more than any airline made in profits in 1970. Some analysts are even now predicting we will soon see a "Penn Central of the airline industry."

The 747 costs half the price of an SST, requires less fuel to operate, carries more passengers than the SST will, and is more economical to fly, but even current sales of the 747s are declining seriously. If we force the airlines into another expensive round of competition with the SST, which they cannot afford, you can bet the government will be asked to pay the bill.

Secondly, however, British and French studies this year of the Concorde, their version of the SST, indicated that it will cost twice as much to operate the SST as the 747s. Since the airlines are already in financial trouble, if they begin operating SSTs at a loss they will undoubtedly be back to the public treasury for a hand-out.

Basically, this a question of national priorities for the taxpayers, because the result of SST funding will be higher taxes or cutbacks of other essential government programs.

I strongly favor using our limited resources for higher priority programs, such as mass transit, housing, education, and medical care.

The argument that we need the SST program to support employment in the country is deceiving at best. If we spend an equivalent amount of money on better programs, particularly involving domestic-use technology, we will provide just as many jobs, if not more, than the SST will. But in addition to creating jobs, this money will at the same time create productive projects beneficial to all citizens, not just a handful.

So, we have an aircraft program, researched, developed, and most likely produced, and operated by the taxpayer through government subsidies, to enable the few passengers who will pay the premium rates (higher than current first-class fares) of the SST to save a couple of hours of flight time. If this program was truly warranted economically, the private financial market would be willing to bear the risks of financing it.

After all, the American superiority in the civilian aircraft field was achieved by private enterprise, without direct government subsidies, and I do not think we should increase the already heavy tax burden of all our citizens for the benefit of an expensive, uneconomic airplane.

Mr. PROXMIRE. Mr. President, I yield 15 minutes to the Senator from South Dakota (Mr. McGOVERN).

SST: AN UPPER-CLASS EXTRAVAGANCE

Mr. McGOVERN. Mr. President, I want to take this opportunity to express again my opposition to continued Government funding of the civil supersonic transport program. I have long opposed the SST and am much encouraged by the House rejection of the program last week. Hopefully, the change in House sentiment which has occurred during the last year reflects an awakening to the contradictions which continue to stand in the way of the United States achieving the greatness we all desire.

I have never viewed the SST issue as particularly complex. Perhaps it is because as chairman of the Select Committee on Nutrition and Human Needs I have constantly been reminded of how much food the yearly SST appropriations could have provided for the undernourished poor of our Nation. The best available estimates indicate that from 12 to 14 percent of our population lives in abject poverty and more than 15 percent require some kind of nutritional assistance. These are people whose essential needs are not being met—people who live in substandard housing on deficient diets—people whose existence is further degraded by a high incidence of disease both emotional and physical.

Their needs are immediate and compelling. It is difficult to imagine any need less immediate and less compelling than the supersonic transport plane. SST's—American, British-French, or Soviet—are strictly snob appeal vehicles whose high fares limit their market to less than 3 percent of our population. It is small wonder that the taxpayers have revolted over the prospect of their money being spent on such an extravagant, upper-class gadget.

I am not going to take the Senate's time to reiterate the case against the SST that the Senator from Wisconsin (Mr. PROXMIRE) has so meticulously presented over the last few months. The economic and environmental objections to the SST program are well understood, primarily as the result of Senator PROXMIRE's diligence. But there are three aspects of the issue which I feel can be usefully discussed even at this late hour: First, the Department of Transportation's claim that 150,000 jobs are at stake in the SST prototype program; second, the effect of an operational SST fleet on the fare levels of subsonic jets; and third, the notion that the environmental questions concerning the SST have all been answered;

The Department of Transportation has been using its 150,000-job figure for years in its presentations to the Appropriations Committees of the Congress, but a careful reading of the hearings indicates that the figure is at best an estimate with very little solid research behind it. Moreover, it is a figure based not on the prototype program which we are considering today, but on the production program—a program which will not even begin until the last part of this decade. Any possible job payoff in the SST program is so far in the future as to be largely irrelevant in a discussion of the current unemployment rate. The prototype program involves at the most 13,000 direct jobs. It has been estimated that if the $290 million budget request for the SST were invested instead in low-cost housing, some 32,000 people could be employed this year. To really meet the problem of unemployment, we ought to be emphasizing Government support for labor-intensive projects such as housing or hospitals or schools rather than for the SST which channels so much of its funding into equipment and research.

The fact is that the SST is not a very good answer to the unemployment problem. It represents an effort not to create jobs but to create artificial demand in an industry which is running out of things to do. The Boeing Co. is presently faced with just the situation that will be confronting many defense-oriented firms once the war in Indochina is finally concluded.

At present, there is no real demand for the supersonic transport, just as there will be a much smaller demand for war materiel once the conflict is over. If there were such a demand, the investment market would provide the capital for the project.

On the North Atlantic routes which would provide most of the SST market the current first-class load factor is 33 percent, or about nine passengers per flight. Supersonic transports, Concordes or SST's, will charge a fare above first-class rates and can, therefore, be expected to encounter tremendous difficulties in filling their seats. If the laws of the air transport marketplace were allowed to operate normally, SST operation would still be far in the future. But in the present circumstances we find the Government pushing the airlines into the SST business as a means of propping up an aerospace industry that has not demonstrated the flexibility required to survive while producing a socially useful, profitable product.

This aspect of the SST issue is particularly interesting to me since it is essentially a matter of the conversion of an industry from one kind of technology to another. I have addressed just that problem in the National Peacetime Transition Act of 1971, which I cosponsored with the Senator from Maryland (Mr. MATHIAS). Referring to the weapons industry, I said then:

We may be tempted to respond to the problem by trying to keep the industry alive—by using jobs as a justification for building more military hardware than we need.

But that approach is indefensible on all grounds—moral, political and economic. With all the public tasks waiting to be performed by this country, it is unconscionable to regard the Pentagon as a job-creating enterprise. There is no area of federal responsibility in which the "public works" concept is less appropriate or more damaging.

The same principle applies to the SST. There can be no justification for building a plane which is environmentally damaging and economically preposterous in order to keep a particular industry afloat. The American taxpayer should not be asked to foot the bill for the shortsightedness of the Boeing Co. management and the Federal Government. As I indicated in my remarks on introducing the Peacetime Transition Act, the Government has a responsibility to those who have in the past depended on Government contracts for their livelihood. But that responsibility does not include building planes as objectionable and as unneeded as the SST.

I would like to take just a minute to address an aspect of the SST debate that has had almost no attention, the effect on subsonic fares of the introduction of large numbers of SST's into the fleets of the major international carriers.

The cost of the U.S. SST is expected to be in the neighborhood of $60 million each by the time the plane is introduced into commercial service.

Purchasing the planes will place tremendous economic strains on the airlines that buy them. This is especially true since the poor economic characteristics of the SST would make capital extremely hard to find, and then only at premium interest rates. Since the plane, especially in its early stages of operation, cannot be expected to pay for itself, the cash flow requirements of the airlines will almost certainly be reflected in higher fares throughout the industry. In other words, passengers who use domestic subsonic flights will be asked to pay a higher fare so that the supersonics will be available for that tiny percentage of our population who desire to fly overseas in first-class seats. Students who are going home for the holidays, or relatives who wish to visit one another, or just average businessmen or even Congressmen who require air transportation within the country will be paying more for those flights if the SST's are introduced into service.

In addition, those who choose to fly overseas in coach or economy class flights will probably have to pay more for their vacation trips, many of which are once-in-a-lifetime affairs, because of the SST. Present projections call for an SST fare 50 percent higher than subsonic fares. It is doubtful that the SST could carry such a surcharge and still compete with the subsonics. The likely result is an artificial boost in subsonic fares which

would make them less competitive with an economic albatross like the SST.

"The Age of the SST" which is looked to with such unmitigated enthusiasm by the plane's proponents will be an age in which each time an air traveler boards a plane in this country he will be taxed so that some rich international traveler can reach his destination a couple of hours earlier. That is a prospect which I cannot support.

Finally, regarding the debate over whether the environmental doubts raised by critics of the SST have been laid to rest or will be at the time that the airplane goes into production, I urge you to view this question from a different perspective—a perspective assumed by David Brower, president of Friends of the Earth, in his testimony before the House Transportation Subcommittee. Brower asked the question, "Suppose we simply didn't build the albatross?" not "What noise levels, or what boom frequencies, or what emission levels can we tolerate in the SST?"

Toleration is at best a very shaky relationship. And we ought to think less about what we can tolerate than what we should demand. No doubt the first liter of pollutant introduced to Lake Erie was tolerable to trout and swimmer alike. And the second and the third liter too. But now, consider what toleration has done to Lake Erie. No doubt the first snowmobile to buzz in and out among the trees of a forest was acceptable, albeit startling, to the jackrabbit and the woodsman. And perhaps the second and third snowmobile too. But consider what toleration, and the incessant buzzing, have done to the ecology and the peace of those woods now.

We should not tolerate incremental additions to technological ncise when their benefit is so limited. We should not tolerate incremental additions to stratospheric pollution, whether they equal those produced by two Volkswagens or 500 Mack trucks. For the" will accumulate over time. And 50 years from now, we will look back and ask ourselves, why we did not dig our heels in and say "No" when it really could have counted. We will ask ourselves—"Suppose we simply had not built the Albatross?"

Mr. President, I yield the floor.

Mr. PROXMIRE. Mr. President, I yield 10 minutes to the Senator from Arkansas.

Mr. FULBRIGHT. Mr. President, last year the Senate gave thorough consideration to the question of further Federal funding for the supersonic transport and decided that the funding should not continue. Last week the House of Representatives made a similar decision. Now, once more, the matter is before the Senate, and I strongly hope we will reaffirm the action of last December, as well as the recent vote in the House.

However, in recent weeks we have witnessed a high-powered campaign designed to save the SST. The plane's proponents have undertaken a massive and costly promotional blitz.

It would be tragic if we allowed propaganda and pressure to blot out the overwhelming case against the SST. The environmental questions about the SST have not been answered; but far outweigh the environmental arguments, as I now understand them, are the economic arguments, which have been distorted out of all proportion, and which I think are sufficient to condemn the SST at this time. Of course, some time in the future, in 10 or 20 years, other conditions may develop in which this could possibly be an economically feasible situation.

Mr. President, I know we have had many arguments here, but I think one very significant one, published on March 21, in the Observer, may not have been called to the attention of the Senate. This tells the experience of the British. The article is by Andrew Wilson, in the Observer of London:

Britain will refuse French demands for a go-ahead on quantity production of the supersonic Concorde when the Minister of Aviation Supply, Mr. D. Corfield, meets his French opposite number, M. Jean Chamant, in London a week tomorrow.

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Members of the Government, including it is believed, both Mr. Corfield and the Secretary of State for Trade and Industry, Mr. John Davies, have been profoundly disturbed by the figures submitted by BOAC showing that Concorde can be flown only at a loss.

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The minimum number of orders thought necessary to give Concorde a £12 million price tag, is about 100.

At present there are no orders—only 'options' on 74 aircraft taken out four to six years ago and in no way binding on the airlines concerned.

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Whitehall officials are now studying the legal implications of a British withdrawal from the programme.

I ask unanimous consent that the entire article be printed at this point in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

TOUGHER LINE WITH FRANCE ON CONCORDE

(By Andrew Wilson)

Britain will refuse French demands for a go-ahead on quantity production of the supersonic Concorde when the Minister of Aviation Supply, Mr. D. Corfield, meets his French opposite number, M. Jean Chamant, in London a week tomorrow.

The Ministerial meeting was to have been for a "final review" of the Anglo-French project. But it is now clear that, so far from committing itself, the British Government is determined to keep its freedom of action.

Members of the Government, including, it is believed, both Mr. Corfield and the Secretary of State for Trade and Industry, Mr. John Davies, have been profoundly disturbed by the figures submitted by BOAC showing that Concorde can be flown only at a loss.

Following the criteria laid down by the Labour Government, the Cabinet is refusing to authorise production without clear evidence that airlines are willing to buy the plane. The minimum number of orders thought necessary to give Concorde a £12 million price tag is about 100.

At present there are no orders—only "options" on 74 aircraft, taken out four to six years ago and in no way binding on the airlines concerned.

Up to last week supporters of the Concorde in the Ministry of Aviation Supply apparently hoped to convince Mr. Corfield that BOAC's figures were unduly pessimistic.

While admitting that they still need time to check BOAC's sums, they advanced the argument that it was not necessary to have real live airline orders before opening the production run.

It was enough, they said, to know that competing airlines would have to order the plane if BOAC and Air France ordered, which they could be made to do with a Government subsidy if necessary.

But Mr. Corfield and the Treasury have not accepted this argument. On the contrary, for the first time since Labour's abortive attempt to cancel the Concorde in 1964, Whitehall officials are now studying the legal implications of a British withdrawal from the programme.

In 1964, the Law Officers advised that Britain could be sued for damages in the International Court with which the Anglo-French agreement had been deposited two years before. It is thought unlikely that this would be so if Britain withdrew from the production programme—because the agreement provides only for the development of the Concorde and the building of prototypes.

An immediate problem is the effect cancellation would have on the unemployment situation, especially if the RB-211 cannot be revived. Another is the relationship of Concorde to Britain's application to join the Common Market.

To cancel now would gravely endanger relations with France on the matter; but to commit Britain to continuing without any quid pro quo would be to throw away a valuable bargaining counter.

This has determined the Government to postpone a decision on Concorde until the summer, when Britian is expected to resume the Common Market talks frustrated by French reservations earlier this month.

The most Mr. Corfield can agree to—and even this is now in considerable doubt—is the authorisation of preliminary work on four production aircraft in addition to the six on which preliminary work was started last year.

There is no question of giving the green light to the Concorde. It also seems that in the event of any further delay on the Common Market the Cabinet intends to review the spending of £1 million a week on an aircraft that may never go into service.

Mr. FULBRIGHT. It is interesting that the French and the British, after their experience, as long or longer than ours, are now contemplating—the British are—how much it will cost them to withdraw from it—that, is, the additional cost. They have already spent far more than was originally contemplated, as we have. We were assured, when President Kennedy discussed this matter, that we would be called upon to provide only $670 million. We have already appropriated more than that, and this is the usual way these things escalate. We are now told it will cost approximately $1.4 billion. There is no doubt that it will be at least $2.5 or $3 billion before we are through with it.

In that connection, I have another story that does not have to do with planes—just the arms cost overruns of $33 million found by the General Accounting Office. This is the typical way these things are managed.

I ask unanimous consent that the article be printed in the RECORD, for the information of the Senator from Washington. I do not have time to read it now, but it shows the usual progression of the cost overruns on all these similar gadgets which either the Pentagon or the Department of Transportation requests.

Mr. MAGNUSON. There are no overruns in this at all.

Mr. FULBRIGHT. We have appropriated more than President Kennedy said it would cost.

Mr. MAGNUSON. That was 15 years ago.

Mr. FULBRIGHT. It was not 15 years ago.

Mr. MAGNUSON. Twelve years ago. Inflation has affected everything.

Mr. FULBRIGHT. Yes; inflation of all kinds.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

ARMS COST OVERRUNS OF $33 BILLION FOUND

(By Bernard D. Nossiter)

A General Accounting Office study discloses that cost overruns on 61 weapons systems have so far reached $33.4 billion, an average of $500 million apiece.

The report blames this on, among other things, "deliberate underestimating." Additional factors cited are "unanticipated development difficulties, faulty planning, poor management, bad estimating," inflation and the desire to exploit new technology.

Of the $33.4 billion in "cost growth," the term favored by the Pentagon, some $9.5 billion took place before any production began. This sum is the difference between the first estimates the Pentagon prepared to get money from Congress and later estimates made when the preliminary designs were completed.

That disclosure supports Pentagon critics who charge that the military have consciously misled Congress to get programs started.

The 84-page study is entitled "Acquisition of Major Weapons Systems" and is due to be made public today. An advance copy was obtained by The Washington Post.

It examines major systems that are still being developed or produced. These were initially advertised to cost $83.6 billion. By June 30, 1970, the services estimated the systems would cost $117 billion.

No more recent estimate of cost increases is provided, nor is their any measure of the increase per year.

The biggest overrun, $3 billion, is attributed to the Navy's Mark 48 Torpedo. Next comes the Air Force Minuteman III missile, up $2.9 billion over its original estimate.

Third on the list is a new class of Navy destroyer, the DD–963. However, a substantial share of its $2.4 billion cost growth simply reflects the purchase of more ships. The Navy's new F–14 fighter is next, recording a $2.1 billion cost gain, again largely because more are to be bought than originally planned.

Some of the more famous programs with cost overruns do not rank high on the list, largely because the skyrocketing increases have induced their sponsors to trim them back. Thus the C–5A, reduced from 120 to 81 planes is now credited with an overrun of only $900 million. Similarly, the overrun on the F–111, models A through F, is computed at only $1.7 billion.

Apprised of the study's central finding, Rep. William Moorhead (D-Pa.), a leading House critic of Pentagon procurement procedures, said:

"The $33.4 billion in overruns is shocking—but even more disturbing is the $9.5 billion in overruns which appear before the weapons systems got out of the paper stage. This is clear evidence that the Pentagon is deliberately deceiving the Congress. It emphasizes the need to redouble our efforts in obtaining better information and visibility of these programs earlier in the game."

The GAO study, prepared for Congress, suggests that the Pentagon's weapons-buying has improved somewhat in recent months. Under Deputy Defense Secretary David Packard, the report says, newer programs "are characterized by a slower development pace and more conservative procurement practices."

Mr. FULBRIGHT. Mr. President, it is very interesting. We are told that it is necessary for us to keep our leadership. Apparently, the Members of the Senate have forgotten that in the case of airplanes, especially jet airplanes, the British put the Comet in the air before we did, on a commercial basis. It was not a successful plane because of certain defects of design. We learned from their mistakes. We came along with subsequent planes similar to the 707, and the principal difference in design was putting the engines in a pod below the wing. The old Comet had the engines in the wing, and they had some disastrous experiences. I recall reading about one that disintegrated over the Mediterranean, and it was thought to be metal fatigue growing out of the design. So we came along—but who got the business? It was not the British, with the Comet; it was Boeing, with the 707.

It was the same with the design of putting the engines in the rear, as in the 727. We did not originate it. The French put it on the Caravelle before Boeing did.

It would seem more profitable to allow someone else occasionally, when they have undertaken this kind of experimental plane, to go ahead and do it. The argument that we should do it first is not a very sound one, judging by the experience we have already had.

The SST lobby has tried to color over the environmental problems and concentrate on the economic aspects. Despite their claims, however, their economic case is woefully weak.

Last September I submitted to the Senate the results of a survey taken by my staff of the views of 16 of the Nation's leading economists. As is well known, they were nearly unanimous in their belief that proceeding with the SST would be unwise and was not justified on economic grounds.

Subsequently, this survey has been updated and in most cases the economists have strengthened their opposition to the SST.

Anyone who harbors doubts about these economic questions should study the economists' statements and measure them against the claims made by the proponents about the potential impact on jobs, balance of payments, and so forth.

I will not attempt to review all these economic questions. Certainly there are many problems in our society which demand our attention and for which our funds could much more wisely be appropriated. Seldom has there been a clearer example of misplaced priorities than the SST.

As has frequently been pointed out, the SST would serve an infinitesimally small percentage of the population. The problems of urban transportation, of ground transportation to and from airports, are much more compelling and a fit subject for our technologists.

The average family does not need the SST, and everyone knows this. The average family might like to travel, but getting to Europe 3 hours quicker will be of no significance. Existing planes will carry larger passenger loads than would the SST.

Only last week, the Civil Aeronautics Board approved higher fares to Europe—by as much as 12.5 percent on some flights. If the Concorde should ever fly, passengers would be charged a supplemental fare and the same would apply for the SST. Should we not be more concerned about bringing air travel within the price range of a greater number of people than with providing faster transportation—from takeoff to landing—for a few?

As economist Wassily Leontief, president of the American Economics Association, said:

At a time when millions of average American citizens make their trips by bus or private car because the one-way flight from Boston to New York for which they paid $13 four years ago now costs $26, and when our airlines lose money because of empty seats and increasing costs, research and development efforts to provide a somewhat faster trans-oceanic passage for a few thousand well-heeled travelers at still higher costs makes no sense.

The SST lobby has greatly emphasized the threat of the French-British Concorde and the Russian TU–144. This threat has been considerably exaggerated, and several articles and statements that I have seen recently help put this matter in better perspective.

One of the most significant statements on this subject was that made by Mr. Jean-Jacques Servan-Schreiber, deputy to the French National Assembly from Lorraine, and author of "The American Challenge."

In the statement which he submitted to Senator PROXMIRE, Mr. Servan-Schreiber provides a devastating critique of the Concorde, pointing out its numerous shortcomings and the reasons why numerous experts have concluded that this is not an economically viable aircraft. Referring to the Concorde as "an industrial Vietnam," he notes that the plane's capacity is now being reduced to 110, or less, which is not even one-third the capacity of the existing 747's. Mr. Servan-Schreiber states:

At that level, the plane can be bought by Air France and BOAC only if it flies at full capacity on every flight. An impossible assumption, as any airline executive knows.

I would urge that every Senator give careful consideration to Mr. Servan-Schreiber's statement, in which he details the Concorde's problems and says:

The conclusion in France today, after a few weeks of publicly airing the facts, is that, the project is, at a minimum, a commercial and financial disaster.

I would also commend to Senators an article from the Observer, London, of March 14 concerning a recent report on the operating economics of the Concorde. The article tells of a recent report to the Swedish Government by Mr. Bo Lundberg, a respected aviation expert, who "endorses the finding of BOAC and Air France that the supersonic Concorde can be flown only at a loss."

The Observer article states:

Lundberg gives the operating costs per seat mile for the Concorde as 1.76 times those of the 747 on the most optimistic assumptions, and as 2.12 times those of the jumbo on

more cautious assumptions. This accords with the estimates made by BOAC and Air France. (Lundberg's figures for the American SST are 1.54 and 1.79 respectively.)

But this most telling indictment of Concorde's economics—which also weighs heavily with BOAC—is the aircraft's lack of cargo space. He says that not only is it ill-equipped to carry more than the passengers' baggage, but no shipper will pay a supersonic surcharge for cargo, by which less-than-full aircraft are helped to pay their way.

Mr. President, I ask unanimous consent that this article from the Observer of March 14 be printed in the RECORD at this point.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

[From the Observer London, Mar. 14, 1971]

CONCORDE "FLOWN AT A LOSS"

(By Andrew Wilson)

The most damning report yet to be made public on the operating economics of the Anglo-French Concorde was deliverd to the Swedish Government last week by the internationally respected aviation expert, Mr. Bo Lundberg.

Mr. Lundberg, who is Sweden's representative on the sonic boom committee of the International Civil Aviation Organization (ICAO), endorses the finding of BOAC and Air France that the supersonic Concorde can be flown only at a loss. According to his report, even if Concorde is operated at an advantageous fare surcharge, the airlines' return on their investment in the plane is unlikely to be more than 30–55 per cent of that on an equivalent investment in the subsonic Boeing 747.

The economics of the projected American supersonic transport (SST), which is larger than Concorde, would work out slightly better, but the plane is still liable to be a 30 per cent poorer investment than the subsonic jumbo.

"If such deficient returns are accepted by airlines," says the report, "they will either counteract possible fare reductions on *subsonic* operations, or will result in an increase in subsonic fares"—unless, of course, the loss is subsidised by Governments and tax-payers.

Mr. Lundberg says the main reasons for the the poor economics of supersonic airliners are the purchase cost per passenger seat (about four times that of a big subsonic jet) and the supersonic's fuel consumption—about three times that of a subsonic jet per seat mile.

Lundberg gives the operating costs per seat mile for the Concorde as 1.76 times those of the 747 on the most optimistic assumptions, and as 2.12 times those of the jumbo on more cautious assumptions. This accords with the estimates made by BOAC and Air France. (Lundberg's figures for the American SST are 1.54 and 1.79 respectively.)

But his most telling indictment of Concorde's economics—which also weighs heavily with BOAC—is the aircraft's lack of cargo space. He says that not only is it ill-equipped to carry more than the passengers' baggage, but no shipper will pay a supersonic surcharge for cargo, by which less-than-full aircraft are helped to pay their way.

A decision on the future of Concorde is due to be taken by the British and French Governments at the end of this month.

Mr. FULBRIGHT. In regard to the Russian aircraft, it should be remembered that no airline in Western countries has ever bought a plane from the Soviet Union, and it seems unlikely that this policy would be changed overnight. An excellent analysis of the Soviet plane and its prospects was published in the Washington Post of March 21. A careful reading of this article by Anthony Astrachan will make clear that the threat of the TU–144 has been greatly overstated.

As Mr. Astrachan points out:

Moscow observers are almost unanimous that the TU–144 will solve neither the ecological nor the economic problems that seem likely to abort the Western supersonic transports.

They feel that those factors, combined with traditional Soviet marketing disabilities, will prevent the U.S.S.R. from selling many TU–144s to Western airlines.

Then Mr. Astrachan makes the telling point:

Warnings from American aviation officials that the Soviets will sell many planes appear from here to be part of the lobbying effort for congressional approval of the Boeing SST rather than prudent conclusions drawn from available facts.

Mr. President, I ask unanimous consent that the article by Mr. Astrachan from the Washington Post of March 21 be printed in the RECORD at this point.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

[From the Washington Post, Mar. 21, 1971]

SOVIETS APPEAR NEARER TO PRODUCING SUPERSONIC AIRLINER

(By Anthony Astrachan)

Moscow, March 20.—Soviet pilots "will start mastering" the Tupolev–144 supersonic transport this year, according to the Soviet minister of civil aviation.

The TU–144 thus appears closer to production and use than either of its troubled Western competitors, the Anglo-French Concorde or the American SST.

But no date has been publicly set for the Soviet plane to start service. In 1968, Soviet officials predicted a start in March 1970. In 1969, they put the date at early 1973. A year ago they put it at 1975. Nothing has been heard since on an official basis.

Moscow observers are almost unanimous that the TU–144 will solve neither the ecological nor the economic problems that seem likely to abort the Western supersonic transports.

They feel that those factors, combined with traditional Soviet marketing disabilities, will prevent the U.S.S.R. from selling many TU–144s to Western airlines. Warnings from American aviation officials that the Soviets will sell many planes appear from here to be part of the lobbying effort for congressional approval for the Boeing SST rather than prudent conclusions drawn from available facts.

It is true that Aviaexport, the Soviet organization for selling aircraft abroad, has been advertising the TU–144 in such publications as Aviation Week and Jane's Directory of World Aircraft.

THREE MOTIVATIONS

Moscow observers find three probable motivations for this: an intent or wishful thought of actual sales; a desire to build Soviet prestige when Western manufacturers cannot yet advertise supersonic transports, and a desire to fuel the American lobbying effort for the SST.

The last possibility reflects the fact that the Soviet aircraft industry has no guarantee of the precise dimensions of its slice of the resource pie. If the U.S. Congress appropriates more money for the SST, Soviet aircraft makers can turn to the Kremlin and say, in effect, "You have to give us the rubles to finish the TU– 144 because the Americans are going ahead."

Efforts of the kind made on behalf of the SST by men like Najeeb Halaby of Pan American World Airways and astronaut Neil Armstrong are known to be used by their Soviet equivalents in the Kremlin's internal lobbying.

So far as the ecological problem goes, the Soviets have made public no facts about the TU–144's sonic boom except for statements by a test pilot and test-flight passengers that they could not hear it.

POLLUTION PROBLEMS

The U.S.S.R. is much less pollution-conscious than the West. Both its pollution and its relatively feeble efforts to solve pollution problems are concentrated more on water than on air. In Soviet society, citizens are not allowed to organize pressure groups against Kremlin-approved projects like the TU-144 of the kind that encouraged the U.S. Senate to stop funds for the SST last year, and the House to cut off funds this past week.

The sonic-boom problem is smaller here than in the West because the Soviet Union is sparsely populated, compared to the United States and Western Europe. Aeroflot could conceivably route planes around urban areas and minimize the effect of booms more thoroughly than is possible in the West.

That depends on the routes chosen. Alexei A. Tupolev, designer of the TU-144, said two years ago that it would operate on routes over 1,200 miles long. Most Moscow observers think it would be uneconomical on routes under 2,000 miles.

That would still allow TU-144 to fly eastward from Moscow, Kiev or Leningrad to Alma Ata, Novosibirsk, Irkutsk or Khabarovsk, approximately 4,000 miles from Moscow in the Soviet Far East.

One rumor now being heard says that the TU-144 will go into service on the Moscow-Khabarovsk run in October. Efforts to trace the rumor to its source have wound up in Washington and Paris more than in Soviet officialdom.

FOREIGN SERVICE

The same is true of rumors of imminent supersonic services to Karachi, New Delhi and Calcutta. Soviet officials spoke two or three years ago of TU-144 flights to Tokyo and New York. Those flights would demand at least one stop en route because Tokyo and New York are beyond the craft's 4,040-mile range from Moscow.

All these flights would involve flying, presumably at subsonic speeds, over thickly populated areas like the U.S.S.R. west of Moscow, Western Europe and northern India. Yet Tupolev said the TU–144 was designed to travel at supersonic speed "almost during the entire flight time."

On the economic side, the Soviets have said only, "Economists have estimated that the cost of a flight on the TU-144 will not exceed that on subsonic planes."

Moscow observers are convinced that the TU–144 in fact will have costs comparable to the Concorde's. An American study put the operating costs of the Concorde per passenger mile at 40 per cent more than existing four-engine jets, which in turn would require at least a 25 per cent surcharge on regular passenger fares.

If that is true of the TU–144, the Soviet statement becomes simply a promise that the government will absorb these extra costs. It already absorbs much of the cost of housing and public transport, including existing rail and plane fares, as necessary social services.

PASSENGER SEATING

Cost estimates start with the fact that the TU–144 will carry up to 120 passengers in rows of three seats on one side and two on the other, compared to 128 to 144 in pairs of seats on the Concorde. The Boeing SST, which will carry 300 passengers if it is ever built, is not strictly comparable.

Tupolev said the TU–144 seating arrangement in a plane roughly the same size as the

Concorde was made possible by the fact that the main undercarriage of the TU–144 retracts into the wings in the direction of flight, while that of the Concorde retracts into the fuselage at right angles to flight, i.e. in line with the wingspan. Tupolev suggested this meant less drag on his aircraft.

The maximum rated speed of the TU–144 is 1,550 mph at 65,000 feet; the maximum it has been reported as reaching was 1,458 mph at 51,000 feet in a test last Nov. 12. The Concorde is rated at 1,450 mph at 54,000 feet.

The TU–144 will have a range of 4,040 miles compared to 3,600 for the Concorde.

The Soviet engine thrust is similar to the Concorde—35,000 to 40,000 pounds, according to Halaby, who saw the TU–144 two years ago. The TU–144's four engines are clustered together in the center of the plane under the fuselage, while the Concorde's are located in pairs under the wings. Tupolev said the Soviet design means that if one engine fails, it will be easier to prevent inadvertent turns of the aircraft.

COMPARATIVE WEIGHT

The Concorde takeoff weight will be 385,000 pounds, compared to 330,000 for the TU–144.

Both planes have bent noses like a bird's beak—the Tupolev slightly more so. Alexei Tupolev said this was to maximize the cockpit field of vision while eliminating the traditional "canopy" to reduce drag.

The performance of the TU–144 is unknown except in the most general terms. Halaby and Armstrong praised it without seeing it in flight. Its chief test pilot, Eduard Yelyan, said the plane was a great success and "much easier to control than subsonic air craft."

Yelyan added that all flight characteristics had "proved better than the designed ones." He said the plane generated less noise than a conventional jet inside the passenger cabin.

The plane "trembled slightly" as it exceeded the speed of sound, but Yelyan said this was not likely to be noticed in the passenger compartment. Western passengers on all Soviet aircraft—prop, turbojet and jet—have noticed more vibration than on their Western equivalents. This is no reflection on their safety but it reduces passenger comfort and might conceivably reflect factors that would shorten aircraft life.

ON-BOARD COMPUTER

Up to 90 per cent of TU–144 flight operations are performed by an on-board computer "that calculates the course and the best trajectory and prepares the necessary information for landing." The plane will therefore carry no navigator and have only three people in the cockpit—pilot, copilot and flight engineer to check the equipment.

This may be a tribute to Soviet technology. But Soviet scientists have said that their computers are 5 to 15 years behind the West's, for reasons including poor component reliability, and specialists will be watching to see how the TU–144 computer checks out in performance.

However good the plane is, Soviet marketing disabilities remain a factor. The first is a penchant for secrecy that might prevent prevent Western civil aviation authorities from learning what they want to know about how an aircraft is made as well as how it performs. The Soviets have seldom if ever permitted foreigners to make a thorough inspection of an aircraft factory.

Despite the signs of Soviet interest in Western sales, the Aviaexport advertising is rich in colors and poor in specifications. So little is known about the TU–144 that Western sources report nose-to-tail lengths varying from 188 ft. 6 in. to 196 ft. 10 in., and wing spans from 72 ft. to 88 ft. 3 in. The differences may reflect modifications in design that have also been rumored, but Soviet sources have not said which are the latest figures.

The second marketing problem is the traditional Soviet inability to provide service and spare parts on a basis acceptable to the West. Only the defense industry produces adequate service systems or spare parts here. Foreign buyers do get preference, as in the case of Volga cars sold abroad, because the Soviets usually do try to live up to contracts. Users in Nigeria and Finland still have not found Soviet performance equal to the West's.

COST ESTIMATES

Third is the fact that Soviet accounting methods lead to what Westerners regard as inaccurate cost estimates, even if there is no conscious intention to cheat.

Fourth is the simple fact that Soviet international aircraft have never been as comfortable for passengers as their Western equivalents, though Tupolev rated passenger comfort a prime consideration in the design of the TU–144.

All these factors led to dissatisfaction with the performance of Soviet Ilyushin aircraft sold to Ghana over 10 years ago. Romania bought British BAC–111s when it presumably could have had Soviet planes. Western airlines will be watching with interest the performance of YAK–40 medium-range jets recently sold to Italy, to see how these problems have been overcome.

Some observers believe that if the TU–144 is successful, competition in world markets will come less than attempts to sell the craft to Western airlines than from selling faster service to that handful of passengers that would rather cross the Atlantic in two hours instead of seven, or Siberia in three hours instead of 10.

The standard of service on Aeroflot makes Westerners think the latter choice would well be worth a surcharge. Such reactions warn against overrating Soviet competition for passenger-miles. But the Soviet airline, which now serves 60 countries, is extending its international routes. Its standards may go up as it moves into more competitive routes—although the cancellation for Scandinavian Airlines training for 40 Aeroflot hostesses is not a good omen.

Mr. FULBRIGHT. Of course, the Russians do not account for the profitability upon the same basis we do. Because of their internal traffic, they have reasons for a plane of this kind. If anybody is justified in building such a plane, it is the Soviets. I believe it is about 5,000 to 7,000 miles from one extreme end to the other of the Soviet Union. Much of that is over areas which are thinly populated, in the far north. So if any country in the world could make a case for a plane of this kind, it would seem to me to be the Soviet Union. While they have developed it in Russia, the use of that argument to justify one here is quite irrelevant, it strikes me.

I think Mr. Paul Samuelson, the Nobel laureate in economics, summed up this matter well:

By use of the methods employed by the defenders of the SST, one could arrive at the conclusion that the Concorde was an economically sound project—an absurd conclusion not shared by any informed people on either side of the Atlantic. The threat of a Concorde or Russian supersonic plane is used to sell the inevitability of our developing an SST at whatever expense and ultimate loss. After realistically surveying what those two models can accomplish if we do not have an SST, one arrives at the proper economic conclusion that an SST at this time is not warranted.

Finally, Mr. President, I would like to take note of the fact that the question of further funding for the SST has generated an extremely large volume of mail from my constituents. I've heard from people from every section of Arkansas and all walks of life and they are overwhelmingly opposed to continuation of the SST.

I ask unanimous consent to have printed in the RECORD a small sampling of the many letters I have received from Arkansas. Each of these writers make a strong and direct case against the SST.

I also ask unanimous consent to have printed in the RECORD an excellent editorial from the Arkansas Gazette of March 18, which thoroughly documents the case against the SST and the need for the Senate to uphold the popular will.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

MARCH 18, 1971.

Hon. J. WILLIAM FULBRIGHT,
U.S. Senate,
Washington, D.C.

DEAR SENATOR FULBRIGHT: As a constituent of yours in Arkansas I am writing to you regarding the proposed funding and building of a Supersonic Transport Airplane.

I hope that you will take a stand against this funding if and when this comes up for a vote in the Senate.

Aside from the damage that this plane could contribute to our environment, I simply feel that the billions of dollars that it would take to build just two of these planes for testing could better be spent in other ways too numerous to mention.

Even if the planes were eventually built and put into commercial use I feel that they would be a luxury only the very rich could enjoy. They would not benefit the vast majority of American people. As for speed and luxurious traveling I feel that the 747's now in use completely suffice in this area.

I would appreciate hearing your views on this matter.

Sincerely,

MRS. LARRY R. CLARK,
Fort Smith, Ark.

PULASKI HEIGHTS
PRESBYTERIAN CHURCH,
Little Rock, Ark., March 19, 1971.

Hon. J. WILLIAM FULBRIGHT,
U.S. Senate, Senate Office Building, Washington, D.C.

DEAR SENATOR FULBRIGHT: Personally, I was thrilled over the defeat of the SST bill in the House this past week. As it comes before the Senate, I would like to share with you my personal concerns.

For one thing, I feel that in a period when we have been so concerned about government control of private enterprise, it seems highly inconsistent that the government should spend this much money to subsidize a commercial undertaking. If it is a profitable venture, private industry should be able to find some way to finance it.

I am also deeply concerned that this type expenditure should take precedence over the many physical and educational needs in our nation and throughout the world.

Recently, I have read articles written by competent scientists who raise many questions concerning the possible harmful effects of supersonic transportation. I feel that it would be highly irresponsible for the Senate to take action before knowing the full story in the area of science.

It also seems that private industry ought to make sure that such ventures as the "747" are profitable and wise before getting into the SST. It is my understanding that they are losing a great deal of money on

this form of transportation, and that the SST could even be more of a white elephant. I would regret to see our federal government encourage this type irresponsibility. Some arguments have been made based on "national pride." Many of us do not care about keeping up with the French and Russians, especially when it comes to matching their costly blunders.

Sincerely,

WILLIAM S. MCLEAN.

CRYSTAL HILL FARM,
Mena, Ark., March 16, 1971.

Senator J. W. FULBRIGHT,
Senate Office Building,
Washington, D.C.

DEAR SENATOR: I am opposed to the SST program because if it is successful it will benefit only a very few people who will be taxed to supply the funds.

Proponents of the program stress that it will furnish employment for a great many people. This is one good feature, but I am sure that the same amount of money used to build schools and hospitals will put a much larger number of people to work and a greater number of the taxpayers will benefit for years to come.

You are cognizant with the situation of the Lockheed C–5A. Its costs have exceeded the estimate several times. The French-English Concorde is in exactly the same way. How do we know the true cost of our proposed SST is any better estimated?

Please bear in mind that you were elected to represent the people of Arkansas in the United States Senate. I am one Arkansan who hopes you will vote negatively on the bill to provide any more funds for the SST.

Yours truly,

E. IRVIN FRITCH.

BLYTHEVILLE, ARK., *March 15, 1971.*

Honorable J. W. FULBRIGHT,
U.S. Senate,
Washington, D.C.

DEAR SENATOR FULBRIGHT: I urge you to vote against the use of government funds for developing the supersonic transport plane when the issue comes before the Senate later this year.

In my opinion, there are too many unanswered questions about the possible effects of the SST upon our environment to justify its construction now. Too, Senator Gaylord Nelson has estimated that each SST will cost about fifty million dollars. It is unlikely that many would be sold, since all major airlines are already in financial difficulties.

In short, the SST is a high cost, high-fare plane designed to serve a small constituency who travel regularly to Europe. The transportation systems in our major cities are in a state of near-collapse. If federal funds are to be used to solve transportation problems, they should be spent so as to benefit many rather than a few.

Sincerely yours,

ELVIS W. MORRIS.

UNIVERSITY OF ARKANSAS,
MEDICAL CENTER,
Little Rock, Ark., March 9, 1971.

The Honorable J. WILLIAM FULBRIGHT,
U.S. Senate,
Washington, D.C.

SIR: I am writing on behalf of myself and some other members of my department concerning the proposed SST. We feel very strongly that the SST project should be dropped. There are several reasons for our feelings.

First of all, and most important, is the environmental question. We simply do not know what effects the SST would have on our upper atmosphere. Until we are reasonably sure that no adverse effects will result, we feel it would be tremendously unwise to even consider the project further.

Secondly, we feel that the very idea of an SST is a little absurd in light of the appalling conditions on the ground at our airports. I recently took a trip to Europe, and was delayed on the ground at Kennedy Airport for twelve hours. The SST would cut my flight time from eight to three hours. If air traffic control, flight scheduling, etc., were improved, my total airport time could be cut by at least eleven and a half hours. I might also mention that upon my return from Europe, it took me three hours to reach my Aunt's house in Brooklyn via the public "transportation." My experiences, believe me, were not at all unusual. What possible good is an SST when one cannot land or take off on time from our airports, and when one cannot get to or from the airport on the ground?

Finally, we would like to express an opinion on recent comments by various elected officials concerning ecological problems in general. Several times on the news, we have heard elected officials say of such projects as the SST and the trans-Alaska pipeline that, ". . . we must look at the human element involved, not just the ecological problem." Can these men really have missed the entire message of ecology? Ecology is not birds and fish. The entire point which ecologists have been trying to make it that all creatures, people included, are tied together on the same earth. The things that kill whales and bald eagles will kill people too.

What these men want is jobs for their constituents. We can empathize with the people who are out of work, especially with the scientists, since we, too, are scientists. But if we pass legislation for such things as pipelines and supersonic transports merely to give people jobs now, we are guilty of jeopardizing the future of the children of these very same people. The human element involved is not just the short term gain of jobs for constituents but the long term gain of a healthy and livable world for the children of those constituents. We need very badly to put these people to work, but let's put them to work on projects which will benefit the environment and the future of our children.

Very truly yours,

KAREN HARRIS AND OTHERS,
Graduate Student, Dept. of Physiology.

Fayetteville, Ark., March 18, 1971.

The Honorable J. WILLIAM FULBRIGHT,
U.S. Senate,
Washington, D.C.

DEAR SENATOR FULBRIGHT: I urge you to vote against any further funding or support of the SST program. There are several reasons for my opposition. First, the plane project has proved, according to reports from France, to be a financial disaster, a burden which our European allies might well wish to transfer to us. Second, we have not even filled our 747 flights and these certainly offer sufficient speed and size for intercontinental flights. Third, the SST promises grave ecological dangers, those already substantiated enough to dictate our disapproval. Last, we should waste no valuable money on a project of no real national use, a program of benefit only to a few travelers and of not that much benefit anyway. Our national priorities and our good sense dictate that we turn down this program. Thank you for your consideration.

Sincerely,

SUZANNE H. MACRAE.

[From the Arkansas Gazette, Mar. 18, 1971]

TEST OF THE SYSTEM IN DECISION ON SST

Late last year the United States Senate made history—almost—in a decisive vote to stop funding the bitterly controversial development of a Supersonic Transport plane for commercial aviation. The outraged SST proponents, led by the Nixon administration, mounted a furious counter-offensive in which it seemed the whole of the aero-space industry and of the very military-industrial complex itself was engaged; they managed in the end to keep the $1.3 billion program alive until March 30, pending another congressional decision.

Now, three months and the $156 millions later (give or take a few millions, who cares?) another showdown is beginning with House debate on the next proposed appropriation for the SST—or, rather, or about $134 million that is left of the $290 million added last year. The issues in debate are major in the SST context itself, but they are surely no more important than the symbolism and the precedent in whatever Congress decides.

There are, first of all, the issues of environment—or "ecology." No one really knows what the side effects of commercial SST's would be, but opponents, including some of the experts, raise a spectrum of dangers encompassing everything from sonic booms to skin cancer. The sonic booms alone would settle the matter so far as we are concerned. In any case the risks seem large indeed for a speculative venture in an area of such uncertain commercial value.

About all the SST people have left, other than pure chauvinism, is the argument that the British and French are building theirs, and if they sell many SSTs their success will hurt the American aircraft industry and the balance of trade. In actuality, the SST has so many problems and so many obstacles that it may *never* be developed on any appreciable scale. It would seem that just once, anyway, the United States would leave some grand scheme of the aero-space people to someone else, some other country, to take its chances with. It might be instructive to sit this one out and examine another country's experience in such speculative dubious enterprise. After all, there may be other priorities of larger importance than trying to jet passengers across the ocean at 1,700 miles an hour instead of 600.

Debate on the SST opens, as it happens, coincidentally with the news that the great jumbo jets, the 747s that were going to revolutionize the air passenger industry in their turn, have been flying at about 30 per cent of capacity. Some airlines are tearing out the seats to put in bars in tourist class, trying to entice more customers aboard.

So much for progress. In the circumstances it is especially hard to buy the specious argument that just because we have poured $900 million down the SST drainpipe we are compelled to pour in the $400 million remaining on the schedule.

The worst damage in a congressional capitulation on the SST, however, might be what it would do to national "morale."

This is a time of deep unease for the American people, confronted as they are with a whole complex of ills, most of them deriving from, or at least aggravated by, an unwanted war that two successive presidents have refused to bring to an end. It is a time when all of us have a sense of profound frustration, in trying to prevail against powerful syndicates of interest and seemingly inexorable forces; it is a time when many Americans contemplate remedies outside of our system.

Yet in the case of the SST it seemed for a moment last December, in the Senate vote on the issue, that the popular will had been felt in the Congress, that the people had won a victory against one of the great combines at work polluting the environment and depleting the national treasury.

In the Senate's stand against the Supersonic Transport, then, there was a symbolism reaching beyond the instant issue. And if Congress should proceed now to continue with the risky SST boon-doggle, notwithstanding national concern approaching outrage, then the defenders of the system—all of us—will find it harder still to prove that the system still works, is still viable.

Mr. TAFT. Mr. President, there have been before this body and before the Appropriations Committee extensive recitations concerning the number of jobs which will be lost if the SST is terminated. In short, 13,000 jobs are at stake in building the prototype and the some 150,000 jobs that would be lost if the SST does not go into production. There has also been reference to the loss of business opportunities for the thousands of firms which would supply material for the SST and reference to the millions of dollars that will be lost in taxes which the jobs and the business opportunities would produce.

I invite the attention of Senators to another loss which is real and tangible that would result from the defeat of the SST. This is the cost of maintaining an unemployed person. Since all of the States do not give the same amount of dollars per week of unemployment benefit purposes, nor do they give the benefits for a standard period of time, I have used an average of the benefits given by five representative States; namely, Washington, Massachusetts, New York, Connecticut, and Ohio. The dollar benefits range from $60 to $92 per week and for a period of from 26 to 52 weeks. This provides an average of $77 per week for 39 weeks which the 13,000 people who will be made unemployed by the cancellation of this program could collect. This amounts to $3,000 per person, or a sum of $39 million. Obviously, a number of these 13,000 people will find employment almost immediately. Others will undoubtedly use up all of their eligibility for unemployment benefits.

Each of us can determine for ourselves what percentage of the 13,000 people released from the SST program will not use any unemployment benefits, how many will use a month, and so forth. Even if only 50 percent use 39 weeks of benefits, we are still speaking about paying out almost $20 million, which is a very significant cost of cancellation of this program.

There is a further cost of cancellation of this program. This is the cost of retraining. If we assume a portion of this 13,000 people who have lost their jobs will undergo retraining, and if we use a minimal figure of $1,000 per person, the cost of retraining becomes very significant. If only 2,500 people of the 13,000 have retraining, this amounts to an additional $2½ million. This cost must be added to the cost of the unemployment benefits which must be added to the standard termination costs of $312 million to determine the true cost of defeating the SST.

I believe these are tangible and calculable costs that must be considered when determining the cost of terminating the SST program. With many of our States having very heavy demands upon their unemployment insurance programs, I believe we should be cautious when taking any action that would increase the burden on these already overloaded State unemployment funds.

The PRESIDING OFFICER (Mr. MONTOYA). Who yields time?

Mr. BIBLE. Mr. President, how much time do I have remaining?

The PRESIDING OFFICER. The Senator has 35 minutes.

Mr. BIBLE. Mr. President, I am trying to divide the remainder of this time. Obviously, we are running out of time. I just want to look at my scheduling, to see how it will work.

At this time, I yield 5 minutes to the Senator from Kentucky.

Mr. COOK. Mr. President, on December 3, 1970, I reiterated my position expressed earlier in the year, against the SST. I ask unanimous consent to have those remarks printed in the RECORD at this point, doing so because one should not have to be reminded of what he previously said, he should remind others first.

There being no objection, the remarks were ordered to be printed in the RECORD, as follows:

[From the CONGRESSIONAL RECORD, Dec. 3, 1970]

Mr. COOK. Mr. President, today the Senate will once more consider whether additional appropriations should be approved for the development and construction of two prototype supersonic aircraft. By a very narrow margin the House passed this measure. The Senate Appropriations Committee also recommended its continuation. Now we must decide whether to accept the Department of Transportation's $290 million request for further development of the SST.

I voted against Federal funding for the SST last year.

I shall also oppose it today.

Very briefly, I would like to outline my reasons for doing so. First, a number of eminent scientists have also raised the question of atmospheric pollution by an SST flying at 60,000 feet altitude. The threat of a fleet of SST's introducing large quantities of water vapor into the stratosphere possibly causing unpredictable weather modification on a global scale, certainly cannot be ignored. Further study of this problem should precede the commitment of funds for development.

Other qualified scientists have voiced their concern over the potential environmental effects of this aircraft. The sonic boom and sideline takeoff noise have been cited as having an adverse impact on both the population and the wildlife. Yesterday the Senate approved a bill which is a step in the right direction toward eliminating these objections.

This legislation would prohibit supersonic flights of civil aircraft over the lands of the United States. It would also require the proposed civilian SST's to comply with the Federal Aviation Administration noise limitations. We should realize, however, that the latter is an administrative regulation subject to change.

Even assuming the best, the overland flight prohibition, while ostensibly eliminating one problem, also raises another. A number of qualified economists have said that such a prohibition would reduce the market demand for the aircraft, thereby reducing the Federal Government's return on its money invested under the royalty contract.

This form of Government participation also raises the question of our commitment to reorder our national goals and priorities. At a time when many of our needs in the field of transportation alone are going unfulfilled, I question whether the Federal Government should fund the development of a strictly commercial aircraft—which at most would benefit only one-half of 1 percent of all Americans.

Also, its proponents have argued that it would create a favorable balance of payments. Others disagree. Some of the Nation's top economists have stated that it would be a mistake to build an SST for that reason. They also contend that it would not benefit our balance of payments in world trade.

As a firm believer in our system of private enterprise, I seriously question the need for Government funding. The United States has achieved a dominant position in the field of international aviation because of our belief in this principle. I see no valid reason to alter it.

Also, if the SST is as economically viable as its proponents argue, then sufficient financing from the private sector should be available. The recent success of the Boeing 747 illustrates the principle that when a new development in aviation becomes economically sound, the private sector will be willing to finance it. In the matter of the SST, however, the private banks and financial lending institutions have been unwilling to invest any money in this highly questionable project. They believe it is a money loser.

Mr. President, I urge my colleagues to vote aye on the amendment I have cosponsored which would delete any appropriation for the SST.

Mr. COOK. You see, Mr. President, in my speech of December 3, 1970, we were voting on $290 million and today, 2 months and 21 days later, we are down to $134 million, while we allowed a filibuster from those who opposed—while many in this Chamber voted against cloture who really favored and favor now the SST—we allowed $156 million to be spent on this program.

I might say here that this Senator voted for cloture every time, because my record on that subject is consistent in all matters.

While those who opposed the SST filibustered for what they so strongly believed, they inadvertently sanctioned the expenditure of $156 million in funds.

So, therefore, Mr. President, my position on this project has come down to the same simple and what I consider to be the logical and rational conclusions; namely, that SST's will be built, they will fly, and they will be purchased. They will traverse the atmosphere and we will not, nor could we, put an 80,000 foot wall around the United States to insure our exclusion from the world of SST's.

If the statements of the senior Senator from Colorado are correct—and they were not refuted—if we save $134 million, it will cost us $119 million to save it. If the Government feels responsible to repay the airlines for their current expenditures, as appeared in last evening's newspapers, of presently $81 million, our cost would be $200 million to save the $134 million.

This certainly constitutes very poor economics. But let us look at it a different way. If we spend $134 million, we allow literally thousands of people from minimum wages to professional salaries to continue to go to work, to purchase goods, to pay taxes, and to maintain respect. We can do all this with the expenditure of $134 million.

However, if we spend the $200 million to "cop out" as it were, thousands of people will stop working, stop buying, stop performing, and stop paying taxes, by the way, Mr. President; but it does not end there. We are not out at the $200 million figure. We are transferring the

few thousand people to unemployment and welfare rolls. We add to the unemployment figures, that some here on this floor, who oppose the SST, will spend and have spent months blaming this administration for.

Mr. President, right after World War II, this country begged its citizens to go to school to get an education. The Government said, "Give us engineers and give us scientists." "Take us to the moon," if you will.

America's men and women took the challenge. They gave this Nation 85 percent of all the world's aircraft sales—and, yes, took us to the moon.

I wonder whether Americans would have done all this if they had known, when they had accomplished enough to satisfy the Congress, that Congress would walk out on them?

Mr. President, I know that the SST has become a symbol for the young for environmental reasons, and for the elderly because of inflation.

For me, Mr. President, because of our national priorities that I believe need true reorientation, the SST is not a symbol. It is a fact. It is here. If it is in the arsenal of production and if it will be in the arsenal of production for Britain, France, and the U.S.S.R., then I want it available to the United States of America.

This Senator would not vote for this resolution had section 3 not been inserted in it, because I spoke of governmental participation and my objection to it on December 3, 1970.

The PRESIDING OFFICER (Mr. BUCKLEY). The time of the Senator from Kentucky has expired.

Mr. BIBLE. Mr. President, I yield 1 additional minute to the Senator from Kentucky.

The PRESIDING OFFICER. The Senator from Kentucky is recognized for 1 additional minute.

Mr. COOK. Mr. President, this Senator will go on record now to vote "no" on every dime proposed on this floor beyond the two prototypes, and "no" on any attempt for a program for commercial production.

I am now willing to finish the two prototypes, but if the industry wants it from that point, then it is the banks of this Nation that they will have to turn to and not to the Congress of the United States.

Mr. President, I yield the floor.

Mr. BIBLE. Mr. President, I yield 2 minutes to the distinguished Senator from Texas (Mr. TOWER).

The PRESIDING OFFICER (Mr. BUCKLEY). The Senator from Texas is recognized for 2 minutes.

Mr. TOWER. Mr. President, it can be said that I have a selfish interest in the outcome of this vote because of the fact that many subcontractors in my State will benefit to the extent of half a billion dollars—indeed, probably much more than that.

But the basic issue here is whether we will make a determination to surrender American superiority and leadership in the aerospace industry and in aerospace technology to other countries.

I submit, Mr. President, that if we surrender that superiority and that leadership, we might be surrendering other products purchased in this country in the future.

Right now we are the greatest industrial nation in the world. It would seem to me that an unfavorable vote on this issue would be the harbinger of making the United States second rate. Indeed, it could be the harbinger of the creation of only one superpower in the world, because if the rest of the world is going to have to look to the Soviet Union for technology, for mass production, all the things that the world needs to achieve progress, then the United States is certainly going to be second rate.

Mr. President, it will be a black day in the history of this country if we should, at this point in time, reject the funds necessary to develop the SST.

We must recognize that the people of the world will be flying around in SST's in due course.

Let us pray that they will be ours and not someone else's.

Mr. BIBLE. Mr. President, I yield 6 minutes to the distinguished Senator from Colorado (Mr. ALLOTT).

The PRESIDING OFFICER (Mr. BUCKLEY). The Senator from Colorado is recognized for 6 minutes.

Mr. ALLOTT. Mr. President, in the last few weeks and days many people have come forward to discuss this issue, many of them authorities and many of them not authorities at all. But I should like to point out at this time that more than 20 economists across the Nation have endorsed the U.S. supersonic transport—SST—program in response to charges that the SST will not be economically feasible.

The list of supporters includes such nationally respected economists as Dr. Paul Cherington, professor of transportation economics, Harvard Business School; Dr. Martin T. Ferris, professor of economics, Arizona State University Graduate School of Business; Dr. J. C. D. Blaine, professor of economics, University of North Carolina Graduate School of Business; and Dr. Edward Smykay, professor of transportation and economics, Michigan State University Graduate School of Business Administration.

All the economists supporting the SST program are from colleges, universities and private research organizations across the country.

They said:

The U.S. SST should increase employment by adding a substantial number of new direct jobs—

And—

contribute significantly needed dollars to assist this country's balance of payments problems.

All agreed that development of the U.S. SST through the prototype stage will permit a complete analysis of the commercial economic viability of the SST. They also pointed out:

Recent technical information presented to Congress has demonstrated the high probability that the SST will operate well within environmental standards.

Mr. President, I ask unanimous consent to have printed in the RECORD a list of those endorsing the SST program.

There being no objection, the list was ordered to be printed in the RECORD, as follows:

SUBSCRIBERS TO THE SST ENDORSEMENT

Paul Cherington, Ph. D., Professor of Transportation Economics, Harvard Business School.

Martin T. Ferris, Ph. D., Professor of Economics, Arizona State University, Grad. School of Business.

J. C. D. Blaine, Ph. D., Professor of Economics, University of North Carolina, Grad. School of Business Adm.

Edward Smykay, Ph. D., Professor of Transportation and Economics, Michigan State University, Grad. School of Business Adm.

Hugh S. Norton, Ph. D., Chairman, Dept. of Economics, University of South Carolina.

Stanley Brewer, Ph. D., Professor of Transportation Economics, University of Washington, Grad. School of Business Adm.

Roy J. Sampson, Ph. D., Professor of Economics, University of Oregon, Grad. School of Business.

Hale Bartlett, Ph. D., Assoc. Professor of Economics, University of Illinois, College Management Science.

Joseph L. Frye, Ph. D., Professor of Transportation Economics, University of Tennessee, College of Business Adm.

Warren Rose, Ph. D., Professor of Transportation, University of Houston.

George W. James, Ph. D., Former Director of Economic Research, Battelle Memorial Institute, Chief Economist—Air Transport Assn.

Frank L. Hendrix, Ph. D., Professor of Transportation & Public Utility Economics, University of Tennessee, College of Business Admin.

James E. Suelflow, Ph. D., Assoc. Professor of Transportation and Public Policy, Indiana University, Grad. School of Business Admin.

Buford Brandis, Ph. D., Industrial Economist.

Grant Davis, Ph. D., Professor Economics, Auburn University.

Peter Lynagh, Ph. D., Asst. Professor of Transport Economics, University of Maryland, College of Business and Public Admin.

William P. Carlin, Industrial Economist.

J. Richard Jones, D.B.A., Assoc. Professor of Economics, University of Georgia, College of Business Admin.

George Horton, Ph. D., Professor of Economics, Auburn University, College of Business.

Prof. J. A. Smith, College of Business Admin., Southern Illinois University.

Lemont K. Richardson, Ph. D., Consulting Economist.

Alan H. Skaggs, Chief Economist, Aerospace Industries Assn.

Theodore Wallin, Ph. D., Prof. of Transport, Syracuse Univ.

Virgil Cover, Ph. D., Prof. of Transport Economics, Univ. of Georgia.

Mr. ALLOTT. Mr. President, an editorial published in the New York Times yesterday quotes the president of the Continental Airlines, Robert F. Six, as doubting that he would buy the Concorde for the California to Hawaii run, using that as an argument why our prototypes are not needed to determine profitability. The Times is not accurate with regard to Mr. Six.

The Times can make all the statements they wish about the uselessness of prototypes. But the airlines know we need a prototype when new technologies are involved, and when a new generation plane is untried. They know we need prototypes with which performance specifications can be measured—matters such

as range, payload, safety, and even environmental complications.

The lending institutions have said that their ability to finance the production phase depends in part on a proven project and a flying prototype.

Mr. President, I ask unanimous consent to have printed in the RECORD a letter to Mr. W. M. Magruder, Director of SST Development, from the president of Continental Airlines Robert F. Six, dated June 26, 1970. The letter concludes with this sentence:

I wish to assure you that we at Continental Airlines support fully the American SST program as it is now planned.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

CONTINENTAL AIRLINES,
June 26, 1970.

Mr. W. M. MAGRUDER,
Director, SST Development,
Department of Transportation,
Washington, D.C.

DEAR MR. MAGRUDER: This will acknowledge your letter of June 8, 1970 regarding our judgment on the viability of a production SST in the 1978 time period.

There is no question in my mind that the 1978 time period for the U.S. SST will enable the industry in this country to benefit from the expense of the Concorde development and also the Russian development and will increase the probability of the U.S. SST being a viable commercial aircraft. Should the United States not proceed with this project along the lines of the timetable currently being studied, I sincerely believe that the second generation Concorde will be developed and will obtain all the commercial airline market in the 70's and 80's with the possibility that the Russians will obtain a small portion of the world market.

In reference to speed, historically speed has been a demand by the world since the beginning and one only has to read history to find that to be a fact. To have a supersonic aircraft with sufficient range to join the various population centers of the world will give the traveler something he really wants and needs to conduct his business or enjoy his leisure with a worldwide scope. The altitude capability, coupled with the speed of the U.S. SST will permit much more efficient use of the world's airspace a d will help resolve some of the problems we face with the rapid population and travel growth.

I wish to assure you that we at Continental Airlines support fully the American SST program as it is now planned.

Sincerely,

ROBERT F. SIX.

Mr. ALLOTT. Mr. President, what are we talking about in the final minutes here? We are talking about two prototypes, and the money needed to develop them further. That is all we are talking about. We are voting for a balance of $134 million to the end of fiscal year 1971. What would be the cost of termination? Boeing and General Electric, $85 million; terminating the other contract liabilities, $10 million; termination of administrative costs, $2 million; to airlines for repayment, $22 million. That comes to a total of $119 million. The difference between what we are actually talking about, the difference between having something to show for 10 years of effort, and the action the others would have us take, is $15 million.

If we cancel now, what becomes of those beautiful planes that are nearing their final phase of construction? Do we take axes and chop them up and put them on a bone pile? What becomes of the thousands and even hundreds of thousands of drawings which have been worked out assiduously over these years by some of the best brains we have in this country? Do we put this work on a musty shelf in some storeroom, to be hauled out by our children and our grandchildren, who will point to the fact that we did not have the courage to face up to our responsibilities and look to the future for the technological progress of this country?

What about the personnel which has been discussed here? What about those who are working on this project, the 14,000 to 15,000 who will be immediately out of work? And that relates in immediate jobs to 40,000 or more.

What do we do with this personnel? Do we put them on relief? Do we take an aeronautical engineer and make a mass transit man out of him? Hardly. These are things which we have to consider today as we enter these final minutes of debate.

It seems to me there is, among all the trees in this forest, one great issue to be grasped by the people of the United States and the Members of the Senate. That issue concerns whether or not this country, contrary to the tendency of the last few weeks, months, or perhaps the last 2 years, accepts a new challenge technologically and scientifically. We can either do that or retrogress and step backward and backward, even going back, I suppose, as far as the Middle Ages, as some would like us to do.

To me, the challenge here is whether we push our own mental horizon a little further and we are able to grasp the stakes involved in this. I believe the future of American scientific efforts and our psychological outlook toward the future are involved in this matter.

We have stepped backward many times. I hope we do not step backward with respect to this matter.

Mr. President, in conclusion, I only say that this is our opportunity to look to the future. I urge the Senate to do so.

Mr. HUMPHREY. Mr. President, I shall vote today against continued Federal funding of the supersonic transport. My decision is not a hasty one. I have reviewed carefully the current debate, the testimony presented to the committees of Congress, and the views of many individuals who have written or talked to me.

This is not a black and white issue, with the "good guys" on one side and the "bad guys" on the other. There are compelling arguments on both sides, and Senators and others are no less honorable because they have come to contrary decisions.

I personally regret earlier statements in the debate and in the press which have charged public-spirited men with unworthy motives in supporting the SST appropriation. It is deplorable that personal attacks should be made and then motives questioned of men whose records of high public service and integrity go back for a generation.

Mr. George Meany, president of the AFL–CIO, has every right to express strong support for the jobs created by the SST project. He should make that case. Mr. Floyd E. Smith, president of the International Association of Machinists, similarly has the right to defend the jobs of the members of that union. I strongly deplore any implications that the expression of honest differences of opinion by these and other proponents are unworthy or improper.

The most telling argument of the proponents is the cruel effect on people—on workers and their families—from the loss of jobs if the SST is canceled. I do not take this lightly.

I have concluded, however, despite my concern for the loss of present jobs, that the SST is economically, technically and environmentally neither a good buy nor a good risk when compared to our urgent national needs and priorities.

It is certain that the SST costs the taxpayer will be asked to bear will far exceed the original or the present requests. The total requests to date exceed President Kennedy's original estimate by at least one-third. I do not doubt that cost overruns will continue to grow in the development stage, and if—as is nearly certain—the Government is forced to bear production costs as well, the total costs could be many, many times the original planned investment.

The environmental risks—the noise problem plus the cumulative air pollution impact in the upper atmosphere—are substantial and costly. Noise overland and sideline noise at takeoff may be solved, but each solution greatly increases development, production and operating costs. SST impact on the upper atmosphere is judged to be severely threatening by some authorities. The operation of the prototypes will not give us dependable answers to these questions, so careful scientific research must be carried out. But this research will take many years to complete.

The capacity of the airline industry to operate the SST without subsidy—even assuming no unpredicted additional costs due to inflation, or overruns, or difficulty in getting private financing for production—is extremely doubtful. I am not convinced that the increased speed of the SST, compared to existing aircraft, is sufficiently attractive to travelers that they will be willing to pay the higher cost of SST travel.

I emphasize my deep concern for the uncertainties faced by those now working in SST-related jobs. Those of us who vote to halt or delay this project have responsibilities to these families.

I, therefore, pledge my efforts to help these workers and these families.

I have joined, for example, as a cosponsor of the sense of the Senate resolution offered by Senators BAYH, PROXMIRE, and NELSON. That resolution commits the Government of the United States to find new productive ways to use the talents of those workers affected by the cancellation of the SST in the longer run, and to provide immediately transi-

tional assistance to the workers presently employed in the production of the prototypes.

Personally, I would and will reach out further to help the SST work force. I am prepared to ask all my colleagues—if the SST is cancelled—to vote now an equivalent amount of funds and authority to relieve the distress of workers affected, and to attempt to channel their skills and initiative into new jobs truly related to the national welfare.

Senator EAGLETON has proposed investing funds equivalent to the SST appropriation through our national laboratories, federally funded laboratories associated with universities and our aerospace companies to apply advanced research technology to our urgent human needs. This is a wise proposal which has my support.

Others have put forward plans for national conversion assistance for the aerospace industry, and for a national environmental laboratory to use in this field the available skilled technologists and workers.

We can find ways to put people to work and keep them at work which are not wasteful and which do contribute to urgent needs. We need to put the same energies as pushed the SST—and opposed it—behind programs of public service employment, for the rehabilitation of our cities, for the improvement of health care and its delivery, for the expansion and improvement of educational facilities and opportunities, for help to our poor and for the modernization of rural America. We must improve mass transportation systems, our airports, and air safety. And we need to wage a relentless war against the pollution of our environment.

The SST, in my judgment, does not begin to outrank any of these needs. Aside from the other compelling reasons to question the SST effort, I do not believe we can justify heavy Federal financing to benefit the few at the expense of other Federal efforts which could quickly and directly help so many.

We must help create jobs in place of those lost due to cancellation of the SST, but see to it that the Federal funds create jobs which directly contribute to a better quality of life in America.

Mr. MATHIAS. Mr. President, it is very difficult to reach a rational decision on the question of whether or not the two experimental supersonic transport prototype planes now authorized should be completed. In the first place, there is an emotional atmosphere which has become a very real part of the debate and which cannot be ignored. On the one hand, the construction of this plane, which will admittedly be primarily for use in foreign travel, seems to be a symbol of the Government's lack of relevance to the problems of housing and education and health and other pressing social concerns. On the other hand, the abandonment of the effort to develop a safe and swift plane for civil use might well be taken as a symbol of abdication of leadership with negative results in the SALT talks and other important world councils.

As the symbols clash, so do the facts. This much at least is clear: That the American supersonic transport must be ecologically feasible and economically feasible.

I am convinced that within the currently recognized perimeters of scientific knowledge a plane can be constructed that will not do violence to the environment. With a sufficient investment of time and resources, the major environmental problems can be overcome if they have not already been conquered. At the same time, I recognize that there are certain problems that are beyond the perimeters of contemporary science. These are questions such as possible diminution of the ozone with a resulting increase in ultraviolet rays on the earth's surface or the repetitive effect of exposure to sonic booms on the creatures that frequent the ocean areas over which the plane might fly. After diligent investigation, I cannot find that answers to the questions such as these are yet known.

There are, however, some very real facts that are known and must be considered. One of these is that there are two versions of supersonic civilian planes now in existence and soon to be available in the commerical markets of the aviation world. Assuming that these planes do enter production and operation they will constitute important units in the aviation of the eighties. We also know that in the aviation of the seventies American aircraft constitute the most important item in our export trade. Unless we proceed with a minimum of research and development in this field, our foreign trade will alter for the worse as we move from this decade to the next.

If we stop work today, clearly it is unlikely that there will be American participation in the supersonic transport market of the eighties. There also will be no American answers to the problems that have not yet been solved and we will find ourselves looking to Britain, France and Russia for solutions, as we will look to them for manufacture and sale of aircraft. On the other hand, if we continue work on the two experimental prototypes, we will retain the ability to make a decision while we probe for the unknown answers.

The contribution that could be made by an SST is not to take an individual traveler from New York to London between breakfast and lunch, but is rather that a single machine will do the same amount of work in a given period of time that twice as many conventional machines now do. If this is so, it clearly adds to the productivity of our society and will make a contribution to mankind, of importance to those who travel and those who do not.

There is one area of difficulty that has not yet been broadly discussed and perhaps properly so, because it lies largely in a speculative future. That is the second criteria for the question of economic feasibility. Looking ahead to the possible sale of an American SST around the end of this decade, it is impossible to forecast with either honesty or conviction whether or not there will be a consumer demand for the plane which will justify airlines in purchasing it, manufacturers in building it, and banks in financing it. Looking at the unit cost of an SST plane today, we may very well doubt whether the aviation industry will ever be able to get off the ground with such an enormous load. At the same time, an American of a generation ago who was contemplating the purchase of a DC–3 at $125,000 might have been shocked and dismayed at the projected cost of a DC–7 at $4 million, or a 747 at over $20 million. The economy did, in fact, expand to accommodate these expenditures. It may well expand sufficiently to support the SST, although no Member of Congress, of the administration, or of the aircraft industry can guarantee that this will be so by 1980.

A death blow to the SST today will be final as far as Government is concerned. The chances of resurrecting the project would be remote if the Senate acts adversely today. On the other hand, since investment to date plus cancellation costs come close to the total cost of completing the prototypes, there seems to be little to be gained from abandoning the effort at this moment while so many facts are still unknown. To continue would be to take an insurance policy at no additional premium cost. The timing of this vote, while necessary under our appropriation procedures, is extremely unfortunate, because we simply do not have all the facts necessary for the rational ultimate decision that every Member would like to make. The only way to reserve that final decision is to vote to continue funding the prototypes with the clear knowledge that all the questions are not yet answered and a firm determination that if the answers prove to be negative we will then have the strength of character to turn from this unproductive effort and remove the SST from our national agenda.

Mr. PROXMIRE. Mr. President, I yield 10 minutes to the Senator from Illinois.

The PRESIDING OFFICER. The Senator from Illinois is recognized for 10 minutes.

Mr. PERCY. Mr. President, before beginning my concluding remarks, I would like to address myself to the comments made by my distinguished friend, the Senator from Colorado.

The Senator asked a very pertinent question, whether we should turn aeronautical engineers into mass transit engineers. My answer is an unequivocal "Yes." We must convert our personnel and our facilities and what productive capacity we have in this country to meet the real needs, not the imaginary needs.

I would like to offer one specific illustration. Because we are cutting down in the space program and defense expenditures, we have a large number of scientists and physicists unemployed. It is estimated at the present time that these professionals are in excess of 40,000. We have 50,000 doctors needed in this country. If we continue in our universities to turn out physicists and chemists that we do not need and do not turn out the doctors that we do need, something is wrong with our society.

Mr. ALLOTT. Mr. President, will the Senator yield?

Mr. BIBLE. Mr. President, I have no time.

Mr. PERCY. I yield for a question.

Mr. ALLOTT. Mr. President, we cannot convert aeronautical engineers into doctors.

Mr. PERCY. I do not think that there is any reason why we cannot take an engineer and turn him into a radiologist. The University of Chicago Medical School is now engaged in a study to see what they can do to convert these highly trained and highly skilled people from an occupation where we no longer need them and convert them into an area of great need.

Mr. ALLOTT. The Senator thinks we do not need them. I think that we do need them.

Mr. PERCY. I did not mention politicians. I mentioned engineers and doctors. We could use more doctors.

The PRESIDING OFFICER. There will be order in the Sentae.

Mr. PERCY. Mr. President, I would like to summarize my feelings about the SST and list a few of the problems and the reasons why I think we should resoundingly reject the funding of the SST this afternoon.

After 9 months' debate on this appropriation request and nearly 9 years of public debate on the SST generally, I for one am ready to have the Senate bite the bullet and move forthrightly and to finally extricate the country from the tentacles of this highly seductive but, what I consider to be, ill-advised project.

Mr. President, it seems to me that the Senate is running the serious risk of permitting the SST issue to become an enormous legislative enigma, camouflaged by irrelevancies. Our attention is too easily diverted by patriotic pleas to "buy American." Our fears are too often fed by claims that foreign SST competition, specifically the Concorde and the TU-144, will destroy our aeronautical superiority and, in turn, our national prestige and security.

Our emotions are too easily played upon by unemployment estimates and statistics concocted and recited in an attempt to suggest that those who oppose Federal financing of the SST do so because of their callous disregard for the unemployed.

I am not impressed at all when the Soviet Union places ads in American magazines to say that the TU-144 is going into production and that they are going to open up a route between Moscow and Calcutta. That, to me, is no reason to build the SST, just to beat the Soviet Union.

How ludicrous it is for the Soviet Union, with their tremendous domestic needs at home, to be building a plane to fly from Moscow to Calcutta.

Their people have to wait 5 to 10 years to buy an automobile. They propose to fly their plane to Calcutta where poverty plagues almost every citizen.

If we are so foolish as to be stampeded into competing with the Russians for this reason, it is irrational. We would not then have any sense of our national priorities.

I therefore submit that we serve to stand better the national interest if we try to cut through the rhetoric and the emotion, the high-pressure sales pitches, and all the pressure put on us in this last 48 hours from high places, and focus on these three fundamental economic issues:

First. Is the expenditure of Federal money on the SST a sound investment for the American taxpayer?

Second. Is the investment an appropriate Federal undertaking?

Third. Is the investment worthy of receiving Federal money at this particular time?

In my judgment, the most persuasive case—indeed, the best case—taking into account the Federal deficit, taking into account the hard-pressed taxpayers, our national priorities and the precarious financial position of our aircraft manufacturers, our airlines, and the reluctance of the banks to put any of their money into this project—is to be made on the basis of the three economic issues I have raised concerning the economic viability of this plane.

This is not to say that the environmental issues are not very real. They are real. However, as a trustee of the taxpayers' money, I must ask is this a good investment? What does the taxpayer, the citizen of the United States, and the Nation get back on its investment?

Mr. President, it would be easier to determine if the investment in the SST is a sound one if we had more complete financial data. I ask my distinguished colleagues who have looked so closely at this contract why the principal contractor, Boeing, which was required by the terms of that contract to produce a financing plan for production of the SST on June 30, 1968, three times has set a different date for submission of financing plans? As a government, we have had to negotiate with them two extensions of the originally set time. The time for compliance now is June 30, 1972. In other words, we are being asked to vote on "a pig in a poke," and we are being asked to vote on something in connection with which the contractor was required and agreed to furnish a financing plan but has still not furnished that plan. In other words, are we being asked to vote on $1.3 billion or $5 billion or $11 billion or $15 billion? I do not want to cast a vote unless I know what I am voting for and what the limitation of any commitment is.

In view of the fact we have no answer from the contractor I will only presume that he has gone to the banks and they will not finance it, he has milked the airlines so they do not have any more money to put in, and the contractor does not have any more money to put in either. The contractor can only present the financing plan of the British and French, the national government. Consequently, the taxpayer now is being asked to finance this product. That is why I think there is a good reason not to support funding this project at this time.

There is more than a reasonable doubt that the airlines will be unable to buy and maintain the SST in the quantities promised by the Department of Transportation. Who could deduce otherwise from the profit-and-loss statements of America's airlines these days? In 1970 alone the Nation's 12 major airlines lost an estimated $123 million. Many are in no position to purchase and maintain the 747's. Reports at the end of last year indicated that the British and French had decided not to build four production models of the Concorde because the market outlook was so grim. In the United States no airline has converted its options to buy SST's into actual orders for the Concorde.

We have been told that prototype development will cost $1.3 billion, and the extent of Federal participation will be limited to the prototypes. But the nature of developmental research makes this promise illusory. If we are to have the SST, and accommodations required as a result of hypothesizing and testing must come during the developmental stages. This always means more money. It is in every sense open-ended research.

My doubts as to cost estimates, to the extent that we know them, do not end with the prototype projections. I cannot believe we will not be drawn into funding production as well. If there is any validity in arguing that we should not discontinue the SST at this point since it will mean a loss of those funds already invested, the argument will be even more persuasive at the end of the prototype phase. I am not saying I buy that argument; I am only indicating that the trap will be even more compelling at that point.

The most fundamental consideration involved in passing on a project such as this is the law of supply and demand. Discussion must terminate prematurely, however, since the whole project has been taken out of the marketplace. This has been one of my most persistent criticisms of this program. We have force-fed the design, we have force-fed production, we have force-fed financial support, and on the basis of this economic head-knocking, we are assuming there will be a market. We wind up forcing supply and presuming demand.

In answer, then, Mr. President, to the question concerning the wisdom of investing in the SST as considered according to the dictates of strict economic theory, we discover that we are making a decision on the SST without the benefits of the economic give-and-take of the marketplace, without cost data, on the assumption—and nothing more—that there will be a demand, and without any financing schedule or plan whatsoever. The managers of the Government's SST program have sacrificed hard-headed business sense for hard-sell salesmanship. Any director of any corporation who would decide to pursue an investment in these circumstances would be subject to removal from office and would probably be sued as well by the stockholders. No bank in the country would. I submit that as Senators our duty to the taxpayers is no less than a director's duty to his stockholders.

Is the investment in the SST an appropriate Federal undertaking? In general, Government assistance is devoted to those endeavors that cannot be carried out by the private sector and to those

projects that serve to benefit directly the public interest. The SST satisfied neither of these prerequisites.

The principal reason for the Government's role, as the FAA feasibility study made clear in 1967, is the high risk involved. There is nothing unusual about investing $1.3 billion in a technological venture in the private sector. Last year, American industry was provided $23 billion in new funds in the form of corporate bonds and $8 billion in the form of corporate stocks. Every year the auto industry raises $500 million for model changes alone. And the Alaskan oil development project will cost approximately $4.5 billion. When the capital required is extraordinarily large, several companies frequently invest. As Arthur Okun has said:

> By standards of the private financial marketplace, SST is a big project, but not an indigestible one.

So where is the private venture capital? We are seeking support for a commercial aircraft, but the banks, the investors, and the sources of private capital have not come forward. As Allen Ferguson wrote in yesterday's Wall Street Journal:

> The basic economic fact about the U.S. SST is that if it were expected to be economical, there would be no need to subsidize it.

What is unusual in the case of the SST is the small chance of success.

The risk factor and the absence of private support should raise red flags to the Government as they do to private enterprise. It is impossible to justify the assumption of this risk at high cost to the taxpayer if it cannot be justified in the private marketplace.

Mr. President, I believe American industry is only weakened by projects of this kind and that confidence of the public undermined. The business community has been relentless in its support of the free enterprise system. The reservations consistently expressed concerning the expanding role of Government have to a large extent been well founded. Yet, in the case of the SST, a few businessmen are asking the Government to step way over this line, ignoring the apparent contradiction between their requests for special assistance and their demands to be left alone.

In deciding whether the SST is an appropriate recipient of public funds, we must look to the direct and indirect benefits it promises. I suppose it has some value simply as a technological advancement. If successful, it will save flight time for its passengers. If there is a premium on time, as SST proponents suggest, passengers will pay for that advantage, thereby remunerating the companies which produce the plane and those who travel on it. But I can find no reason to impose the costs on those who will not fly in this plane. The larger community has no stake in its development, no interest to be served, no benefits to reap. Why then should the community be required to underwrite the project?

I indicated at the outset that it was not my intention to engage in a debate of national priorities at this time. But my discussion of the SST economics would be incomplete without directing an inquiry to the worthiness of the SST in terms of its claim on Federal moneys.

When it is recognized that every cent we put into this program is borrowed and that we must pay interest on this debt, when it is recognized that the SST must compete with every single program the Federal Government sponsors, it is easy to recognize that the proponents of the SST have a particularly difficult argument to support.

Mr. PROXMIRE. I yield to the Senator from California.

The PRESIDING OFFICER. The Senator from California is recognized.

Mr. TUNNEY. Mr. President, the entire debate surrounding the funding of the supersonic transport plane has been charged with emotion. One of the most unfortunate aspects of this debate has been the actions of the Nixon administration and their allies in using the aerospace workers of this country as political pawns in a battle that has become centered on the prestige of the administration rather than the economic well-being of 200 million Americans.

The SST, in my opinion and in the opinion of many others, is economically unfeasible. It will cost more jobs than it would create and it would present unknown hazards to our environment. There is no conclusive proof that it will in fact create 50,000 jobs. There is no conclusive proof that it will not despoil the upper atmosphere. There is no conclusive proof that it will not present a serious hazard to the health of our people.

I have long spoken out against the SST and maintained that position throughout my campaign for the Senate. My opposition has been a matter of conscience. It is based upon my belief that there are more important priorities for our country to be undertaking at this point in our history and it is based upon my belief that it will not give the aerospace industry the kind of long-term growth that it needs.

Yesterday, in California, a group of aerospace employees accused me of betraying their interests through my opposition to the SST. This charge is false, but it raises serious questions in my mind as to the type of exploitation that has been taking place with regard to this debate. How many aerospace workers have received both sides of the SST story? How many hundreds of thousands of dollars have been spent in promoting a massive propaganda campaign? Where has this money come from?

Has it come from donations from citizens who are truly concerned that the SST must be built or has it been induced from the paychecks of the aerospace workers through pressure? Has it come from the people who are working in an industry that has been ravaged by unemployment due simply to a lack of planning on the part of the Federal Government?

It is clear to me that the employees of the aerospace industry have been badly misled about the SST. They have been led to believe that the development of this project means economic salvation for them and their industry—when in fact it does not.

The pressure of lobbyists and the special interests is a tradition on Capitol Hill and always will be. But in the case of the lobbying campaign exerted on behalf of the SST we have witnessed a cruel game; a game that is being played on the men and women of the aerospace industry who work for a living. The SST is not a panacea for the domestic aircraft industry. It is not a question of national prestige or national defense and it is certainly not a question of betrayal on the part of those who oppose it as I do.

It is merely a question of commonsense.

Given the disparities in our society today; given the fact that the people of this country are still paying for a war that they did not start and that the President apparently cannot end; given the real needs that our country must meet, it is only commonsense that would dictate a no vote on the supersonic transport plane. And those who have taken this battle to the factory gates across America and played upon the fears and emotions of people; those who have utilized half truths and distortions in presenting their case can attain no victory. For even if they meet with short-term success today in the Senate, they will, in the long run, lose, for they are merely adding to the frustrations and alienation that so plague our land today.

Mr. DOMINICK. Mr. President, last December I announced my opposition to providing further funds for development of the SST. At that time I had serious reservations about certain aspects of the program. Certain questions, it seemed to me, had not been answered, particularly some of those relating to the environment. I was especially concerned about the reported side levels noise and some of the potential pollution problems. I was concerned that consideration and adequate examination of these potential problems had not been made by the supporters of the SST.

During the intervening period a complete reexamination of the entire program, including all of the issues, has been undertaken. In this regard, both the Senate and the House held extensive hearings. All of the proponents and opponents were given ample opportunity to express their views—all of the arguments for and against were laid on the table. The entire debate has received extensive coverage in the news media. The Nation today is far better informed on all aspects of the program than ever before. It has been a very useful and productive examination.

My personal and detailed study of all the hearings held during the period convinces me the SST prototype funding should be continued. Therefore, Mr. President, I will vote for continuing this $134 million appropriation.

One of my previous concerns was the possibility of supersonic flight over the U.S. land area. Mr. Magruder assured the Congress the SST would not conduct supersonic flight over the United States and the Senate has passed two bills specifically prohibiting supersonic flight over any part of the U.S. land areas. The bill passed last week, was carried unani-

mously and I am sure it will receive the same response in the House and will be promptly signed by the President.

I was also concerned about the reported noise level of the engines. As the result of focusing on this issue the contractor now guarantees the side line noise level will not exceed EPNdb 108, a noise level output less than the 747 and 707 aircraft and a noise limit required by the environmental pollution regulations.

While these primary concerns have been resolved there are other good reasons to continue the program at this particular time.

Cancellation would cost the taxpayers over $1 billion, and end completely any chance to recover these funds. After 9 years and in light of the most recent review of all aspects of the program it now seems imprudent not to proceed with the production of the prototypes.

Let me say, Mr. President, I am as concerned as anyone else about the possible environmental impact of the SST. I have examined each of these issues very, very carefully and I am convinced in my own mind we are not creating a monster that will do irreparable harm. Certainly the two prototypes will not endanger the environment, but rather, will assist in further verifying environmental data. Environmental safeguards are built into the program that will insure production is not begun if it is determined that any environmental hazards exist. Secretary Volpe has also assured me that each production aircraft must meet all specifications in this regard or it will not be certificated.

It is important to point out, Mr. President, that the existing contract for the two prototypes does not provide in any way for the subsequent financing of production aircraft. This has been clearly established as a matter between the Boeing Co. and the private financial market. This is extremely important as it means that before any fleet of supersonic American jets enter the commercial field, the airlines and the private financial institutions must determine whether the planes will be economically sound while the Government determines whether they meet environmental requirements.

From a national point of view the American aircraft industry today supplies approximately 85 percent of the world's commercial aircraft fleets. We are the undisputed world leader now and if we are to remain in this position we must continue to progress. With every other country their own commercial aircraft fleets are completely subsidized. Ours is not. Our own SST program has been criticized as a subsidy program and its initial development costs have been heavily supported by general revenues. It is my own belief that in terms of priorities we may have made a mistake in 1962 when Government revenues were allocated to the development process for commercial aircraft; but we have the contract; it has been funded for 9 years; it is a sharing program which may return to the taxpayer all moneys involved if the planes are ever certificated and purchased and there is a potential to realize a return of about a billion dollars.

One final point, Mr. President. I have been a strong supporter and believer in advancement through technology. This has made our country great in the past and will continue to assure our greatness in the future. The technology involved in this program will have substantial spin-offs that will even further assure our ability to control pollution and protect our environment.

In summary, although the priorities on spending are tight and I will not vote for any Government subsidy for commercial production, it is my belief that a slight balance is in favor of continuing the funding of our present contract through the two prototype models.

Mr. CASE. Mr. President, for a decade or more we have been hearing about revolutionizing civil aviation with development of a supersonic transport capable of going twice or three times the speed of sound.

In the United States, the Kennedy administration decided to undertake to build the biggest, fastest plane of all. The venture would be financed largely with Federal funds.

Estimates of the cost to the Federal Government have ranged from $1.3 billion toward the development of two experimental models, or prototypes, to upwards of $5 billion if the Government is obliged to finance the expensive production phase.

There always have been many who have doubted the plane's soundness. Their ranks have grown over the years and finally, I believe, the majority of the people of the country are against the SST.

I think it is accepted by most that environmental and economic concerns are the underlying factors in the growing public opposition to the SST. Also, there is a well-founded feeling that the funds could be used more profitably for more urgent national needs.

First the environment.

Everyone agrees that an SST flying faster than the speed of sound will generate sonic booms which will be an intolerable annoyance to those who hear them. The booms may even cause physical damage.

Because of this I introduced the first bill to prohibit commercial supersonic flight over the continental United States. I am happy to say that legislation embodying the principle of my bill has passed the Senate twice since December. But there is a question whether the SST is economically feasible if overland flights are not permitted.

Moreover the SST engines, as presently designed, will cause intolerable sideline noise as the plane prepares to take off. While the Department of Transportation states that it has made progress in reducing the racket, it is not willing to put the "quieter" engines on the prototypes for all to see and hear.

And it is agreed that noise suppression equipment will cut down the efficiency of the plane and will reduce its economic viability.

But our anxiety about the SST's environmental impact is most deeply aroused by the possibility that the plane may irreparably pollute the earth's atmosphere, perhaps even reducing the ozone layer which shields our planet from the sun's most lethal rays.

The scientific evidence on these matters is too slight to justify any final conclusions, but it seems plain that without more knowledge we dare not take a chance. I emphasize that building the prototypes is not necessary to giving us this information and that they will not help.

The great weight of economic opinion is against the SST. Economists from opposite ends of the spectrum, such as Paul Samuelson and Milton Friedman, oppose it.

They ask the simple question:

If the SST will be as profitable as its proponents claim, why not let private enterprise take over the venture?

It has shown no inclination to do so. The conclusion is inescapable that doubts about the economic soundness of the SST program extend to the aviation industry itself.

I shall vote against further Federal funding of the SST.

Mr. BIBLE. Mr. President, I yield 8 minutes to the distinguished minority leader.

THE RELATIONSHIP OF INCREASES IN PRODUCTIVITY AND EMPLOYMENT TO RESEARCH AND DEVELOPMENT EXPENDITURES

Mr. SCOTT. Mr. President, of all the crucial items of vital business I have seen and heard debated in the U.S. Congress, I can think of very few that have been accompanied by as vast a plethora of information, and misinformation, as we have heard in connection with the matter before us today.

The pros and cons of Government support of this Nation's supersonic transport program have been bisected, disected, vivisected, accepted, rejected, disconnected, and put back together again—over and over—in Congress after Congress.

Yet how much more do we know—how many new facts do we have—compared to those early days when an enthusiastic Congress—and an enthusiastic Nation—first conceived the planning of this great project?

I submit that there is a new point of focus, a new aspect to be considered, and I would like to address myself to that factor at this time.

We must not overlook the cold clear fact that research and development—pure and simple—has been a primary force behind the advances made by this great Nation of ours. Let me take as a touchstone the rate of growth of our gross national product during the years 1960 to 1968. For the Nation as a whole it was 71 percent for that period. Now compare the rate of growth of industries that have wisely invested heavily in research—and who have developed that research for the benefit of us all. For example, during the period 1960 to 1968 the airframe manufacturing industry expended approximately 10 percent of its sales for research and development, and during that same period its growth and productivity was about a phenomenal 120 percent. Its level of sales increased from $9.1 billion in 1960 to $17.4

billion in 1968, which is a 91.2-percent increase in sales. Let me stress my conviction that this increase of $8.3 billion in sales was primarily the result of the investment in research and development. Equally important is the increase in employment: over 100 percent for the same period of time. More than doubling total employment in 8 years is a superior achievement by any man's standards.

The examples do not end with the airframe industry. When we look at the plastic industry we find another industry that has expended approximately 10 percent of its sales revenue for research and development over the same 9-year period, and it too has enjoyed a major growth in productivity, namely 44 percent. Plastics sales grew approximately 113 percent, from $4.7 billion in 1960 to $10 billion in 1968. At the same time employment increased approximately 113 percent, from 135,000 to 287,000. Note once again the dramatic rewards associated with research and development investment.

The electrical and electronic equipment industry is another pace setting industry in terms of major gains in productivity, sales and employment during the 1960's. When it invested some 10 percent of its sales to research and development, that industry reaped a 59-percent increase in productivity, a 112-percent increase in sales, and a 44-percent increase in employment. In absolute terms, sales increased a phenomenal $12.4 billion, and approximately 500,000 new jobs for labor were created. These encouraging cases show what research and development can mean for our country's economy, work force, productivity.

To strengthen my point, let us consider the case of several industries which have failed to meet a need for a continuing improvement in their products. For example within the railroad industry, where research and development expenditures averaged about 0.5 percent of revenues, employment from 1958 to 1966 actually declined by some 210,000. Compared to a gross national product increase in excess of 60 percent during these years, revenues for the rail industry only increased some 10 percent. The maritime industry, where the equivalent of ⅓ of 1 percent of revenues has been invested in research and development, experienced a 2-percent decline in seafaring employment from 1960 to 1968. Commercial merchant ship revenues, even during a period of inflated demand, declined about 22 percent from about $324 million in 1962 to $252 million in 1968.

Are we—today—voting to condemn our aviation industry to that same dismal fate our railroads and maritime interests are now plagued with, and to balance them out and involve the Federal Government in commitments far greater than the amount under consideration here?

If we are to issue such a condemnation here in this great U.S. Senate this afternoon, Mr. President, let us do so openly. Let us admit that the failure of the railroads and the maritime to prosper came not only because these industries were unable to expend sufficient funds for research and development, but also because Government itself failed to assume collateral involvement in that same vital field.

Who in this Chamber this afternoon can claim that our railroads and our shipping lines would not be in their present state of decay and financial embarrassment had they received the benefits of expansive, broad-brush research and development programs?

Who in this Chamber can deny the fact that growth and progress in any industry comes from building a better mousetrap, or a new mousetrap, or a less expensive one?

The research and development cost of the supersonic transport was determined many years ago to be beyond the capacity of the industry alone. Did that fact stand in the way of previous Congresses? Did the U.S. Senate say then: "You can't afford it, therefore the Nation cannot have it?" Look at the vast sums of Government-subsidized research and development moneys invested in the space program, and the multitude of technological "spinoffs" that have resulted from that great program. And, Mr. President, we must look now at the multitude of benefits we will receive from Government involvement in research and development for commercial supersonic flight. Not only in increased technological expertise, but also—as has been discussed here many times before—in terms of getting a solid return on our research and development investment.

And I would venture this very valid point. New and improved, fully researched, innovative products—hallmarks of American technology—have almost invariably been laborsaving devices, timesaving devices.

And with labor saved, and time saved, the American people have received a double blessing. In addition to an increased ability to enjoy the fruits of our skills—through additional recreation, education, and social achievement—we have had more time, more manpower, to apply to further research and development in quest of our goals.

Yes, in this Nation, technical productivity has led to increased human productivity. Here, in this great Nation, we are not slaves to our machines. We are the greatest Nation in the world because we have had the initiative and the incentive to have faith in our ability to conduct thorough research and to enhance progressive development.

Mr. President, I cannot envision our actions here this afternoon resulting in a sudden, ill-informed halt to such progress.

When this vote is cast, 13,000 men and their families will wait with bated breath to see if they work tomorrow.

The U.S. economy is the richest and most productive economy in the world. Much of the growth in our economy and the benefits which accrue to American citizens are due to the ability of American businesses to continually develop new and better products. My earlier remarks make it quite clear that the highly successful industries in the U.S. economy are those whose growth is largely based on steady improvement in their products. I believe that the lesson from these statistics is quite clear: If we are to continue our growth in national and individual wealth for all Americans, we must continue to support research and development efforts designed to seek out new facts and to apply them to industrial processes.

Mr. PROXMIRE. Mr. President, I yield 5 minutes to my colleague from Wisconsin.

Mr. NELSON. Mr. President, I do not think there is anything new to be said about the issue of whether or not the prototype SST's should be built, but I am compelled to observe that I have been puzzled by the tactics of the administration in pushing for the appropriation. Finally, after watching it for months, I have come to suspect that the administration forces handling the SST argument for the administration have been heavily infiltrated by anti-SST people. There is no other way, in my judgment, to account for the incredible incompetence in the way in which they have handled the fight.

I call attention to the fact that the administration has appointed three committees now to evaluate the SST. The first one was a well-controlled in-house ad hoc committee made up of representatives of the various Federal agencies all under control of the executive department. After they made their studies, they were so critical of the program that the administration decided they had to appoint another committee. Even Dr. DuBridge, a member of the ad hoc committee and the President's science adviser, came out against funding the SST. So in order to get a different result they appointed a distinguished science committee. Dr. DuBridge selected all 16 scientists, headed by Dr. Richard Garwin. So the science committee, again selected by the administration, made a study and filed a report with the administration.

No one has seen the report except the administration. I have asked the proponents—I think this is the sixth time since last fall—to just bring the administration's science committee's report to the floor of the Senate and let us tell the public and the Congress what the committee of scientists told the administration. But, no, they will not bring the science report to the floor.

When Dr. Richard Garwin appeared on the House side and the Senate side, he said he could not disclose what this group of distinguished scientists said to the administration. He said he was not at liberty to do that. But Dr. Garwin said he could give his personal opinion and his personal opinion was that we should not build it.

Then when Mr. Magruder was pushed to reply as to why the White House would not disclose the findings of the science committee appointed by the administration, he said he opposed releasing the report on the ground that Dr. Garwin was not a qualified expert either on aviation or the SST.

So now we have a situation where Dr. DuBridge selects a committee whose report is rejected by the administration because it came out on the other side. There are 15 other scientists on the committee named by Dr. DuBridge on behalf of the

administration. Is the administration going to claim that all 16 of the scientists selected by them to evaluate the project are incompetent? How preposterous can they get about this?

Thus we will not be able to see the Garwin report because it is against the administration's position. It is as simple as that.

So we have one report by the Cabinet-level ad hoc committee which the administration has rejected and one by the Garwin committee which the administration will not make public. Now they have appointed a third committee. This is the Environmental Advisory Committee. I think they have tightened up on it enough now so that they will be sure they will get a report they will not have to hide or reject. As I look down the list, so far as I can see there is only one distinguished environmentalist on this in-house committee.

The PRESIDING OFFICER. The time of the Senator has expired.

Who yields time?

Mr. BIBLE. Mr. President, how much time do the proponents have?

The PRESIDING OFFICER. The remaining time allotted to the majority leader is 14 minutes.

Mr. BIBLE. Mr. President, I am prepared to yield the first 7 minutes of that to the distinguished Senator from Washington (Mr. MAGNUSON).

Mr. MAGNUSON. Mr. President, I have said so much on this matter over the past few months that I do not know how I can emphasize over and over again some of the points that have been cited both pro and con.

I just listened to my friend from Wisconsin talk about Dr. DuBridge. I just read in the paper that Dr. Daird, who is now the President's scientific adviser, has decided the other way.

That is what has been going on on this issue all the way through.

Mr. President, the Senate has heard extensive debate on the civil supersonic aircraft—SST—development program. The Appropriations Committee has recommended completion of the prototype development program by a vote of 17 to 5. A decision to halt funding of the SST program would mean the loss of all of the $865 million appropriated to date plus $178.5 million in costs associated with termination. This does include the reimbursement of the $58.5 million contributed by the airlines for which a strong moral obligation of reimbursement by the Government exists.

The age of commercial supersonic air travel is here. Other nations are already well into the testing phases of commercial supersonic aircraft. The British-French Concorde has already flown at mach 2. Recently, the Soviet Union announced that the TU–144 would start operating between Moscow and Calcutta in October of 1971. The United States has no real alternative to proceeding with the construction and flight testing of the two SST prototypes. We must maintain our capability for production of a U.S. SST for delivery to airlines in the latter part of this decade. Failure to do so would result in irretrievable losses in world aviation leadership, aviation industry employment, and exports of civil aircraft, one of the few remaining positive balance of trade accounts.

U.S. exports of commercial aircraft have shown a strong positive trade balance over the past 10 years in the U.S./Foreign Trade Exchange. Failure of the United States to enter the SST market could result in a total unfavorable balance of trade effect in the aircraft account which the administration conservatively estimates at $22 billion but which could run as high as $45.6 billion between 1978 and 1990. As Secretary John Connally stated before the Senate Appropriations Committee:

Aircraft manufacture, the industry center stage here today, is another prime example of our technological advantage. Most of the people, mail, and freight transported through the air today are flown in American-built airframes powered by American-built engines. Our export sales of aircraft of all types in the last 10 years totaled over 10.6 billion which dwarfs the 4.6 billion in sales of the rest of the world. The United States today manufactures and sells 84% of the world's aircraft fleet. I believe we must maintain our position of superiority in this important technological industry.

I believe Secretary Volpe makes the argument for continuation of the prototype program as persuasively as any administration official:

This year we are asking for $290 million, which represents approximately three percent of our total Department of Transportation budget. Funding at lesser levels will increase total costs and increase development time. With significantly decreased funding, the experienced teams of scientists, designers and engineers working on this program would be disbanded. Thus the program would suffer irreparable damage. The team of subcontractors would undoubtedly be dissolved and the U.S. Government would be faced with contract termination costs. To save a few dollars this year would, in my opinion, be counterproductive. This is a program which, unlike many others, is on schedule within cost and faces no insurmountable technical problems. We cannot and should not disrupt it by shaving off a few dollars in the name of economy. That, Mr. Chairman, would truly be false economy.

This is the moment of decision for this program, and in a larger sense for this nation's entire attitude toward the advancement of technology. As we stand on the threshold of commercial supersonic flight, we can decide either to keep or throw away this country's aviation leadership. We can decide to shrink from our responsibility to find the real answers on environmental effects, or we can conduct the necessary flight tests to find solutions. And this decision rests with you in the Congress.

The choice is yours. And history will judge the course which this Congress takes during the next 20 days. This Administration has not wavered in its support of the SST. We are supporting, in the strongest way possible, a bipartisan decision made by four United States Presidents, a decision to build and test two experimental planes. We do not shrink from our responsibilities. We look forward to finding answers, not withdrawing from our search.

The SST program is not a Government subsidy, as suggested by its critics. In 1961 the U.S. Government concluded that it was essential to develop a commercial supersonic transport. Accordingly, the Government sponsored a competition for manufacturers to determine who would build the airframe and the engines. The U.S. Government has remained a partner, along with the airlines and the manufacturers, and has a contractual obligation to complete the prototype program. The Government is involved because of the magnitude of the funding required, as are the British, French, and Soviet Governments involved in the Concorde and TU–144 programs. However, one important distinction exists—the U.S. program is an investment shared by the manufacturers, airlines, and the Government. The Government's investment will be fully returned through royalties on aircraft sales by the sale of the 300th airplane. A conservative market forecast for sales of U.S. SSTs is 500 aircraft; by the sale of the 500th aircraft, the Government will recover in royalties every dollar of its investment plus an additional billion dollars. Those royalty payments will begin with the first SST sold, not, as the opponents contend, with the 101st airplane sold. In addition to the royalty payments, it is estimated that by 1990, the Government will also receive $6 to $7 billion in corporate and personal taxes as a result of the production of an American SST.

Concern has been expressed by some that the SST could have an adverse effect upon our environment. The Appropriations Committee, of which I am a member, has firmly taken the position that we will not "buy aviation leadership at further cost to our environment." Environmental questions were explored thoroughly in our hearings and a number of witnesses testified on these matters. I was particularly pleased with Secretary Volpe's statement that the Nixon Administration would not favor allowing SST production if any serious environmental problem had not been solved after the prototype phase. There does not appear to be any evidence or factual substantiation that the SST will have a harmful impact on the environment. The charge is made that the SST will greatly pollute the atmosphere. Yet, jet aircraft provides a cleaner mode of transportation per passenger mile or travel than any other mode of mass transportation.

Another theory has been postulated that the SST will alter the world's climate by introducing water vapor or particulants into the upper atmosphere, or that a possible alteration of ozone content in the upper atmosphere will increase ultraviolet radiation at the earth's surface to hazardous levels. The experts quoted by the critics who raise these points admit that these conclusions are mere speculation, unsubstantiated by any factual evidence.

I have gathered together some of the testimony presented to the House and Senate Appropriations Committees on the impact of the SST on the upper stratosphere. For example, Dr. William W. Kellogg, Associate Director of the National Center for Atmospheric Research, in his March 3, 1971, testimony before the House Appropriations Transportation Subcommittee, expressed the following judgment:

In short, I have found no environmental basis for delaying the government's SST program to develop two prototype SSTs. The best estimate we have today regarding the climatic aspects of large-scale SST operations indicates that the effects will be generally imperceptible and trivial when compared to the changes we experience from natural causes.

Dr. S. Fred Singer, Deputy Assistant Secretary, Department of the Interior, in his March 4, 1971, testimony before the House Appropriations Transportation Subcommittee, expressed the following judgment:

Two years from now, well, actually probably in a shorter time . . . we should be able to say to you 2 years from now with

a 99.99 per cent certainty that nothing will happen, or it may turn out with a very small probability that something would happen if these measurements turn out the other way.

Concerning his present degree of certainty of no adverse effects, Dr. Singer further stated in his testimony:

I would say I am 95 percent sure that there will be no problem from an SST fleet.

All available scientific data from military supersonic flights, which total over 500,000 hours of supersonic flight, fails to substantiate the speculation of the SST critics. It is admitted by all, including the opponents of the SST, that the development and flight of the two prototype SST aircraft will not have any significant impact on the environment. Despite the lack of evidence that the SST will have a detrimental impact on the environment, the DOT has formed an inter-agency environmental research program as well as a committee of many of the foremost environmental experts in the country to make certain that all questions regarding possible adverse environmental effects are answered prior to mass production of the SST.

Aircraft flying at speeds in excess of sound create sonic booms. The Government's policy, however, is that the U.S. SST will not be allowed to fly over land at speeds or conditions that would cause a sonic boom to reach the ground. Last Friday, March 19, the Senate passed my bill, S. 1117, the sonic boom and sideline noise bill. This bill would prohibit boom-producing airliner flights over U.S. territory and it would also restrict the airport noise levels made by the SST. This bill would also prevent foreign-made aircraft from making boom-producing flights above U.S. territory. The same ban was proposed by the Federal Aviation Administration, but now the Senate has—for the second time—approved this measure by a vote of 71 to 0.

The sonic boom bill also requires the Transportation Department to modify all appropriate contracts for the development of prototype civil supersonic transport aircraft to provide that such contracts will not be satisfactorily completed until the contractors demonstrate that all production models developed from the prototype aircraft can comply with the noise level standards at the noise measuring points now specified for new subsonic jet aircraft in sections C36.3 and C36.5 (a) and (b) of appendix C—evaluated as prescribed by appendix B—of part 36 of the Federal Aviation Regulations, as in effect on the date of enactment of S. 1117.

During House hearings, Dr. Leo Beranek, chairman of the SST Environmental Advisory Committee, said:

The noise objectives for the commercial SST are consistent with the noise levels specified in FAR 36.

He went on to say:

There does not appear any technical reason why a commercial supersonic transport cannot be built which will be acceptable with regard to noise, and we conclude from the other evidence that was presented to us and which is contained in reports that have been sent to the airlines for them to study, that this airplane will achieve the goals that the SST office has set up for it in terms of range and load-carrying factor.

I feel that this bill provides a strong guarantee to those environmentalists who fear persistent sonic booms and unreasonable airport noise created by the SST would not be prevented by the FAA. Some critics also believe that economic necessities will require supersonic flights over land in order to make this plane profitable. The passage of S. 1117 would ban these overland boom-producing flights, and such flight would not be needed in any case to make the SST economically successful, according to available market surveys.

Concern has been raised over the question of emissions from the SST. This problem, however, has been covered under the Air Quality Control Act which was passed last year. Regulations regarding aircraft emission are being developed by the Department of Health, Education, and Welfare.

Similar misunderstandings exist with respect to aircraft noise. The amount of noise associated with the SST has been overstated by many of the program's opponents. Aircraft takeoff and approach noise is the type of noise about which people who live in the neighborhoods adjacent to airports complain. The community noise level from an SST will be less than that of existing commercial jets. The "sideline" noise of the SST, which is confined almost entirely to the airport, is anticipated to be about equal to the noise made by the present jets and the manufacturers are working diligently to insure that goal. In fact, a recent noise breakthrough has been made with the development of the "chute noise-suppressor"; with this equipment, the SST will easily meet the 108 EPNdb standard for existing subsonic jets.

Production of the U.S. SST will bring direct employment to 50,000 workers in American industry over a 15-year period. In addition, approximately 100,000 jobs will be created as a secondary effect of the direct jobs.

As George Meany, president of the AFL–CIO said before the Senate Appropriations Committee:

Bad as conditions are in the Nation as a whole, they are even worse in centers of aerospace production. As Floyd Smith, president of the Machinists and Aerospace Workers told the House Appropriations Committee last week, and I quote, "The Nation's aerospace centers have been disaster areas." It doesn't take much digging into the facts to verify this description. In Connecticut, where United Aircraft is the major manufacturing employer, unemployment is 7½ percent. In California, in communities surrounding Lockheed, McDonnell-Douglas and Aero Jet-General the jobless rate is almost 9 percent. In Seattle and its suburbs, the home base of Boeing, unemployment has risen to almost twice the national average.

In the past, when aerospace has experienced periodic declines, the companies have always tried to keep their pools of technological expertise intact. The ax generally has fallen heaviest on production workers. They have felt it heaviest again this time. But now, for the first time, hard-to-replace teams of engineers, scientists, and technicians are also being chopped off.

During the last 18 months alone, 300,000 people have been let go in aerospace plants around the country. This includes 17.3 percent of the technicians, 12.9 percent of the scientists and engineers, and 27½ percent of the production workers.

Declines of such magnitude cannot be easily and quickly absorbed by other industries. In fact, the shockwaves of aerospace unemployment have hit employers in other industries. In Seattle alone, 71,500 people are out of work.

This certainly is strong evidence regarding the employment issue.

In addition to the future effect of the production SST program on employment and revenue levels, the current SST prototype program has an immediate favorable effect on employment in U.S. industry. This effect—20,000 of the direct labor force working on the prototype program—will help stabilize employment at a time when the aviation industry has been following a marked downward trend since mid-1968.

I want to suggest something else: This has nothing to do with the merits or demerits of the supersonic transport. But I have another reason for this. Almost 100,000 people are walking the streets in two counties in Washington, and everybody, including the Federal Government, is trying to find jobs for them.

This is a personal matter. It is pretty serious. It just happens that situation exists in my State. We do not have a lot of jobs involved. We have only half of the contract, and approximately 78 percent of that work is going to be done by subcontractors; but every job counts out in Washington these days.

I want to point out that I have a particular reason for getting people back to work, doing something good for the future of the United States. I hope Senators will weigh the facts and forget the fantasies that have been raised by certain groups.

One final issue deserves the most serious consideration by the Senate and that is the question raised by Senator PROXMIRE on the issue of whether the operation of a fleet of SST's will have an impact on ozone concentration in the upper stratosphere, thus causing an increase in the amount of ultraviolet energy passing through the stratosphere and atmosphere to the earth's surface. Senator PROXMIRE's leading authority, Dr. James McDonald, has suggested that greater amounts of UV would cause increased cases of skin cancer.

It appears to me that Dr. McDonald's conclusions may be premature. Dr. McDonald is the same scientist who stated that flying saucers manned by humanoid-type creatures might have been responsible for power failures in the Northeastern section of the United States—Housing hearing, July 29, 1968, UFO: Symposium, J. Edward Roush, House Science and Astronautics Committee.

However, regardless of the source of the theory, we who are responsible for the SST debate have sought out a reasonable opinion on this issue. The Department of Commerce Technical Advisory Board—SST panel—a group composed of 16 scientists from business and academia, none of whom are employed by the Government, have commissioned a study of solar radiation and skin cancer. The panel project is under the direction of Frederick Henriques, chairman of the Board of Technical Operations, Inc. Mr. Henriques is a photochemist by profes-

sional training. He contacted Dr. Harriet Hardy, associate director of the Medical School at MIT, and she in turn commissioned a paper by M. A. Pathak, Ph. D., principal associate in dermatology, department of dermatology, Harvard Medical School and Massachusetts General Hospital, and Thomas B. Fitzpatrick, M.D., professor of dermatology, Harvard Medical School, and chief of dermatology service, Massachusetts General Hospital. I am placing in the RECORD their paper entitled "Solar Radiation and Skin Cancer—A Brief Review."

May I read from page 21 of their paper:

Thus it appears that ozone concentration, irrespective of SST effects, is variable in terms of space, time, season, latitude, and is governed by natural complex processes which among others include photochemical processes, atmospheric circulation, meteorological transport process, etc. The effect of the pollutants on solar ultraviolet energy and its day to day variation will in a limited manner contribute to the filtering effect of erythemogenic radiation. It is hard for us, therefore, to entirely agree with the views presented by Dr. James McDonald of the University of Arizona for the following additional reasons:

1. The process of cancer induction by ultraviolet light appears to be cumulative and hence the total amount of exposure becomes a very important factor rather than a single or a few severe exposures. The increase in the habit of sunbathing in our affluent society alone (creating more actual sunshine hours) would tend to shift the incidence of cancer of the skin irrespective of whether the spectral quality of solar radiation changes as a result of SST fleet operations.

2. The cancers of skin, particularly basal cell epitheliomas and squamous cell carcinomas are curable conditions. Skin cancer accounts for, at the most, two percent of all cancer deaths.

I hope that these conclusions will help to put into perspective this skin cancer charge. As many Senators know, I originally had passed the legislation that created the National Institute of Cancer. I also have very personal reasons for being concerned about cancer in any form; thus, I felt it vitally important to present this new evidence to the Senate.

I do not disagree with the sincerity of the opponents in this matter. The only thing that bothers me is that there has been a great deal of misinformation, quoting people here and quoting people there who know nothing about this problem at all and who are not qualified.

The Senator from Wisconsin just mentioned an eminent environmentalist. What is an environmentalist today? Everybody is an environmentalist. Members of the Senate have a pretty good education in the environment, no matter what committee they serve on. They listen to people from all walks of life talk about it.

When we talk about not having an SST, we are saying no American SST. It is as simple as that. That is what it amounts to. I do not know whether it is being suggested that we should completely fold up and not do anything about our present role in world aviation. If the proposal is defeated today, it will be leading America down the road, not to a second-rate nation in aviation, but a third-rate nation, when we now hold the lead.

That has to be consistent, I am sure, with the environment. I have said many times that environment is a relative thing with a lot of people. We cannot all live near Walden's Pond, but there must be somewhere between Walden's Pond and disregard for the environment, or the people who manufacture motors in Wisconsin that pollute the air. There has got to be a position somewhere in the middle.

This is how we built America with the newer and better technology. This is the strength of America. As my colleague so aptly said, we are likely to run into a technological Appalachia in America, if we do not watch out. This has been the might and the strength of America, and I believe we can do it and be consistent with all the things that have been said here about the environment.

The Senator from Wisconsin can bring in 25 scientists on this side, and I will bring 25 on the other side, put them all together in a room, and they never will agree on anything. There is only one way we can find out, and that is to build these two prototypes.

Someone has asked, "How can you find out with 100 hours?" Listen to me: No one suggests that is all we have to fly a prototype. We can fly it a thousand hours if we need to. If the results are not satisfactory or sufficient, I would be the first to say, "Fly it 5,000 hours, if you have to, to find out what we need to know." That 100 hours is just the usual thing that is put in contracts when you build planes.

So I do not know. When you say, "No SST," do you mean "No American SST?" If that is what Senators want, so be it. But I just cannot believe that Congress wants to say, "Lock it up and put it in mothballs," after we have spent more than $800 million, and the companies have spent almost 24 percent of that amount; and the airlines have put in, what is it, $82 million already, on more than 120 orders?

Do we want to say that, because some arguments are left unanswered. I do not know some of these unknowns myself. I do not think any of us know them. Do we want to say that, for the sake of some arguments about it, we are just going to walk away and quit?

I have heard a lot about priorities. Mr. President, I have sat on the Appropriations Committee, handling all of the things that the opponents have been talking about, dealing time after time with the question of priorities, how much money for rapid transit have I fought for? How much for urban renewal? Who has done more than I have, moneywise, to promote health programs, or social welfare? I take my hat off to no one in the Senate in being a champion of the people's concerns.

The cancer scare: I think that was a cruel thing to do to me. I received a letter today from a teacher in my State, a grade school teacher, who said:

You must be for cancer, because you are for the SST.

The PRESIDING OFFICER. The Senator's 7 minutes have expired.

Mr. BIBLE. I yield the Senator 1 additional minute.

Mr. MAGNUSON. Mr. President, I established many, many years ago an order of priority. There are no priorities involved here at all. If we cancel this contract, we will have to pay out more money than is appropriated here. Where are we going to find that?

In the Appropriations Committee, things stand on their own merits. I never could understand, when we talk about these things, why a great big country like the United States, with the technology we have, cannot do both things.

The PRESIDING OFFICER. The Senator's additional minute has expired.

Mr. MAGNUSON. You are letting American air superiority go down the drain, and a few years from now we will be a third-rate power in world aviation.

The PRESIDING OFFICER. Who yields time?

Mr. PROXMIRE. Mr. President, I yield 1 minute to the Senator from New York.

Mr. JAVITS. Mr. President, I voted against the further funding of the SST last time and I have decided to vote against it again now.

I continue to believe that the development of this aircraft, at this time and in this way, is an unwise investment for the Federal Government in terms of the allocation of our Federal financial resources, and it also compounds the fiscal problems of our airlines which could very well result in further calls upon the Federal Government for major financial assistance or even a takeover.

I have carefully weighed again the arguments and evidence relating to the development of the SST—including its potential impact on the economy, on the environment, on employment, on international trade, and on the present circumstances of war, inflation, and budget limitations. While I believe many factors weigh heavily against its further development, I am concerned principally with the economic considerations and the question of our national priorities. These are the two principal factors which led me last year and lead me now to vote against including these additional funds for the SST.

I find it unseemly that at a time when we are involved in a war and when so many other crucial needs remain unfulfilled that we should be marching ahead with a federally funded program that is more of a luxury than a necessity.

I would support a reduced appropriation for research and development with the intention of slowing down the pace of the development program. In that way, although total costs may be somewhat higher, actual yearly spending would be reduced, leaving funds for more urgent programs. There also would be more time to investigate and correct environmental hazards and pass, in a more deliberate fashion, any necessary environmental-protection laws. Furthermore, the general economy and the depressed financial conditions of the airlines would be given time to improve. With this additional time, the airlines would not be forced by business competition to buy SST's in these financially

difficult times. Further, a slower pace may allow development of the SST to leapfrog beyond the present concept of supersonic travel to perhaps an even more advanced aircraft.

With respect to the impact of the SST on trade, I consider the continuance of an enlightened U.S. trade policy far more important to our balance-of-payments position and our export interests than the SST. The balance-of-payments argument with respect to the SST cannot and should not be separated from our overall trade policy. Last year, a member of the Council of Economic Advisers observed that if the United States goes protectionist, the SST would be dead in terms of export potential. I am not convinced that the administration or the Congress will follow an overall trade policy conducive to the promotion of our export interests.

If we go down the road of closing our market to the goods of others without regard to internationally accepted injury criteria, if we do not pass the generalized preferences scheme and thus encourage Europe and Japan to go regional, if we choose the course of trade war over trade peace, who will buy the SST?

Unfortunately, this is an up or down vote, one which does not leave any latitude for efforts to slow down the program and one which could likely result in the cancellation of the program. But I believe the only way I can record my views is to vote "no."

I, for one, do not want to see this program completely discarded. I believe other financing arrangements, not principally dependent on the Federal Government, can be found. Certainly if the SST is going to be as commercially sound and technically feasible and as safe to the environment as is claimed and if the foreign supersonics continue to show reduced productivity potential and technical capacity, the financial community should be willing to invest its own resources in it—a fundamental marketplace test of any new product.

My efforts and desire to help maintain employment in the aircraft industry in New York State and elsewhere in the Nation remain undiminished. But there are other ways to help in this crucial technological area besides the subcontracting work on the SST. Note for example the award for the prototype of the new Air Force support plane to a New York aircraft manufacturer.

Certainly, my desire to help the industry and the workers is one of the reasons I would support a modified program. But in this instance I believe now, as I did at the time of the last vote, that the weight of the evidence requires me to vote against this particular appropriation in the interest of the overwhelming majority of the people of my State.

Mr. PROXMIRE. Mr. President, I yield myself such time as I may require.

Mr. President, what happens if we do not proceed with the funding of the SST? The administration made that clear last Thursday night, when they said, quoting the New York Times:

> Clark McGregor, counsel to President Nixon, said yesterday that the White House was holding intensive talks with key officials on alternate ways to finance the supersonic transport if Congress finally shut off direct funds for the plane.

Frankly, I do not think the private financial market will fund the plane at this point. Perhaps they will; I hope so. I think it would be an excellent solution if they would.

But, Mr. President, let us consider. We have already put $864 million into research and development on this plane. Because of termination costs, we will have put more than $1 billion into research and development on a private plane by the time we have finished, and if at that point the private market cannot decide this is worth going ahead with, I say there is something wrong with it.

There has never ever been a commercial plane on which the Federal Government has directly put anything like a billion dollars for research and development. We have done it in this case, and from this point it seems to me that we should let the private market decide.

Mr. President, I wish to speak very briefly on the jobs argument. The most prominent economists in the country—Dr. Samuelson, Dr. Friedman, Heller, Okun, and virtually all of the well-known economists—have agreed repeatedly that there just is no truth in the notion that we will get more jobs by going ahead with this program than we would with the same amount of money in any other.

But I call attention, just once again very briefly, to the fact that one very distinguished economist, in the Wall Street Journal yesterday, pointed out that because the SST will be more expensive to operate on most routes because it will be necessary either to have a surcharge or to require subsonic planes to charge more than they do now, it will mean that the airline industry will begin to charge higher fares; and he pointed out that the whole tradition and the whole business experience of the airlines has been that they have been able to maintain and increase their passenger flow because they have reduced fares. If they start going in the other direction, they are going to lose business; and as they lose business, that means fewer jobs in this industry. It means fewer planes being built; it means fewer jobs for virtually everyone in it.

Mr. President, there has been almost no communication in the Senate on the economic tradeoff if the Boeing Co. goes ahead in supplying noise suppressors on this plane. The testimony that we had, and the opinion of every expert that I could find, is that if you put an additional 50,000 pounds of noise suppressors on, which it is now argued they would do, it would mean you would reduce the range of this plane by 800 miles. Second, you would probably cut into the passenger load; third, you would greatly increase the fuel consumption; fourth, you would increase the capital cost of the plane; and, fifth, you would increase the operating cost of the plane. All of this would make the SST even less economical, and make it more necessary to charge higher fares and escalate the cost of international air travel.

Mr. President, it has been made clear that between the time we finish funding the prototype and the time the first SST goes into operation so that it is yielding revenue, there will be a necessity for raising from $2.5 to $4 billion. Mr. President, I submit that the likelihood of this being possible from the airline industry, the manufacturers, or the banks is virtually zero. That means Uncle Sam will have to come in again, as the Senator from Illinois (Mr. PERCY) has pointed out, not just for a billion dollars, but probably a great deal more than a billion dollars.

The principal argument made over and over again on this plane is that if we do not build it, the British and the French have the Concorde, which they will build. Last December when we voted on this issue, that was a viable argument; it made some sense. But now, Mr. President, we have had the finding of the British Overseas Air Lines and the disclosure by Air France that the Concorde is economically not competitive, that it will cost twice as much per passenger mile as the subsonic jets. Furthermore, we know that the capital cost will be very great. Most of the airlines experts I have talked to have told me that they consider the Concorde now to be out of the market, and I have seen very strong evidence that our airlines are likely to cancel their Concorde orders within the next 60 to 90 days.

Mr. President, the significance of this is that we no longer have to be concerned with building our own SST to compete with the British-French Concorde. The argument has been raised that we have the Russian plane and that this is a serious competitor. The Russians have never been able to sell a commercial plane, for a very clear reason—because when they sell a plane, they do not care about the economic cost of it, and it gives them a very strong political power to withhold the spare parts, to withhold maintenance. This is the reason why the Russians have not been able to sell their planes anywhere in the free world until recently, when they sold three or four to Italy. They have never sold any to any of our airlines. Neither the British-French Concorde nor the Russian plane is likely to be a real competitor.

Let me say, in conclusion, that there has been a great deal of talk here about our turning our back on technology. I think that every Senator I have talked with takes great pride in the fact that America is the technical colossus of the world, the marvel of the world. We are way ahead of other countries in technology, far more productive than the Soviet Union. In fact, we produce twice as much as they do. We have far more in research and development. when we consider our industrial and governmental expenditures. We are the marvel of the world in space, in automobiles, in virtually every kind of technological achievement. We do not have to be out in front with a plane which is not economical, a plane which does not compete, a plane which, on the basis of the best evidence we can get, does not provide a real service for the overwhelming majority of our people.

Where we should be out in front is not in this area but in the area of housing,

in the area of providing an improvement in infant mortality, in the area of providing better mass transit, in the area of building a better and stronger America.

I yield the remainder of my time to the distinguished Senator from Illinois.

Mr. PERCY. Mr. President, I think what we must do today is establish the real needs for America and formulate projects that serve the best interests of the entire people, which will employ our citizens over the long haul, in fulfilling our real needs and can justify themselves on the basis of national interest—projects that do not require the kind of high-pressure salesmanship that this project has received, projects that can meet the test of the marketplace. The SST fails to meet these criteria.

If the Senate today votes to fund the SST, we will, in my judgment, be launching a Federal airborne Edsel, with no more justification than Henry Ford had in continuing the automotive Edsel.

The program will not survive the marketplace and the pressure of competition. The program will simply not meet the laws of supply and demand.

As a trustee of the public funds, I have sought to apply the same kind of judgment that I would to a business investment. This project fails to meet, in every respect, the test of economic viability.

The PRESIDING OFFICER. The time of the Senator has expired.

Who yields time?

Mr. BIBLE. Mr. President, how much time remains to the proponents?

The PRESIDING OFFICER. Six minutes.

Mr. BIBLE. I yield the remaining 6 minutes to the distinguished Senator from Washington.

Mr. JACKSON. Mr. President, throughout the debate on funding for further development of the civil supersonic transport in this Congress and the past Congress I have assumed the good faith and honest concern of the program's opponents. I have tried to meet, and I have urged the Department of Transportation to try to meet, all questions concerning the program with straightforward factual responses. Where the answers were available, and they have been available in almost all cases, they have been made part of the record. Where further research is indicated, it has been undertaken. Where questions remain they have been acknowledged and efforts have been initiated to find the answers.

It is my view that the case for proceeding with the prototype program is so compelling that anyone who honestly and objectively examines the facts and weighs the evidence must conclude that it is irresponsible to terminate this program.

Unfortunately, the debate on this matter has been carried on largely without reference to the facts. Instead, the debate has revolved around "worst possible case hypotheticals" propounded by opponents of the program; around predictions of environmental disaster by people not qualified to speak on the issues they raise; and on the theoretical assertions of university economists who have never studied aircraft economics, let alone SST economics.

What are the facts?

The facts are that over the past 9 years we have invested, with provisions for a return of this investment if the aircraft is produced, $864 million in this program. In addition, industry has invested $217 million; the airlines have invested $59 million. The total national investment in the program is $1,140 million.

The committee amendment the Senate will shortly vote on provides authority to spend an additional $134 million on the program for the remainder of this fiscal year.

What are the alternatives to continuing the program; what do they cost in dollar terms?

If the program is terminated, the Federal Government must pay these costs: $85 million to Boeing and General Electric; $10 million for terminating contractual liabilities; $2 million in administrative costs; and $22 million to the airlines as repayment of downpayments on SST's.

This is a total of $119 million. But this is not all; in addition, the Government is under moral obligation to return $59 million to the airlines which they advanced in good faith for development of the two prototypes. When this is added in, the total termination cost comes to $178 million.

The issue posed and the alternatives posed by today's vote are as follows:

First, should the program be continued at a cost of $134 million; or

Second, should the program be terminated at a cost of a minimum of $119 million, or a more realistic cost of $178 million?

That is the choice facing the Senate.

What are the facts on employment?

The facts are that if this program is terminated, 13,000 American scientists, engineers, technicians, and workingmen will be out of jobs tomorrow; 4,900 of these people work for the Boeing Co. in my State. They will enter a labor market already staggering under an unemployment rate of 18 percent. They will join 71,500 people in the Seattle area who are unemployed, 66,000 who are receiving welfare, 72,000 who are receiving food stamps.

Also, 6,700 of the people who would lose their jobs tomorrow work for subcontractors in 44 different States; 1,400 of these people work for General Electric.

Should the Senate fail to provide funding for the program, I would anticipate that by next week Members of the Senate who have opposed the program will be hearing from these people. They will be hearing of the misery, the tragedy, and the insecurity of being unemployed at a time when unemployment stands at a 9-year high and unemployment nationally stands at 6 percent.

I would urge my colleagues in the Senate to think about what they will say to these American men and women before they vote this afternoon. They will find little comfort in the discussions of "priorities" I have heard to date.

Some of my colleagues in the Senate have tried to pooh-pooh the employment picture. They have tried to convey the impression that this program does not affect American labor. Some of them are embarrassed making this contention. Do not think for one moment that American labor is not concerned about this program.

George Meany went before the Senate Appropriations Committee, in one of his rare appearances a few weeks ago. I want to read from his testimony before the committee. This is what he said:

> So, Mr. Chairman, the issues in this fight for this relatively small appropriation go far beyond the question of merely keeping the SST alive.
>
> We're not merely fighting for 42,000 jobs now and 150,000 in the future. We are fighting to conserve one of America's most important industries.
>
> We are not asking for a handout. We are asking Congress to fund a program which will not only keep people off unemployment and welfare rolls but which will create billions of dollars worth of new revenues.
>
> We are not trying to make work for workers, engineers, technicians and scientists in aerospace. We are trying to insure that America maintains its technological lead in its most sophisticated industry.

I want Senators to pay special attention to the next quotation, because Mr. Meany is fed up with this argument. We have been hearing a great deal about the "jet set," as if the civil supersonic transport is something to take care of the "silk stocking" crowd. This is what Mr. Meany said:

> We do not view the SST as a "plaything for the international jet set" but as the top of a product line that can help to stem and reverse the Nation's dollar drain.
>
> For these reasons, the AFL–CIO believes that continued development of the SST is in the national interest. And for these reasons I urge this subcommittee—and the Senate—to approve this appropriation.

Mr. President, some of our colleagues have come up with all kinds of rationalizations about this program. It has been said that it is minor in the way of employment. But they are not fooling the working men and women of this country—and make no mistake about it. Mr. Meany feels very deeply about this, and the millions of people who are in organized labor feel strongly about it. They know that it goes way beyond this particular program, because if it is defeated, there are other programs that will soon be the target for similar action.

So let us not kid ourselves into thinking that by voting to kill this program the working men and women of this country and their leaders in organized labor are being fooled. Labor feels very strongly about the jobs and the technology which are at stake.

Mr. President, thoughtful people who are concerned about the environment and technology assessment cannot help but be distressed by the quality of the debate on this program, by the emotionalism and hysteria which has prevailed, and by the failure to address the real issues involved.

The SST has become a symbol for those in this country who are frustrated by the fact that science and technology have not solved all of the social problems we face. The reaction has tended to be to oppose science and to oppose technology. This is a negative attitude. It does not solve problems.

I deeply regret, Mr. President, that

real environmental problems, real problems in technology assessment do not receive the attention from Congress, from environmentalists and from the media which has been given to the SST. I do not understand why it is so easy to marshal support to oppose a program such as the SST, and so difficult to get any support for undertaking an effort to establish critically needed environmental programs such as a national land use policy or a national program for technology assessment.

The supersonic transport program is a program to build two prototypes. No one has ever claimed the prototypes would have any adverse effect on the environment. The opponents of the program have constructed a "strawman" to attack. The strawman is a fleet of 800 federally subsidized SST's which fly over land causing sonic booms, skin cancer, and pollution of the atmosphere.

This is fiction. It is not honest debate. It does not reflect well on the policy analysis and decisionmaking capability of the Senate.

I invite those who are concerned about the environment to proceed with research and development of this program. Let us find out what the facts are. Let us base policy decisions on facts as opposed to hypothetical assertions and emotionalism.

I also invite my colleagues who have recently expressed concern about environment and technology assessment to join with me in developing a national land-use policy which influences the quality of life and surroundings in every town, city, and county of this country.

This is hard work. It involves basic legal, institutional, and social changes. It will receive little or no television coverage. Few people will write about it in the newspapers. But, development of a national land-use policy is without question the Nation's No. 1 priority if we are to improve the quality of life and surroundings.

In this field there are no strawmen arguments to assault; there will be no dramatic confrontation, no easy symbol of public frustration to heap abuse upon.

Mr. President, it has been 12 years since the first study group was formed within the FAA to examine technical, economic, and operational aspects of commercial SST development, and even before that our aircraft companies were studying SST design possiblilities on their own. As a result of this very extensive work, we now have within the United States a tremendous bank of data, experience, design information, tooling, mockups, and hardware that only awaits the final effort to bring two flying prototypes into being and to reap the reward of actual flight test and verification of these most advanced supersonic cruise aircraft in the world.

If we stop now, if America says "quit," what do we get from this tremendous investment of human and monetary resources? In truth, I am afraid—very little. A major loss, of course, would be the disbanding of our highly skilled and qualified team of supersonic aeronautical scientists, engineers, and technicians. Without these people the mass of drawings, data, mockups, and machines would become quite academic in value. Another loss would be the $1,140 million national investment already made in the development of commercial supersonic aircraft technology—$864 million Federal, $217 million industry; $59 million airlines. A third loss would be the forfeiture of all future benefits—employment, technology, balance of payments—that would flow from an eventual production of a successful supersonic aircraft.

If the program is canceled, the Government would, of course, own all the data, patent rights, tools, mockup, and hardware already built, but the worth of all this rapidly evaporates if we disband the men and women who have developed the essential science, technology and hardware. There would be vast losses in all the other areas of SST expertise. These include titanium technology, advanced aerodynamics, automatic flight control systems, environmental control systems, and, of course, the very successful propulsion system. Here we have the actual flight test status engine running, and already the specification thrust and fuel consumption values have been demonstrated and even bettered. Who can use this engine? It represents a giant step forward, but without the flying prototypes to power, it will have no use. There just are not any U.S. aircraft advanced enough to use it.

This is a grim picture. It shows a colossal wasted effort, if we should choose to stop short just when the goal is within sight. If the program is terminated we forfeit all chances for future success in an outstanding technological achievement that could bring great future benefits to our people.

Mr. President, I urge my colleagues to vote "yes," to support continued development of this important program.

Mr. President, we will be making a mistake that we will regret for years to come if we cause a termination of this program. It will cost jobs, technological and almost $200 million to liquidate the termination costs.

Mr. President, I yield the floor.

Mr. MANSFIELD. Mr. President, has all time now expired?

The VICE PRESIDENT. All time has now expired.

Mr. MANSFIELD. Mr. President, I ask for the yeas and nays on the committee amendment.

The yeas and nays were ordered.

Mr. MANSFIELD. Mr. President, I suggest the absence of a quorum.

The VICE PRESIDENT. The clerk will call the roll.

The assistant legislative clerk called the roll and the following Senators answered to their names:

[No. 29 Leg.]

Aiken	Burdick	Eagleton
Allen	Byrd, Va.	Eastland
Allott	Byrd, W. Va.	Ellender
Anderson	Cannon	Ervin
Baker	Case	Fannin
Beall	Chiles	Fong
Bellmon	Church	Fulbright
Bennett	Cook	Gambrell
Bentsen	Cooper	Goldwater
Bible	Cotton	Gravel
Boggs	Cranston	Griffin
Brock	Curtis	Gurney
Brooke	Dole	Hansen
Buckley	Dominick	Harris
Hart	McIntyre	Schweiker
Hartke	Metcalf	Scott
Hatfield	Miller	Smith
Hollings	Mondale	Sparkman
Hruska	Montoya	Spong
Hughes	Moss	Stennis
Humphrey	Muskie	Stevens
Inouye	Nelson	Stevenson
Jackson	Packwood	Symington
Javits	Pastore	Taft
Jordan, Idaho	Pearson	Talmadge
Kennedy	Pell	Thurmond
Long	Percy	Tower
Magnuson	Prouty	Tunney
Mansfield	Proxmire	Weicker
Mathias	Randolph	Williams
McClellan	Ribicoff	Young
McGee	Roth	
McGovern	Saxbe	

Mr. BYRD of West Virginia. I announce that the Senator from Indiana (Mr. BAYH) is necessarily absent.

I further announce that the Senator from North Carolina (Mr. JORDAN) is absent because of illness.

Mr. GRIFFIN. I announce that the Senator from South Dakota (Mr. MUNDT) is absent because of illness.

The VICE PRESIDENT. A quorum is present.

Mr. SCOTT. Mr. President, I rise to ask the Chair to state the question. As I understand it, the question is on the adoption of the committee amendment; but I would appreciate a ruling from the Chair. As I understand it, a vote in favor of the committee amendment would be a vote in favor of the appropriation of $289 million.

The VICE PRESIDENT. That is correct. A vote for the committee amendment would be in favor of the appropriation.

Mr. PROXMIRE. Mr. President, may I clarify that. Those in favor of the committee amendment are voting for the SST.

The VICE PRESIDENT. That is correct.

Mr. PROXMIRE. A "nay" will be a vote against the SST.

The VICE PRESIDENT. The question is on agreeing to the first committee amendment, beginning on page 2, line 5.

Under the previous order, during the yea and nay the Sergeant at Arms will clear the Senate Chamber of all aides to Senators who have not been specifically authorized to be present.

The Chair wishes to caution the galleries that under the rules of the Senate it is imperative that there be no demonstrations or any evidences of misconduct on the part of the galleries. The Chair hopes that the galleries will cooperate in this so that it will not be necessary to take any further action.

On this question the yeas and nays have been ordered and the clerk will call the roll.

The legislative clerk called the roll.

Mr. BYRD of West Virginia. I announce that the Senator from Indiana (Mr. BAYH) is necessarily absent.

I also announce that the Senator from North Carolina (Mr. JORDAN) is absent because of illness.

I further announce that, if present and voting, the Senator from Indiana (Mr. BAYH) and the Senator from North Carolina (Mr. JORDAN) would each vote "nay."

Mr. GRIFFIN. I announce that the Senator from South Dakota (Mr. MUNDT) is absent because of illness and, if present and voting, would vote "nay."

The result was announced—yeas 46, nays 51, as follows:

[No. 30 Leg.]

YEAS—46

Allott	Eastland	Moss
Baker	Ellender	Pearson
Beall	Fannin	Randolph
Bellmon	Fong	Saxbe
Bennett	Goldwater	Scott
Bible	Gravel	Sparkman
Boggs	Gurney	Stennis
Brock	Hollings	Stevens
Buckley	Hruska	Symington
Byrd, W. Va.	Inouye	Taft
Cannon	Jackson	Talmadge
Cook	Long	Thurmond
Cotton	Magnuson	Tower
Curtis	Mathias	Young
Dole	McClellan	
Dominick	McGee	

NAYS—51

Aiken	Hansen	Muskie
Allen	Harris	Nelson
Anderson	Hart	Packwood
Bentsen	Hartke	Pastore
Brooke	Hatfield	Pell
Burdick	Hughes	Percy
Byrd, Va.	Humphrey	Prouty
Case	Javits	Proxmire
Chiles	Jordan, Idaho	Ribicoff
Church	Kennedy	Roth
Cooper	Mansfield	Schweiker
Cranston	McGovern	Smith
Eagleton	McIntyre	Spong
Ervin	Metcalf	Stevenson
Fulbright	Miller	Tunney
Gambrell	Mondale	Weicker
Griffin	Montoya	Williams

NOT VOTING—3

Bayh	Jordan, N.C.	Mundt

The VICE PRESIDENT. The Chair again reminds the occupants of the galleries that under the rules of the Senate demonstrations are prohibited and asks the cooperation of the galleries in this respect.

On this vote, there are 46 yeas and 51 nays. The amendment is rejected.

Mr. MANSFIELD. Mr. President, I ask for the yeas and nays on final passage.

The yeas and nays were ordered.

The PRESIDING OFFICER. (Mr. BUCKLEY). The next committee amendment will be stated.

The assistant legislative clerk read as follows:

On page 2, line 12, change "SEC. 2." to "SEC. 3."

The PRESIDING OFFICER. The question is on agreeing to the amendment.

The amendment was rejected.

The PRESIDING OFFICER. If there be no amendment to be proposed, the question is on the third reading of the joint resolution.

The joint resolution was read the third time.

Mr. BIBLE. Mr. President, I suggest the absence of a quorum so that we may have a little quiet.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. BIBLE. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. BIBLE. Mr. President, I ask that the Senate proceed to vote on final passage of the joint resolution.

The PRESIDING OFFICER. The question is on final passage. The yeas and nays have been ordered, and the clerk will call the roll.

The assistant legislative clerk called the roll.

Mr. BYRD of West Virginia. I announce that the Senator from Indiana (Mr. BAYH), and the Senator from Washington (Mr. MAGNUSON) are necessarily absent.

I also announce that the Senator from North Carolina (Mr. JORDAN) is absent because of illness.

I further announce that, if present and voting, the Senator from Indiana (Mr. BAYH), the Senator from North Carolina (Mr. JORDAN), and the Senator from Washington (Mr. MAGNUSON) would each vote "yea."

Mr. GRIFFIN. I announce that the Senator from South Dakota (Mr. MUNDT) is absent because of illness and, if present and voting, would vote "yea."

The Senator from Arizona (Mr. GOLDWATER) is detained on official business.

The result was announced—yeas 94, nays 1, as follows:

[No. 31 Leg.]

YEAS—94

Aiken	Fannin	Muskie
Allen	Fong	Nelson
Allott	Fulbright	Packwood
Anderson	Gambrell	Pastore
Baker	Gravel	Pearson
Beall	Griffin	Pell
Bellmon	Gurney	Percy
Bennett	Hansen	Prouty
Bentsen	Harris	Proxmire
Bible	Hart	Randolph
Boggs	Hartke	Ribicoff
Brock	Hatfield	Roth
Brooke	Hollings	Saxbe
Buckley	Hruska	Schweiker
Burdick	Hughes	Scott
Byrd, Va.	Humphrey	Smith
Byrd, W. Va.	Inouye	Sparkman
Cannon	Jackson	Spong
Case	Javits	Stennis
Chiles	Jordan, Idaho	Stevens
Church	Kennedy	Stevenson
Cook	Mansfield	Symington
Cooper	Mathias	Taft
Cotton	McClellan	Talmadge
Cranston	McGee	Thurmond
Curtis	McGovern	Tower
Dole	McIntyre	Tunney
Dominick	Metcalf	Weicker
Eagleton	Miller	Williams
Eastland	Mondale	Young
Ellender	Montoya	
Ervin	Moss	

NAYS—1

Long

NOT VOTING—5

Bayh	Jordan, N.C.	Mundt
Goldwater	Magnuson	

So the joint resolution (H.J. Res. 468) was passed.

Several Senators addressed the Chair.

The PRESIDING OFFICER. The Senator from Louisiana.

Mr. LONG. Mr. President, I ask unanimous consent that I may yield to the Senator from Idaho (Mr. CHURCH) without losing my right to the floor.

The PRESIDING OFFICER. Without objection, it is so ordered.

AUTHORIZATION FOR PRINTING ADDITIONAL COPIES OF THE 1970 REPORT OF THE SPECIAL COMMITTEE ON AGING

Mr. CHURCH. Mr. President, I submit a resolution which would authorize the printing of additional copies of the 1970 report of the Special Committee on Aging, "Developments in Aging: 1970," and ask unanimous consent for its immediate consideration.

The PRESIDING OFFICER. The resolution will be stated.

The assistant legislative clerk read the resolution, as follows:

S. RES. 84

Resolved, That there be printed for the use of the Special Committee on Aging one thousand eight hundred additional copies of its 1970 report to the Senate, entitled "Developments in Aging—1970".

The PRESIDING OFFICER. Is there objection to the present consideration of the resolution?

There being no objection, the Senate proceeded to consider the resolution.

Mr. CHURCH. By having the additional copies, which we require, printed at the same time as the regular quantity, we can effect a saving to the Government of almost $2,000. I have discussed this action with the acting chairman (Mr. CANNON) and the ranking minority member (Mr. PROUTY) of the Committee on Rules and Administration; and in view of the circumstances, they have agreed to interpose no objection to this unanimous-consent request.

The PRESIDING OFFICER. The question is on agreeing to the resolution.

The resolution (S. Res. 84) was agreed to.

ANNOUNCEMENT OF APPOINTMENTS

The PRESIDING OFFICER (Mr. BUCKLEY). The Chair, on behalf of the Vice President, pursuant to Public Law 84–1028, announces the appointment of the following Senators to the Board of Visitors to the U.S. Military Academy: The Senator from New Mexico (Mr. MONTOYA), the Senator from Hawaii (Mr. FONG), and the Senator from Kansas (Mr. PEARSON). The Chair also announces the appointment, by the chairman of the Committee on Armed Services, of the Senator from Nevada (Mr. CANNON) to be a member of the same Board.

THE 196TH ANNIVERSARY OF PATRICK HENRY'S IMMORTAL SPEECH

Mr. THURMOND. Mr. President, one hundred and ninety-six years ago this week, our Nation came to the sticking point of its first constitutional crisis. As a nation, we were inchoate and unformed. Our Constitution was the Constitution of Great Britain. The crisis was whether or not we should sever ourselves from the constitution of the mother land.

The voice that articulated that crisis, and made our Nation live was the voice of Patrick Henry. His cry was the immortal sentence,

Give me liberty or give me death!

But that immortal sentence sometimes overshadows the long, constitutional argument which Henry proposed. Nor do we pay attention to the fact that Henry well understood the consequences of his argument. If we wish to preserve our constitutional rights, he argued, we must fight—he said:

I regret it sir, we must fight! An appeal to arms and to the God of Hosts is all that is left us.

Today it is fashionable in some circles to deride our present Constitution and the intentions of its authors. It is considered great sport by some to deride the necessity of military strength to protect ourselves and to protect our liberties. There is talk about reversing our priorities, even, as though it were possible to give our liberties second priority.

Today we are faced with a threat more grave than that faced by the colonists, and our constitutional rights are under attack from every direction. It is time, then, to recall the speech of Patrick Henry, and to recall to ourselves that the first priority is to liberty, and that death is the only alternative of honorable men.

Mr. President, Patrick Henry's speech was made at the Second Virginia Convention in session at historic St. John's Church in Richmond. That body was no ordinary political gathering, but an assemblage that included men who had been active in defending their just rights as British subjects against usurpation. Among them were such leaders as Thomas Jefferson, Edmund Pendleton, and Benjamin Harrison; Richard Henry, Richard, and Francis Lightfoot Lee; Patrick Henry, and George Washington.

Called for the purpose of determining the position that Virginia should take in the mounting crisis, the convention was divided, one faction desiring to postpone action and another led by Patrick Henry demanding immediate preparation for supporting New England patriots.

The resolution introduced by him asserted that a well regulated militia is the natural strength and only security of a free government and directed that Virginia be immediately put into a state of defense.

Henry, following George Washington, was the last to speak, giving the world an immortal address that still reverberates among free peoples in all continents.

I think, then, that it would be worth our while to listen to Patrick Henry's famous speech once more, and to put ourselves back into that famous convention as Henry rose to speak as follows:

Mr. HENRY. No man thinks more highly than I do of the patriotism, as well as abilities, of the very worthy gentlemen who have just addressed the house. But different men often see the same subject in different lights; and, therefore, I hope it will not be thought disrespectful to those gentlemen, if entertaining, as I do, opinions of a character very opposite to theirs, I shall speak forth *my* sentiments freely, and without reserve. This is no time for ceremony. The question before the house is one of awful moment to this country. For my own part, I consider it as nothing less than a question of freedom or slavery. And in proportion to the magnitude of the subject, ought to be the freedom of debate. It is only in this way that we can hope to arrive at truth and fulfill the great responsibility which we hold to God and our country. Should I keep back my opinions at such a time through fear of giving offense I should consider myself guilty of treason toward my country and of an act of disloyalty toward the majesty of Heaven which I revere above all earthly kings.

Mr. President, it is natural for man to indulge in the illusions of hope. We are apt to shut our eyes against a painful truth—and listen to the song of the siren till she transforms us into beasts. Is this the part of wise men engaged in a great and arduous struggle for liberty? Are we disposed to be of the number of those who, having eyes, see not, and, having ears, hear not, the things which so nearly concern their temporal salvation? For my part, whatever anguish of spirit it might cost, *I* am willing to know the whole truth; to know the worst and provide for it.

I have but one lamp by which my feet are guided; and that is the lamp of experience. I know of no way of judging the future but by the past. And judging by the past, I wish to know what there has been in the conduct of the British ministry for the last ten years to justify those hopes with which gentlemen have been pleased to solace themselves and the house? Is it that insidious smile with which our petition has been lately received? Trust it not, sir; it will prove a snare to your feet. Suffer not yourselves to be betrayed with a kiss. Ask yourselves how this gracious reception of our petition comports with those warlike preparations which cover our waters and darken our land. Are fleets and armies necessary to a work of love and reconciliation? Have we shown ourselves so unwilling to be reconciled that force must be called in to win back our love? Let us not deceive ourselves, sir. These are the implements of war and subjugation—the last arguments to which kings resort. I ask gentlemen, sir, what means this martial array if its purpose be not to force us to submission? Can gentlemen assign any other possible motive for it? Has Great Britain any enemy in this quarter of the world to call for all this accumulation of navies and armies? No, sir, she has none. They are meant for us: they can be meant for no other. They are sent over to bind and rivet upon us those chains which the British Ministry have been so long forging. And what have we to oppose them? Shall we try argument? Sir, we have been trying that for the last ten years. Have we anything new to offer upon the subject? Nothing. We have held the subject up in every light of which it is capable; but it has been all in vain. Shall we resort to entreaty and humble supplication? What terms shall we find which have not been already exhausted? Let us not, I beseech you, sir, deceive ourselves longer. Sir, we have done everything that could be done to avert the storm which is now coming on. We have petitioned—we have remonstrated—we have supplicated—we have prostrated ourselves before the throne, and have implored its interposition to arrest the tyrannical hands of the ministry and Parliament. Our petitions have been slighted; our remonstrances have produced additional violence and insult; our supplications have been disregarded; and we have been spurned, with contempt, from the foot of the throne. In vain, after these things, may we indulge the fond hope of peace and reconciliation. *There is no longer any room for hope.* If we wish to be free—if we mean to be free—if we mean to preserve inviolate those inestimable privileges for which we have been so long contending—if we mean not basely to abandon the noble struggle in which we have been so long engaged, and which we have pledged ourselves never to abandon until the glorious object of our contest shall be obtained—we must fight! I repeat it, sir, we must fight!! An appeal to arms and to the God of Hosts is all that is left us!

They tell us, sir, that we are weak—unable to cope with so formidable an adversary. But when shall we be stronger? Will it be the next week, or the next year? Will it be when we are totally disarmed, and when a British guard shall be stationed in every house? Shall we gather strength by irresolution and inaction? Shall we acquire the means of effectual resistance by lying supinely on our backs, and hugging the delusive phantom of Hope, until our enemies shall have bound us hand and foot? Sir, we are not weak, if we make a proper use of those means which the God of nature hath placed in our power. Three millions of people, armed in the holy cause of liberty, and in such a country as that which we possess, are invincible by any force which our enemy can send against us. Besides, sir, we shall not fight our battles alone. There is a just God who presides over the destinies of nations, and who will raise up friends to fight our battles for us. The battle, sir, is not to the strong alone; it is to the vigilant, the active, the brave. Besides, sir, we have no election. If we were base enough to desire it, it is now too late to retire from the contest. There is no retreat, but in submission and slavery! Our chains are forged, their clanking may be heard on the plains of Boston! The war is inevitable—and let it come!! I repeat it, sir, let it come!!!

It is in vain, sir, to extenuate the matter. Gentleman may cry, peace, peace—but there is no peace. The war is actually begun. The next gale that sweeps from the North will bring to our ears the clash of resounding arms. Our brethren are already in the field! Why stand we here idle? What is it that gentlemen wish? What would they have? Is life so dear, or peace so sweet, as to be purchased at the price of chains and slavery? Forbid it, Almighty God! I know not what course others may take; but as for me, give me liberty or give me death!

EDITORIAL FROM THE AMERICAN BAR ASSOCIATION JOURNAL CONCERNING THE LIBERAL BIAS AGAINST PROPERTY

Mr. THURMOND. Mr. President, in the February 1971 issue of the American Bar Association Journal there appeared a very relevant article entitled "Men and Things: The Liberal Bias Against Property."

Many behavorial scientists, liberals and reformers, do not probe property relationships in our culture, and thus are led astray by several false assumptions. In writing this article, Mr. Thomas Shaffer makes the observation that most revolutionary elements and liberals have the implied wish that it is possible to separate the ownership of property from the personal rights of man. The impossibility of this separation is based on three behavorial theories on man's ownership of things. These theories point out the deep concern, involvement, and effect that property has upon man's personality and character.

Last, the author asserted that every person should have enough property for guaranteeing and safeguarding personality; for dignified labor; for sound relationships with those he loves; and for self-expression. Most people set almost as much value on the nonvocal elements of their personalities as they do by self-expression. Every reformer ought to try for an appreciation of what is most important to the people he proposes to reform before he begins his reform. Thus, anyone who proposes to be a revolutionary should realize that the right of a man to own and enjoy his property is as great as his right to gather with his neighbors and criticize the government. These interesting comments deserve the consideration of the Congress.

Mr. President, I ask unanimous con-

sent that the article entitled "Men and Things: The Liberal Bias Against Property," which appeared in the February 1971 issue of the American Bar Association Journal be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

MEN AND THINGS: THE LIBERAL BIAS AGAINST PROPERTY

(By Thomas L. Shaffer)

Ownership of property is as prevalent in human society as taxes and government, and almost as prevalent as sex. Most men are more concerned with their possessions and with what it takes to acquire and protect them than they are with righteous indignation.

When a property teacher sets out to learn about the human facts in his subject—if, for instance, he wants to learn about the behavioral aspects of the law of the dead (wills, trusts, future interests and death taxation)—he will be discouraged by the fact that psychological literature has a great deal to say about sex, and even quite a bit about death, but almost nothing about property.

There are a couple of metaphysical essays by Jean-Paul Sartre,[1] and, from the founders of psychoanalysis, the theory that our concern about property begins at the potty chair.[2] But for the most part the men who have been most interested in studying the human spirit have not been concerned about our relationships with things. There may be a reason for that. And the reason may be useful for our profession, which necessarily deals with property and which should begin to learn what it cannot learn from behavioral science.

MOST REVOLUTIONARIES ARE NAIVE ABOUT PROPERTY

Here is a guess: The most revolutionary elements in our society are naive about property. They say, as William Stringfellow, a distinguished lawyer, said in his book *Dissenter in a Great Society:*

The venerable ideological conflict in our society between those who regard property, and the ownership of property, as the moral basis for society and those persuaded that human rights must have precedence in the ordering of society and the making of public policy once more dominates the American scene.[3]

Some of our revolutionaries (not including Mr. Stringfellow) say that banks must burn and some that houses should be owned communally. The aspiration is that we share our burdens and our benefits and forget about ownership. In some hard-to-get-at way this sentiment is implicit in the communal spirit—the let's-get-together ethic—of the coming generation. And something like this same spirit is implicit in the ideas and sympathies of those of us who often cheer at the irreverence of the coming generation. This is a mildly utopian idea; it is prevalent in the literature of the new left and the not-so-new, not-so-left, and it suggests a liberal bias against property. (If the word "liberal" seems bothersome, substitute "reformer's" or even "revolutionary's". "Liberal" is used here, frankly, to provoke annoyance.) There is at least the implied aspiration that it is possible to separate the ownership of property from the rights of men. Whatever it is, it seems to be erroneous, and the error could make a difference. More to the present point is that it seems to be part of the current liberalism in behavioral science.[4]

My favorite image on men and things is Humphrey Bogart on the *African Queen*, chugging down that fetid jungle river with Katherine Hepburn. The boat's ancient steam engine jammed and rattled and scattered hot steam, and Bogart jumped up, ran to the boiler and kicked it. And the boiler worked again.

Hepburn asked what was the matter with the boiler, and Bogart said it was jammed. Hepburn asked him why, and Bogart said, "I left a screwdriver in it one day when I was working on it, and the screw driver jams a valve." Hepburn asked why he didn't take it apart and take the screwdriver out. And Bogart said, "I could do that, Miss, but I like to kick her. She's all I got."

You cannot talk about the captain of the *African Queen* as a person unless you are willing to talk about the *African Queen* as an extension of its captain—as part of his personality. That seems obvious, but it is an instinctive judgment on which the behavioral scientists have presented no data. They have defaulted on their clear duty to satisfy the curiosity of lawyers. If they had not failed us—or if they someday propose to redeem their failure—what might be the behavioral theories on man's ownership of things? Here are three ideas.[5]

"I AM WHAT I HAVE"

First, property is something I am. It is a part of what is me. Sartre makes a theoretical case for that proposition:

"The quality of being possessed does not indicate a purely external denomination . . .; on the contrary, this quality affects its very depths. . . . This is the significance of primitive funeral ceremonies where the dead are buried with the objects which belong to them. . . . The corpse, the cup from which the dead man drank, the knife he used make a single dead person. The desire to have is at bottom reducible to the desire to be related to a certain object in a certain relation of being."

"I draw the collection of my surroundings into being with myself. If they are taken from me, they die as my arm would die if it were severed from me."

The totality of my possessions reflects the totality of my being. I *am* what I have.[6]

Property personality is a common thing in the law of succession—in this culture and others. Consider the astounding respect that is shown for the wishes of a dead man on the disposition of his property. In Tahiti,[7] and in Iowa and Kansas for that matter, one reason a man makes a will is in order to prevent fights—because his survivors will not resist what he wants done as much as they will resist someone else, someone who lacks the dead man's identification with the property. Throughout the law of succession, in all cultures, there lingers the idea that the property is the personality of the dead man. Property is his immortality.[8]

Try that thought on yourself. Pretend you are going on a long trip, a trip from which you may never return. What will you take with you? What is the most valuable thing you own? And what is the most significant thing to you personally? Can you tell clearly where you end and the things on your take-along list begin?[9] Those who study the dynamics of "total institutions"—prisons and asylums—report one of the principal ways to make inmates docile is to take away everything they own.[10] The result is not only a naked man, but also a naked personality. Justice Holmes said: "A thing which you have enjoyed and used as your own for a long time, whether property or an opinion, takes root in your being and cannot be torn away without your resenting the act and trying to defend yourself, however you came by it."[11]

PROPERTY IS SOMETHING I DO

Property is more than something I am. It is also *something I do*. One of the first signs of a beginning of ownership among primitive, communistic societies is respect for primary rights in things that are the fruit of labor. Among the Yamana of South America, for instance, if I catch a whale, the blubber belongs to everyone in the village. But I get first pick and, to some extent, get to choose who gets second and third pick.[12] In the Semang society on the Malay Peninsula, there is no ownership of land or buildings, but every warrior owns his own poison tree.[13] The Eskimos of Greenland and the Arctic Siberians recognize almost no exclusive ownership, but if you want to learn a spell or a hunting song you have to pay the man who knows it.[14]

In each of these instances—and in the case of American businessmen—property is what I do. And this is true beyond consideration of wealth. I asked a veteran life insurance underwriter a couple of years ago about his business clients. He said they were always greatly concerned about what would happen to their businesses when they died. I asked him if they knew how much their businesses were worth, and he said they usually did not.

PROPERTY IS SOMETHING I USE

Property is more than what I am and more than what I do. It is also *something I use*, and there are three radically different aspects of property as *use*.

Property may be a conduit to other people; it may be a cornerstone of human relationships. Freud noticed this in his *Psychopathology of Everyday Life*.[15] I am enjoying myself at your house but have to leave, and when I leave I forget my coat. I have to go to the office on a Sunday afternoon and resent it, and find when I get there that I left my keys at home. My things—coat and keys—are where I wish I were. A patient of Freud's was having trouble with his wife; she gave him a book and he misplaced it. Six months later their relationship improved, and the patient found the book in some obvious place in his desk.

It has usually been thought that primogeniture, the legal system under which property is inherited by an eldest son to the exclusion of everyone else, is medieval and undemocratic. But societies that have observed primogeniture—including fairly modern societies—are often prosperous. This comes about because the central family—father or eldest son—takes care of everyone else. Property is used to keep the family together at least as much as the family is used to keep the property together.[16]

The line between rights in things and rights in persons is functionally obscure. Most legal systems have always recognized rights in persons as a species of property. The levirate—a custom under which a widow is given to her husband's brother—seems a cruel instance of that, but it is not really so different from child ownership, or even wife ownership, in our own society.[17] Engels saw this connection; he wrote that the institution of marriage had to decline with decline in the institution of property. The two go together—a dogma that caused great theoretical turmoil in the Soviet Union until Stalin rejected it.[18]

Property is something I *use*, in a second sense, as a significant personal expression not otherwise available to me. There is a custom among one tribe of Indians in Arizona, for example, that everything a dead man owns is destroyed when he dies. Survivors are afraid of the dead; they want solid earth between them and all extensions of the dead man—including his property personality.[19] We all know carpenters who would not be who they are without wood and tools. The only ownership recognized in many primitive societies is the ownership of things to work with. A quaint example of that is the Hopi garden. A husband may own the garden, and he may do whatever he wishes with his produce as long as he is in the garden. But if he brings the produce into the house—his wife's house, as the Hopi see it—the produce doesn't belong to him anymore and only his wife is allowed to give it away.[20]

The idea of ownership begins when self-

Footnotes at end of article.

expression with property requires exclusive rights in it. It may be that the need for exclusive control has important psychological significance. The anthropologist Rene Millon hit upon the very rude beginnings of land ownership among the Sierra Populaca of Mexico. Those people were just beginning to permit a man to demand exclusive rights in his grove of coffee trees—the land as well as the trees. They had recognized for a long time that a man could own the trees, but only recently did they expand this idea to the land itself. And the apparent explanation of the extension is that they had discovered that they could grow more and better coffee that way. Millon does not guess at the effects of this transition on the social and physic personality of the coffee grower.[21]

There is a third sense in which property is something I use, and that is as a means of assuming and protecting power. The coffee trees of the Sierra Populaca suggest that development. There are many instances in our own history. An example is the use of land grants in the United States and in Spanish America, not only as a means of economic development, but as a means of solidifying power. For another example, the English feudal system, from which our law of property grew, was above all a system of government.[22]

TRANSMISSIONS OF STATUS AND PROPERTY ARE INSEPARABLE

The transmission of status—which is a symbol of power—and the transmission of property are functionally inseparable. Titles and positions of honor illustrate that throughout Western history; and there is more transmission of status in our own culture than we may be ready to admit. You can reflect on that fact as you run down the roster of names in the United States Senate. In societies entirely alien to our own, the transmission of corporate membership—in clan groups, in castes, in the primitive equivalent of the country club—is property used to assume and protect power.

I think Mr. Stringfellow and reformers of his persuasion, as well as revolutionaries who will doubtlessly be influenced by him, make a mistake when they equate the assumption and protection of power with property ownership. And the mistake may lead them far beyond anything they had in mind. There is a kind of revolution that is callow and therefore unwittingly inhumane. Successful revolutions—and the most successful of all revolutions, the American Revolution, was designed and implemented by lawyers—are built on a healthy respect for the way people are.

Callow revolutions tend to unexpected catastrophe. I agree with Justice Holmes that "the notion that with socialized property we should have women free and a piano for everybody seems to me an empty humbug".[23] One thing every reformer ought to try for—on pain of failure—is an appreciation for what is most important to the people he proposes to reform.

In terms of national policy, an appreciation for the way people are and the way people own will tend to support, for example, the way our federal tax structure has grown up, so that businessmen are taxed just this side of destroying their desire to own more than they have. And death taxes are kept just low enough so that a man does not lose all hope of aggregating status and power and passing it along to his children.

A primary goal of the American welfare state—supported, as it is, by taxing policies that take realistic account of the way people are—is that every household should have a house. Every person should have enough property to guarantee and safeguard personality; for dignified labor; for sound relationships with those he loves; and for self-expression.

Behavioral scientists don't probe property relationships in *our* culture because they are members, by and large, of Mr. Stringfellow's species of reformer. The trite label for that species is middle-class liberal. Middle-class liberals are ambivalent about property. They are comfortable with their things. They couldn't get along without things. But social passions and consider-the-lilies-of-the-field idealism leave one somehow ashamed of ownership—and, especially, of the love of ownership.

HYPOCRISY OF PROPERTY IS A SORE SPOT

The enlightened American liberal has come to terms with his sex impulses and even has learned to live with anxiety about death—both more advertently, and more efficiently, than he has dealt with his ambivalance about the comforts of property. The rebellious kids have some pretty useless ideas about *distribution* of property, but they hit a sore spot when they talk to their elders about the *hypocrisy* of property.

Middle-class liberals aside, most men are more concerned with their things and with what it takes to acquire and protect their things than they are with righteous indignation. The comparison is important because self-expression—the "firstness of the First" (Amendment)—appears to be a sort of primary, non-negotiable value among the vocal leaders of the coming generation, and even more so among the admirers and supporters they have in the command generation. But most people set almost as much store by the nonvocal dimensions of their personalities.

All of us are more involved in our things than many of us care to admit. Anyone who proposes to be a revolutionary should realize that, as Judge Prettyman said, "The right of a man . . . to warm his slippered feet before his own open fireplace is as great as his right to gather with his neighbors in the corner pub and cuss the government."[24]

FOOTNOTES

[1] SARTRE, EXISTENTIAL PSYCHOANALYSIS (1953).

[2] FERENCZI, SEX IN PSYCHO-ANALYSIS (1958).

[3] STRINGFELLOW, DISSENTER IN A GREAT SOCIETY (1964); see Slater, *Cultures in Collision*, PSYCHOLOGY TODAY 31 (July 1970).

[4] See Moynihan, *Eliteland*, PSYCHOLOGY TODAY 35 (September, 1970).

[5] See also SHAFFER, DEATH, PROPERTY, AND LAWYERS (1971); Shaffer, *The Psychology of Testation*, 108 TRUSTS & ESTATES 11 (1969); Shaffer, *Will Interviews, Young Family Clients, and the Psychology of Testation*, 44 NOTRE DAME LAW. 345 (1969); and Shaffer, *The Psychological Autopsy in Judicial Opinions under Section 2035*, 3 LOYOLA UNIVERSITY OF LOS ANGELES L. REV. 1 (1970).

[6] SARTRE, *supra* note 1, at 122–123.

[7] Cairns, *The Explanatory Process in the Field of Inheritance*, 20 IOWA L. REV. 266, 281 (1935).

[8] See generally GOODY, DEATH, PROPERTY, AND THE ANCESTORS (1962).

[9] Thanks to Dr. Oron South, of the Midwest Group for Human Resources, for this suggestion.

[10] GOFFMAN, ASYLUMS (1961); SYKES, THE SOCIETY OF CAPTIVES (1958).

[11] Holmes, *The Path of the Law*, 10 HAR. L. REV. 457, 477 (1897).

[12] Lowie, *Incorporeal Property in Primitive Society*, 37 YALE L. J. 551, 552–553 (1928).

[13] *Ibid.*

[14] *Id.* at 553–555; The return of succession and even testation to Soviet law is an interesting parallel. See Griffin, *The About Turn: Soviet Law of Inheritance*, 10 AM. J. COMP. L. 431 (1961).

[15] FREUD, THE PSYCHOPATHOLOGY OF EVERYDAY LIFE (Mentor ed., 1951); ch. II, JONES, PAPERS ON PSYCHO-ANALYSIS (Beacon ed. 1961).

[16] Cairns, *supra* note 7 at 268–281: Radcliffe-Brown, *Patrilineal and Matrilineal Succession*. 20 IOWA L. REV. 286, 297–303 (1935); Griffin *supra* note 14.

[17] *Ibid.* (Radcliffe-Brown).

[18] Atkinson, *Succession Among Collaterals*, 20 IOWA L. REV. 185, 186, note 3 (1935).

[19] Blauner, *Death and Social Structure*, 29 PSYCHIATRY 378 (1966).

[20] Beaglehole, *Ownership and Inheritance in an American Indian Tribe*, 20 IOWA L. REV. 304 (1935).

[21] Millon, *Trade, Tree Cultivation, and the Development of Private Property in Land*, 57 AMERICAN ANTHROPOLOGIST 698 (1955).

[22] See generally Cairns, *supra* note 7; JOHN, LAND TENURE IN EARLY ENGLAND (1960).

[23] HOLMES, COLLECTED LEGAL PAPERS 306 (1921).

[24] PRETTYMAN, TRIAL BY AGENCY 15 (1959).

RECENT TRENDS IN SUPREME COURT DECISIONS

Mr. THURMOND. Mr. President, recent decisions of the U.S. Supreme Court show that Chief Justice Warren Burger's leadership is slowly but surely turning the wheel of justice back into an orderly path. In May of 1968 President Nixon set out his philosophy on the Supreme Court appointments. The President said:

The President could not and should not control the decisions of the Supreme Court. On the other hand, the President does have some effect on the future of the Court because of his prerogative to appoint its members. In addition to getting an extremely qualified man, there are two important things I would consider in selecting a replacement to the Court. First, since I believe in a strict interpretation of the Supreme Court's role, I would appoint a man of similar philosophical persuasion. Second, recent court decisions have tended to weaken the peace forces as against the criminal forces in this country. I would, therefore, want to select a man who is thoroughly experienced and versed in the criminal laws and its problems.

The addition of only two Justices nominated by President Nixon has given hope that the Court will restore the protection of the law to our citizens. Under the leadership of Justice Burger the Court seems to be taking a deliberate swing toward strict constructionism.

A recent instance was the so-called Harris case, in which the Supreme Court began to undercut the impact of the notorious Miranda decision. In the Miranda case, the Warren Court had ruled that confessions obtained from suspects without informing them that they could have a lawyer present were inadmissible as evidence. As a result of this technicality, uncounted numbers of confessed criminals were set free to prey upon society.

Until recently, the High Court has adhered to a strict prohibition against allowing Miranda-type confessions to be used against defendants in criminal trials, but the Harris case closed the door on the heretofore unchecked use of perjury by defendants in criminal trials. While this decision was called monstrous by a member of the liberal dissent, the Chief Justice duly noted that to rule otherwise would be to allow an accused to confess fully to a murder and lead the police to the body, yet deny it all on the witness stand under the guise of constitutional rights.

The new decision in the Harris case has not yet faced the issue of the Mir-

anda doctrine squarely. Yet Chief Justice Burger delivered the opinion that statements taken without a lawyer present could be used to cast doubt upon the credibility of an accused person's testimony in a cross-examination. This doctrine goes back to one of the basic principles of cross-examination which had formerly been fully established in Anglo-American jurisprudence.

The difficulties faced by the Chief Justice are evident in the vicious way in which this slight change for the better was attacked by liberals. Both the dissent by Justice Brennan and attacks by leftwing newspapers seem designed to exaggerate the issue of real reform of the Miranda doctrine. For several years, the Supreme Court has refused to accept any more cases which might bring a challenge to the Miranda rule. Yet last week, four Justices, the required number, voted to take up such a challenge. Thus we can expect another ruling on the Miranda doctrine later this year or early next year.

Another indication of the Court's straight-thinking came recently in a decision holding that home visits with recipients of aid to families with dependent children were not unreasonable. Speaking for the majority of the Court, Justice Blackmun compared the public to a person dispensing a private charity, saying that they both have an interest in and expect to know how charitable funds are utilized and put to work. He concludes that as long as the means of securing that interest are gentle, of limited extent and of practical consideration, then they are not unreasonable in the fourth amendment's sense or any other sense.

Justice Douglas was left standing alone in left field recently when the Court handed down the 8-to-1 decision, which held that to qualify as a conscientious objector, one must oppose participating in all wars and not merely oppose participating in a particular war. Still in another moderating decision, the Court slapped the hands of Federal district courts for unwarranted interference with State courts

Nevertheless, the margin for reform is often narrow. If the four Justices who voted to take up the Miranda rule again vote for reform, one more will be needed to carry. President Nixon has not had the opportunity to fill another vacancy on the Court.

Mr. President, this precarious situation was illustrated most recently when the Supreme Court, in a 4-to-4 tie, voted to let stand a lower court decision banning a pornographic film in the State of Maryland. Thus the Court struck a blow for decency. But it was most significant that one of the Justices absented himself from participating in the case. This individual was Justice Douglas.

The reason Justice Douglas did not participate was a conflict of interest. It is a matter of notoriety that the Justice has received financial compensation from some of the Nation's leading pornographers, including the very distributor of the pornographic film in question. Plainly, he could not take part in an action against a man with whom he had been financially involved.

Therefore, we are faced with a strange contradiction. If Justice Douglas had participated, we might assume that the pornography conviction would have been overturned. Yet the rights of the people of Maryland to legislate against pornography have been upheld only because one of the Justices himself was implicated in the business activities of the pornographers.

Mr. President, these are just a few examples of the type of constitutional thinking which has earmarked the Burger Court in recent decisions. Continuity and public support is being enforced with each decision. The Court is not dramatically vacillating from decision to decision, but is putting a gentle thumb on the scales of justice. This has created a pause in the Court's race toward the chaos created by the loose ends, confusion and bitterness that the Warren Court left in the wake of each decision. Out of this pause may come a broad scale reexamination of all the problems with which the Supreme Court is concerned.

The Court's recent decisions, even more than showing a swing to the right, indicate that President Nixon is building a court made of the "caretakers of the Constitution and servants of the people, not superlegislators with a free hand to impose their social and political viewpoints upon the American people."

Mr. President, I ask unanimous consent that an article by John P. MacKenzie entitled "Precedent-Upsetting Rulings Give Court a Nixon Stamp," which appeared in the March 1 issue of the Washington Post, and an article entitled "Supreme Court Gradually Moving to the Right" by Lyle Denniston which appeared in the February 28 issue of the Evening Star, be printed in the RECORD.

There being no objection, the articles were ordered to be printed in the RECORD, as follows:

[From the Washington Post, Mar. 1, 1971]

PRECEDENT-UPSETTING RULINGS GIVE COURT A NIXON STAMP

(By John P. MacKenzie)

If ever it seemed that President Nixon had made his mark on the Supreme Court, it was last week.

On two successive days the court handed down decisions cutting deeply into precedents of recent years. No holding of the Warren Court was directly reversed, but foundations were shaken.

Rumblings from the week's output of 20 decisions indicated strongly that further shakeups in the law are on the way, spurred by the votes of the Nixon appointees, Chief Justice Warren E. Burger and Associate Justice Harry A. Blackmun.

On Tuesday, the court proclaimed a rebirth of "Our Federalism" and told federal judges to keep their hands off criminal cases in the state courts except in the most provocative circumstances.

Then on Wednesday, Burger casually released his first majority opinion of his second term, a 5-to-4 decision that opened a gaping hole in the confession rules laid down in the much-disputed 1966 case of *Miranda* v. *Arizona*.

After 18 months of inconclusive maneuvering among the court's factions, the message suddenly was this: The conservatives are ready to deliver some major results. Furthermore, important movements in the conservative direction can be made without going to the trouble of directly repudiating past rulings.

The "Our Federalism" and criminal cases were not the only signals of change. Blackmun delivered an opinion which took pains to point that the court was not—that is, not now—reexamining a 5-to-3 decision of June, 1969, expanding servicemen's rights to civilian trials.

And in a series of decisions involving the power of states to inquire into the character and beliefs of applicants for the bar, the majority stressed repeatedly that it was hostile to broadside attacks on the bar examiners' rules and preferred to review the complaints of individual lawyers.

Not long ago the high court was very receptive to attacks against a law "on its face" and was quick to strike down many of them because of their potential for intimidating people out of exercising their rights of free speech and association.

Some of these signals of change were transmitted by language telling the bar and the public that the court was merely refusing to go one step further than required by a prior decision. Such are the dynamics of Supreme Court decisions that the refusal to expand on prior rulings can start the law traveling in the opposite direction.

Burger did not come to the court with a reputation as a scholar in the field of federalism, which to the judiciary means the proper relationship between federal and state courts. The U.S. Court of Appeals in Washington, where Burger served for 13 years, handles masses of cases involving the federal government but is unique among the federal appellate courts in the small number of federal-state problems that reach it.

However, Burger has made clear, in wide-ranging, off-the-bench speeches, how deeply he desires a reduction in federal court caseloads.

By contrast, Burger is a veteran of combat over the use of incriminating statements obtained illegally from suspects in police custody. He labored in the court of appeals to limit the impact of the Supreme Court's 1957 decision, Mallory v. United States, a forerunner of Miranda.

Over a dissenter's protest that the result was "monstrous," Burger held that illegally obtained statements, which could not be used the prosecutor's basic case, may be used to discredit the testimony of a defendant who takes the stand.

In the course of a brief opinion, Burger cast doubt on the court's policy, dating back 50 years and more, of excluding evidence that authorities have obtained illegally. With none of the majority justices indicating the contrary, Burger said he was only "assuming" that the policy had validity before going on to say that it would not be employed in the case at hand.

To many observers it is too early to say that the Supreme Court has been "turned around." Administration officials, for example, won't feel secure until there are nine Burgers and Blackmuns.

There still is much momentum in the civil rights area—at least until the court rules on school busing—that hasn't been completely halted. Among the five-member majority of Wednesday there are three justices, John M. Harlan, Potter Stewart and Byron R. White, who sometimes take turns crossing over to vote for the defendant's claimed rights. But there is much uncertainty, drift, and change.

[From the Washington Evening Star, Feb. 28, 1971]

SUPREME COURT GRADUALLY MOVING TO THE RIGHT

(By Lyle Denniston)

Perceptibly and, so far, rather quietly, the "Burger court" is edging away from the "Warren court."

It is the sort of gradualism that Justice Hugo L. Black, who has been on the Supreme Court under five chief justices, calls just another historic wave—sometimes rising, sometimes falling.

And it is the kind of modest change that has led President Nixon and Atty. Gen. John N. Mitchell to limit their public praise to the work of the two justices they chose, making no claims that they have won over the court.

Chief Justice Warren E. Burger and Justice Harry A. Blackmum, the Nixon administration appointees, are making a difference. But it is as true now as it has been for years that there are three other justices who make more difference.

The men who are still pivotal are Black and Justice Potter Stewart most of the time, and Justice John M. Harlan some of the time.

It is they who move between the fairly solid blocs of the court, swinging the result with them.

So far this term, they have been taking the court with them in a fairly steady, but unspectacular, move away form the liberal trend that was nearly constant when Earl Warren was chief justice.

LIBERALS DISSENT

One clear indication that this is the way the court is moving is that, more often than not, the results in key cases have led Justices William J. Brennan Jr., William O. Douglas and Thurgood Marshall to dissent. They are the core of the liberal bloc, the committed members of the old "Warren court" majority that often had as many as six votes, and sometimes seven.

Black was routinely a member of that bloc in the past, and he still is likely to side with it frequently. When Brennan, Douglas and Marshall have been able to attract a fourth vote to their side this term, it usually has been Black's.

The four were together in dissent in 5–4 rulings on the power of prosecutors to make some use in criminal trials of unconstitutionally obtained confessions, the duty of new lawyers to take a pledge of loyalty, the right of suspects to be free from prosecution if they agree to give a grand jury evidence, and the power of prosecutors to use some "hearsay" testimony during a trial.

Except for the decision approving lawyers' loyalty oaths, each of those results by the five-man majority marked a change—even if occasionally subtle—from results that the Warren court majority had announced.

TROUBLE HOLDING JUSTICE BLACK

But the Brennan-Douglas-Marshall grouping has had some trouble holding Black on a handful of important issues. They lost him, for example, on mandatory home visits by welfare inspectors, Congress' powers to overturn the voting age laws of the states, and removal of any real chance to wipe out a guilty plea once given.

The actions by Black, the oldest justice, on the voting age issue gave a good indication of how crucial his vote can be. Black voted with four justices to hold that Congress could reduce the voting age for federal elections, but then switched and voted with four different men to rule that Congress could not touch age laws for state and local elections.

Stewart performed a similar feat just the other day, when the court was ruling on loyalty screening of lawyers seeking licenses to practice. He helped form a five-man majority in favor of a carefully limited loyalty oath, but turned around to join the liberal bloc in striking down unlimited probing into a lawyers' associations.

Stewart is most often ready to vote with the conservative side. There is an exception, however: almost any case on the First Amendment as it applies to the rights of the press and the rights of sellers and exhibitors of literature or films which some prosecutor deems obscene. Stewart would provide more constitutional protection than any member of the court except Black and Douglas, who want total protection.

THE "BURGER BLOC"

At this halfway point in the current court term, Harlan's occasionally pivotal role is more potential than actual. His record in the past suggests that he may be drawn over to the side of the old "Warren bloc," and at least a few times this term he has seemed strongly tempted. At the least, he is not firm as an ally of the new conservative bloc Burger is drawing together, although he has been with that group on most crucial issues this term.

The "Burger bloc" includes, as its most loyal adherent, Blackmun. The Associated Press log on this term's work so far shows that Blackmun has voted with Burger 45 out of 47 times. The two exceptions were not significant.

Almost as often, the bloc has been able to claim the vote of Justice Byron R. White. He abandoned Burger and Blackmun on the key decision about voting age and shared the views of Brennan, Douglas and Marshall that Congress could let 18-year-olds vote in all elections.

Burger and Blackmun have felt driven to strong dissent only once so far this term, on the power of federal courts to strike down state laws when state courts had been given no chance to rule first.

That fact, plus the over-all record which shows that only four major decisions—at most—produced 5–4 splits, indicates that the conservative sector on the bench is at least comfortable if not in full command.

MAJOR DECISIONS AHEAD

But, the court is not even half through with major controversy. Aside from the voting rights, loyalty oath and confessions rulings, its work so far is short of the rank of major landmarks.

It has more than 60 other cases approaching decision, and many of them seem sure to reach that rank. Between now and the planned adjournment date of June 7, the court will act on the practical steps that must be taken to desegregate schools, the power of juries in death penalty cases, the right of parochial schools to get public funds, the freedom of adults to see dirty movies or buy dirty books if they wish, the scope of federal eavesdropping authority, and the opportunity for youths to pick the kind of wars they would agree to fight as draftees.

Already well-splintered on what it has done up to now, the first term of a full court under Burger is likely to satisfy Black's public plea for dissent because it is supposedly a good thing. Before June, however, it may reach a point against which even he argued: when dissents are so strong that "the court sounds like a crackling bunch of chickens, and no one can hear anyone's voice."

RESPONSIBLE JOURNALISM

Mr. THURMOND. Mr. President, it is indeed unfortunate when professional journalists publish a column which maligns the good name and reputation of a dedicated public servant. Responsible journalism requires that accusations against individuals be checked out thoroughly for accuracy. To print charges without ascertaining the truth is unfair to the individuals who have been attacked, and reflects poorly on the competence of the columnists, when the accusations are subsequently refuted.

The Republican Party in the First Congressional District of South Carolina held a primary on February 20, and two well-known columnists, Rowland Evans and Robert Novak, attacked both the Republican and Democratic Party leadership for an alleged conspiracy to prevent blacks from participating in this primary. The column was a serious charge against a number of individuals of both parties, and Evans and Novak should not have published it unless certain of its accuracy.

Mr. President, these ridiculous charges have been answered very effectively by news articles and editorials which appeared in South Carolina newspapers.

Mr. President, I ask unanimous consent that an editorial entitled "Someone Has Sandbagged Columnists Evans, Novak," which appeared in the March 9 issue of the State, Columbia, S.C.; an article, published in the March 5 issue of the News and Courier, of Charleston, S.C.; another article by Jack Leland, published in the March 11 issue of the Charleston Evening Post, Charleston, S.C.; an article by Barbara Williams, published in the March 14 issue of the News and Courier, Charleston, S.C.; and the Evans-Novak column, entitled "Status Quo Suits South Carolina GOP," which appeared in the March 3 edition of the Washington Post, be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

[From the State (Columbia, S.C.) Mar. 8, 1971]

SOMEONE HAS SANDBAGGED COLUMNISTS EVANS, NOVAK

Two of our columnists, the team of Rowland Evans and Robert Novak, recently leveled charges of the most serious nature at the Republican candidate for Congress in the First District. With the same brush, they likewise tarred the entire GOP state executive committee and a number of First District Democrats.

Let this much be made clear at the outset: the charges, in our opinion and in the opinion of persons most familiar with the First District congressional race, are wholly fictitious. Messrs. Evans and Novak, it is quite plain, have been sandbagged by someone with a smarting political grudge.

In the case of Dr. Edwards, the result is especially regrettable, because he was singled out by name and unfairly portrayed as a "far right conservative dentist" with strong backing from the John Birch Society. By virtue of this kookiness, the columnists stressed, he and other "right wing Republicans" conspired with "conservative Democrats" in the First District to frighten black voters away from the February 20 Republican primary. The means selected was a law, hurriedly passed, requiring voters in the GOP primary to have their registration certificates stamped—a partisan identification that blacks in a strongly Democratic district presumably would avoid.

This rendition contains just enough truth to sound convincing. Dr. Edwards is a dentist and he is conservative and a law was passed requiring registration cards to be stamped. There the truth ends and the fairy tale begins. Dr. Edwards also happens to be

a decent and intelligent man whose attitude on matters of race and ideology Messrs. Evans and Novak only think they understand. As for the stamping law, it was passed for the obvious reason: South Carolina does not require registration by party affiliation, and the law was necessary to protect against double balloting.

It is the implicit charge of racism that is most galling to those persons familiar with Dr. Edwards' record. At a time when most Charleston dentists received Negro patients after hours, Dr. Edwards was a conspicuous exception; his patients, black and white, got equal treatment. The first two Negroes admitted to the South Carolina Dental Association were admitted under his sponsorship. These examples are characteristic.

In mitigation, it ought to be said that Rowland Evans and Robert Novak are honorable men also and conscientious journalists. Their offense lies in having seemingly relied upon misinformation supplied by a person or persons with more of a grudge than a grasp of the facts.

One thing more: Dr. Edwards, campaigning in a Democratic district against a Democrat with a famous and vote-getting given name, may indeed "lose overwhelmingly," as Messrs. Evans and Novak predict will be the case on April 27.

But this is something for the voters to decide. If such be their decision, let us hope that it is made on the basis of something more substantial than bogeymen conjured up out of the whole cloth.

[From the Charleston (S.C.) News and Courier, Mar. 5, 1971]

SOLONS CRITICAL OF ARTICLE: CHARGES ELECTION CONSPIRACY

COLUMBIA.—An article which charged that Democrats and Republicans conspired to discourage blacks from voting in a Republican congressional primary drew angry retorts Thursday in both houses of the South Carolina Legislature.

Washington-based columnists Rowland Evans and Robert Novak said in a syndicated column "the Republican far right and dominant conservative Democrats" pushed a bill through the legislature which required that the registration certificates of persons voting in the 1st District primary be stamped.

The law, approved by the legislature three days before the GOP primary on Feb. 20, was passed on the claim that it was needed to prevent persons voting in the Republican primary from voting again in the Democratic primary Feb. 23.

However, the Evans-Novak article, printed in the Columbia State and the Charlotte Observer, said it was aimed at discouraging blacks from taking part in the Republican nominating process. The columnists said black ministers in Charleston had warned their congregations that those who voted in the Republican primary could be identified because of their stamped registration certificates and the dominant Democrats might retaliate politically.

Sen. Robert Scarborough, D-Charleston, said the "two northern reporters" were guilty of a "complete falsehood" and that publication of the article "is carrying freedom of the press too far."

In the House, Rep. Robert L. McFadden, D-York, and Rep. Arnold Goodstein, D-Charleston, also called the article "totally false."

Also denouncing the article as "an absolute fabrication" was C. Kenneth Powell of Columbia, chairman of the State Republican Party.

Sen. Scarborough said the article "condemned, criticized and attempted to try this honorable General Assembly" for passing the stamping bill.

He questioned whether "our press has the right to publish complete falsehoods."

Scarborough said some time ago when he sponsored a bill to prohibit the advertising of X-rated movies, "I was besieged by newspapers yelling about freedom of the press.

"Yet they make it look like you and I conspired to do something crooked," he told the Senate.

Rep. Goodstein said "I don't think we did anything that is not done in northeastern states to keep people from voting twice."

Rep. McFadden denied that "any of us in the House—Democrats or Republicans—acted to intimidate any voters."

[From the Charleston (S.C.) Evening Post, Mar. 11, 1971]

COLUMNISTS IGNORED TREND OF BLACK VOTE IN SOUTH CAROLINA

(By Jack Leland)

That controversial column by Roland Evans and Robert Novak would have carried more punch if the authors had bothered to study the history of Negro voting in South Carolina.

What the columnists said was that conservatives in both parties conspired to keep Negroes from voting in the Republican Party Primary Feb. 20 by supporting a law that affixed "date stamps" to all voter registration cards.

It isn't at all clear where the Evans-Novak team got its information concerning conservative Republicans teaming up with conservative Democrats to get the plan through the legislature and approved in time for the election. They haven't said and no one's talking except a few Democrats who initiated the bill in the General Assembly.

Sen. Robert B. Scarborough, Charleston County's "Mr. Democrat", complained—and not surprisingly.

For Sen. Scarborough—and all the other Democrats—owe their present elective positions to the black voters. If those voters get the idea that white Democrat friends are teaming with white Republican foes to disenfranchise blacks—well, then it'll be Katie bar the door. At least for the present officeholders.

But a real gap in the Evans-Novak thinking was their assumption that Arthur Ravenel could have gotten enough black votes to win the Republican primary. Had the writers or their informants bothered to simply look at the black voting record in South Carolina since the Republicans began putting up candidates they would have seen right away that no Republican candidate has ever gotten more than a fistful of Negro votes.

The GOP is the partly of Lincoln and all that, but, more recently, the Democratic Party is the party of FDR, Hubert Humphrey, Jack Kennedy, Robert Kennedy, Thurgood Marshall, Martin Luther King, et al. And the memory of man—and political parties—is notoriously short.

The trend of the Negro vote became clear to this writer in 1952 when he covered the state, county by county, for The News and Courier prior to the Eisenhower-Stevenson election. He sent in a story from Beaufort that said the Negroes would vote almost solidly Democrat. News and Courier editors almost split their gaskets. Their informers in Charleston were saying the Negroes would stick to the GOP and shun the party of Wade Hampton, Pitchfork Ben Tillman, Cotton Ed Smith, Strom Thurmond and all the other "racists."

But to the reporter in the field, the trend was clear. That's the way it turned out. And that's the way it's been ever since. And—by way of prophecy—that's the way it's going to be for some time.

What it boils down to is that blacks wouldn't vote Republican in South Carolina if Abe Lincoln were resurrected and ran again on the GOP ticket. Anyone who bothers to take the general elections, every two years, and compare the returns from nearly all-white wards with those of the nearly all-black wards is bound to realize that the Democrats have had the Negro vote in the bag.

When an almost all-black ward of 1,300 or so registered voters gives 1,267 to the Democrats and 31 to the GOP, then even an idiot should be able to analyze who's voting for whom.

Mr. Ravenel's moderate appeal to the Negroes to come on over (not back, because the present Negro voters never were Republicans) to the GOP is, philosophically at least, a heartening move. But—from the standpoint of practicality—it is just baying at the moon.

Almost all of the Republicans—even the most "conservative" ones—with whom I've spoken are saddened at the thought of further polarization of the races with the blacks in the Democratic camp and the whites in the GOP area. But facts are facts and that is the way it is.

The sociologically interesting thing is that it has been the Negro who has insisted on this polarization, not the white. If the trend continues, the Democrats will find their party controlled by a black bloc and even may find the Negroes numerically superior to the whites on a statewide basis.

When—and if—that happens, then once again—as in the post-Civil War days—South Carolina will have a black party and a white party. But this time it will be reversed with white Republicans and black Democrats gunning for each other's political skins.

And when, and if, that happens, it will not have been because of any positive action on the part of the Republicans. It will have happened because, from 1960 on, the Democrats running at local level, began making a big play—by patronage and vote-buying—for the Negro vote.

During the last two general elections, the Negro vote has been the margin by which white Democrats were elected. It was the margin by which Gov. John C. West was elected.

The Negro leaders are not stupid. They know their strength and they now can talk from strength.

The Democratic Party in this state must now face up to the facts of political life. One of those is that, if you owe your political power to a bloc vote, then you must be prepared to acquiesce to the demands of the leaders of that bloc.

It's the old story of "whose bread I eat his song I sing."

It's time someone started singing.

[From the Charleston (S.C.) News and Courier, Mar. 14, 1971]

"FEEDING THE COLUMNISTS" IS THE GAME

(By Barbara S. Williams)

There's an interesting game called "feeding the columnists" that some politicans play, particularly on the national level.

Those who write what often amounts to political gossip columns often grow to rely on that diet.

Basically, there's nothing wrong with "the tip." The public often is the beneficiary of information obtained as the result of an anonymous hint, particularly in the political arena.

Political reporters find those tips invaluable in keeping tabs on what should be the public's business, but often is conducted like a closed shop.

What no columnist or reporter should ever forget, however, is that those feeding him those bits of information most often have their own personal motivations.

To rely on that source without making some attempt to check the facts can prove disastrous from a credibility standpoint.

There already has been much discussion about a nationally-syndicated column from Washington written by the team of Roland Evans and Robert Novak.

It dealt with South Carolina's recent congressional primary and the controversial "date stamp."

Basically, the columnists charged that the stamping of voting certificates was "conspiracy" between the Republican "far right" and conservative Democrats to keep the Negroes out of the GOP primary.

Presumably, the Democrats involved in the "conspiracy" had to be the legislators who approved the date stamp. Anyone who knows anything about the relationship between Charleston's Legislative Delegation and the leadership of the local Republican Party couldn't help but be amused by that suggestion.

A columnist, of course, is in a different category from a reporter. His views are most often presented on or near the editorial page and his conclusions should clearly be labeled his own. The reporter whose work appears in the news columns should be accurately reflecting what someone else has to say.

While Evans and Novak are entitled, as columnists, to draw certain conclusions, they made several serious factual errors.

"Obstensibly," they said, "the new law was intended to prevent double-voting. But, double-voting was impossible anyway because each voter in the Republican primary had to sign his name on entering the polling booth. That guaranteed voting registrants as absolute check against double-voting."

Obviously Evans and Novak just weren't quite up on the procedure.

The Republicans and Democrats had separate polling lists with the names of all registered voters in their particular counties.

A voter balloting in the GOP primary did indeed have to sign in. However, that Republican poll list was that party's property to which the Democrats had no access for their primary three days later.

It's simple. Without some kind of stamp there was nothing to prevent someone from voting in the Republican primary on Feb. 20 and the Democratic primary on Feb. 23.

There really was no disagreement on that point between parties. In fact, it was the Republicans who pointed out the need for some kind of stamp when they had their first primary in Charleston County in 1968.

The disagreement, of course, was over whether the registration certificate should carry the date of the primary, which months later still could identify which election the voter had chosen.

Apparently no one told Evans and Novak that the legislator who fought the hardest against putting the date on the stamp was Republican Rep. J. Sidi Limehouse III, who is considered among the most conservative.

Limehouse's objections had nothing to do with the Negro vote. He simply is opposed to the idea of party registration and that's what he said the vote stamp would accomplish, in a mild form.

It's doubtful that Evans and Novak are hinting that party registration is a "conspiracy." South Carolina is one of the few states in the nation that doesn't require voters to register as Republicans, Democrats or independents.

Putting the date on the stamp really had nothing to do with the primary itself. Anyone who voted in the GOP election would have been "stamped" and couldn't also have been "stamped" in the Democratic primary.

In effect, the use of the same type stamp would have stopped the possibility of "double voting." The date was added by the lawmakers, they said, because of the possibility of run-off elections and the fact that it provided an easier check.

Limehouse argued, and he was correct, that the stamp would have been sufficient and the party workers then could have checked their separate lists for their runoffs. It just would have been more time-consuming.

There was a suggestion that anyone who objected to the stamp after the run-offs were over, simply could mark through them. That, of course, is a lot less permanent than party registration, the foundation of most state's political process.

Of course, the Evans and Novak column prompted some legislative screams and certain suggestions that there should be some sort of newspaper censorship.

The publication of those objections, however, make the checks and balances obvious.

[From the Washington Post, Mar. 3, 1971]

STATUS QUO SUITS SOUTH CAROLINA GOP

(By Rowland Evans and Robert Novak)

The abysmal failure of the White House-aided effort to attract black voters into the recent Republican primary for Congress in the Charleston, S.C. district resulted directly from conspiracy between the Republican far right and dominant conservative Democrats represented for 30 years by the late Rep. Mendel Rivers.

That failure, in a major test of White House aide Harry Dent's quiet campaign to broaden the Republican base in South Carolina with infusions of Negro voters, points up President Nixon's large Southern problem: breaking through the Democrats' total control of the Southern black vote for the 1972, election.

The prospect of a breakthrough in Rivers' district was particularly rosy because Arthur Ravenel Jr., a Charleston builder of low-cost homes for rural Negro families, probably stands higher with blacks than any other politician in the district. With blacks comprising 35 percent of the total registration, Ravenel seemed assured of at least 2,000 black votes in the Feb. 20 primary election.

But Ravenel was not the choice of far-right Republicans who now control the state executive committee. Nor was he by any stretch favored by conservative Democrats, who feared the prospect of a Republican foe dipping into the district's huge black vote.

Joined by this community of interest, right-wing Republicans and conservative Democrats conspired to push a last-minute law through the legislature. Passed three days before the primary election, that law required all voters to have their registration certificates stamped with the date of the primary when they came to the polls to vote.

With no party registration and with the Republican primary held three days before the Democratic primary, the date-stamping law was nothing less than an effort to intimidate black voters with an implied threat of retaliation if they voted in the Republican primary. With the date of their vote stamped on their registration certificates, they would be easily identifiable.

Ostensibly, the new law was intended to prevent double-voting. But double-voting was impossible anyway because each voter in the Republican primary had to sign his name on entering the polling booth. That guaranteed voting registrars an absolute check against double-voting.

The real object was intimidation. Thus, on the evening after the new law was signed, black leaders of the Democratic Party held meetings in rural churches throughout the first district warning that any one who voted in the Republican primary would be indelibly marked.

Negro preachers warned their congregations that the district had always been Democratic and that any Negro who voted in the Republican primary would alienate the overwhelmingly Democratic white power structure.

Such intimidation proved wildly successful. Instead of the minimum 2,000 black votes Ravenel had every reason to expect no more than 100 blacks voted on Feb. 20—just over 1 percent of the total. The winner was a far-right conservative dentist, Dr. James Edwards, whose credentials included powerful backing of the local John Birch Society. Edwards, who was Gov. Ronald Reagan's leading South Carolina backer before the 1968 Convention, will lose overwhelmingly in the April 27 election against the Democratic nominee, Mendel Davis. Significantly, the district's large black vote will be neutralized.

The result for Mr. Nixon is all too clear. Instead of his party bidding for Negro support, as Dent has publicly advocated, the blacks—at least in Charleston—remain invited out by the far right. That is precisely the way the new Republican state chairman, Kenneth Powell, wants it.

It was to defeat Powell's bid for state chairman two months ago that Dent went to Columbia, S.C., to appeal for the party to open its doors to blacks and to younger voters with far more moderate politics than the brand practiced by Powell and Dr. Edwards. Dent lost that fight.

Had Powell lost out as state chairman, there would have been no Republican collusion with Democrats on the date-stamping law. Moreover, the party would then have formally protested that law to the Justice Department, on grounds that it violated the Voting Rights Act (which is designed to maximize black voting).

But no protest was made by Chairman Powell. He and the reigning South Carolina Republicans are happy with the status quo.

TRIBUTE TO SENATOR LONG

Mr. THURMOND. Mr. President, according to an excellent article written by the very talented Mr. Frank Van Der Linden, a promise has been made by one of my colleagues and friends, Senator RUSSELL LONG of Louisiana, which deserves high praise and commendation.

The able Senator has called attention to one of the most painful dilemmas in our Nation—the welfare cheaters.

As one who has long fought conditions which allow able-bodied persons to use loop holes in the law to receive welfare benefits under false pretenses. I am very favorably impressed with Senator LONG's promise to tighten up on welfare regulations.

According to Mr. Van Der Linden, Senator LONG says:

I don't think a man should be allowed to turn down any job. Here in Washington, D.C., where 10 percent of the people are on welfare, the streets are littered with trash and yet filthy hippies around Georgetown are living on welfare although they're perfectly able to work If I have any influence, we will write into the reform bill a stiff requirement for somebody to check and certify that people are really eligible for welfare.

Mr. President, I agree wholeheartedly with my colleague. I hope the whole country will become aware of what he is trying to accomplish.

The article to which I refer appeared in the March 15 issue of the Nashville Banner of Nashville, Tenn. This paper, which enjoys one of the best reputations in the United States, is published under the direction of my good friend, Capt. James G. Stahlman. I ask unanimous consent that this article be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

SENATOR RUSSELL LONG TO WAGE FIGHT AGAINST NATION'S WELFARE CHEATERS

(By Frank Van Der Linden)

WASHINGTON.—Senate Finance Committee Chairman Russell Long says he will fight for tough provisions to help clean up the "welfare mess," including measures aimed at catching "welfare cheaters" and "runaway fathers" and to require able-bodied adults to take jobs or training.

The Louisiana Democrat says a bill for "real reform" of the rapidly growing welfare program has a good chance of winning approval by Congress this year but only after a replay of last year's bruising battle which ended in no bill at all.

Long opposes the Nixon administration plan for guaranteeing a minimum income of about $2,200 annually for a family of four. One version of this won House approval last April by a 243 to 155 vote but died in the Senate's session-end legislative snarl in December.

"The guaranteed annual income plan could keep all the evils of the present welfare mess and increase the number of people on welfare from 10 to 24 million in one fell swoop," Long said in an interview. "It also could set the stage for drastic future increases.

"If Congress is going to assume the burden of guaranteeing an income there is no logical reason to stop short of the poverty level, or $3,700 for a family of four. That could run the cost up to about $30 billion a year, for 59 million people. They would form an enormously powerful political bloc, and next they would demand the $5,500 a year which the national welfare rights organization is hollering for—$56 billion a year for 98 million people.

"Only last year when our Finance Committee was meeting, their members were charging up and down the halls shouting '$5,500 or fight; kill, kill, kill.'"

HEW Secretary Elliot Richardson has noted that the aid to dependent children payments now vary from an average of $46 per month for a family of four in Mississippi to $265 for a family in New Jersey.

House Ways and Means Committee Chairman Wilbur Mills, D-Ark., supports the basic idea of the guaranteed minimum income for the working poor, but his new bill will require that recipients either take work or training for a job.

"Mills expects to have a welfare reform bill passed by the House by Easter, April 11," Long said. "It's going to have much stronger work requirements than the previous one."

Long said the administration bill, although requiring welfare recipients to register for "suitable" work, allowed "a multitude of excuses for not going to work."

"I don't think a man should be allowed to turn down any job," the Louisiana senator said. "Here in Washington, D.C., where 10 per cent of the people are on welfare, the streets are littered with trash and yet filthy hippies around Georgetown are living on welfare although they're perfectly able to work."

"If I have any influence, we will write into the reform bill a stiff requirement for somebody to check and certify that people are really eligible for welfare," Long said. "One big reason for the frightening increase in welfare payments is that the new rules allow almost anyone to sign up on his own declaration of need."

Other reasons for the rise in the nation's welfare rolls at the rate of about 200,000 cases a month, Long said, are these:

"1. Government-paid anti-poverty lawyers are suing the states to make them pay more to welfare clients.

"2. The Supreme Court struck down the 'man-in-the-house' rule, so that many more people are eligible for aid to dependent children.

"3. The courts have knocked down the residency requirements and made it easy to get onto the rolls and cheat."

"I don't see how you can beat the cheaters unless you finger-print everybody who get a welfare check," Long said. "But I know the 'welfare rights' people will be screaming that it is criminal to ask for fingerprints."

Long also plans to introduce a new "federal child support law" which would have federal agencies help find fathers who run across state lines and refuse to support their families.

"I would have them traced through their Social Security numbers and garnishee their checks," the senator said. "I would make it to mama's advantage to find papa, by giving her at least half of the money recovered from him."

"We haven't faced up to the real problem," the senator said. "Figures show that 11 per cent of the white children on welfare and 40 per cent of the blacks, are living with one parent, usually the mother." The present law discriminates against the father who stays home and works to support his family, Long said—and the administration agrees.

"Let's assume a man is working for $6,000 a year," the chairman said. "If he lives with the family, the government reduces the welfare payment by 80 per cent. If he pretends he's not living with the family, and shows up only to help mama spend the welfare check, they draw the full amount."

"We should pay people to work," Long said. "I'd be willing to vote for a bill stating that, if a man works 40 hours a week and still can't support his family properly, we would pay $100 a month in supplemental income. I won't take the labor union's proposition that his job must pay the minimum wage. I hope to bypass a confrontation with organized labor. It's not the job we'd be subsidizing, but the working father."

TRIBUTE TO COACH FRANK McGUIRE AND JOHN ROCHE, THREE-TIME ALL-AMERICAN

Mr. THURMOND. Mr. President, the State of South Carolina is proud of the basketball record achieved this season by the Gamecocks of the University of South Carolina. Led by the highly renowned Frank McGuire, who has established himself as one of the finest basketball coaches in the United States, the Gamecocks compiled a record of 23–6 this year, and they won the Atlantic Coast Conference championship.

Mr. President, Coach McGuire has now completed his seventh season at the University of South Carolina. He has built the Gamecocks into a team that has figured prominently in national rankings during the past few years. In 1970 he was named the National Coach of the Year, an honor which he accepted for the third time. He was similarly cited in 1952 while head coach at St. John's, and in 1957 at the University of North Carolina. Only the famed Adolph Rupp of Kentucky and John Wooden of UCLA have won this honor more than once.

Coach McGuire built a well-balanced team with such stars as Tom Owens, Tom Riker, John Ribock, Kevin Joyce, Bob Carver, Rick Aydlett, and John Roche. A special honor took place recently with the selection of John third consecutive year. Sports statistics record only a handfull of athletes to be named All-American three straight years.

This young man has performed outstandingly during his career at the University of South Carolina. Frank McGuire has called Roche "the finest all-around player in the history of the Atlantic Coast Conference." The coach said Roche "can dominate a game like no other player in college basketball today."

Look magazine, one of several All-American selectors to name Roche to their first team last year, said he was "the most unselfish player of the year and maybe of the decade."

Not only was John Roche named All-American for three straight seasons, but he has also been honored as the Atlantic Coast Conference Player of the Year for the previous 2 years. He barely missed receiving that honor again this season. Had he been chosen again, he would have been the only player ever to be named ACC Player of the Year three times.

Last year Roche led the Gamecocks to a perfect 14–0 regular season mark in the Atlantic Coast Conference, rated by many as the toughest conference in the Nation. This year he led his team to victory in the ACC tournament, earning for the University of South Carolina a berth in the NCAA regional tournament where they were finally eliminated by a fine team from the University of Pennsylvania.

Coach McGuire says:

John Roche should be a strong contender for National Player-of-the-Year honors. He is the closest thing to a Jerry West that I've seen. I believe we would have had a chance to go all the way last year if it hadn't been for John's unfortunate injury in the ACC Tournament. Every team, even the great ones, needs a home run hitter. That man for us is John Roche.

Mr. President, this young man has averaged nearly 23 points per game for 3 years despite stalling and deliberate slowdown tactics by many opponents. At the same time, he led the team in assists, proving himself a valuable team man.

Tom Price, the sports information director at the University of South Carolina, has compiled a few paragraphs included in information released from his office which spotlight some of Roche's more outstanding achievements. I refer to them here:

Early in his senior season, Roche surpassed the South carolina school career scoring record that had stood for 20 years. Midway through his senior season Roche scored 56 points in a single game to break an Atlantic Coast Conference record that had stood for 15 years. During his junior season he tied the ACC record of 41 consecuitve free throws and has continued his sensational foul line shooting as a senior, hitting better than 86 percent so far this year and 83 percent over three seasons.

Early this season, South Carolina traveled to South Bend, Indiana, to meet powerful Notre Dame. Roche scored 32 points in that game, including a perfect 16 for 16 from the foul line to spark an 85–82 South Carolina victory.

South Carolina won the prestigious Holiday Festival tournament in New York City's Madison Square Garden during the Christ-

mas Holidays and Roche was sensational. He and teammates Tom Riker and Kevin Joyce were named to the All-Tournament first team as South Carolina beat nationally ranked Western Kentucky for the championship after preliminary wins over Cornell and Providence. This marked the third consecutive year that Roche had sparked the Gamecocks to a Christmas tournament championship. As a sophomore, it was the Quaker City Classic in Philadelphia and the victim was LaSalle. The loss to the Gamecocks was the only blemish on LaSalle's record that whole season. As a junior, it was the Sugar Bowl Tournament in New Orleans and the championship game victim was Notre Dame.

John Roche has repeatedly responded to the challenge in the big games. Through this season he has directed South Carolina to a 69–16 record since his remarkable career began.

Mr. President, all of South Carolina takes pride in the achievements of the Gamecocks, Coach McGuire, and John Roche. Roche and his teammates stand as an example for future college athletes to emulate. Despite the time expended on the basketball court, the All-American Roche has still achieved an overall A-minus grade average in his academic work. He has demonstrated the highest quality of sportsmanship on and off the court, and he is one of the best examples I know of the product that college athletics should always strive to produce.

MRS. MARTHA STRINGFELLOW, NATIONAL TEACHER OF THE YEAR FINALIST

Mr. THURMOND. Mr. President, in a day when the public is hearing much about the problems of the teaching profession, when unrest and protest in our schools are almost ordinary in our newspapers, it is most refreshing, indeed, to learn of a teaching situation that is functioning just the way we would have it function.

There is a little brick schoolhouse in a rural area of my State of South Carolina where a very unusual teacher has received national acclaim for her devotion to students and for her abundance of talent in ministering to their needs.

She is Mrs. Martha Stringfellow, a first grade teacher, who teaches in the county school system of Chester County. This unusual lady has been named the South Carolina Teacher of the Year for 1971, and she is one of the five finalists selected from among more than 2 million teachers in our country from whom will be selected the National Teacher of the Year.

Mr. President, this expert teacher does not specialize in a certain teaching method—she specializes in the worth of the individual student. When she describes her teaching philosophy, she calls it "individualized teaching." She says that—

> Every child is different—has different abilities and different needs. You can't fit a shoe on every foot, so I try to present learning materials that will fit each child.

A very excellent feature article on Mrs. Stringfellow has appeared recently in the March 21 issue of the State of Columbia, S.C. This extremely interesting feature, written by one of the States' ablest staff writers, Miss Charlotte Wyndham, describes this outstanding teacher as one who "doesn't understand the new breed of teacher who is becoming militant in demanding rights. She's simple enough in her thinking to believe still that "We must act and think professionally, to set examples for our young people to follow.' "

Mr. President, I ask unanimous consent that this feature article be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

INDIVIDUAL CONCERN IS KEY TO HAPPY LEARNING

(By Charlotte Wyndham)

Nestled among the Christmasy pines on a winding rural road in Chester County is an ordinary brick school.

But there's something going on inside that's far from ordinary in education today.

Opening the door to Mrs. Martha Stringfellow's first grade, a visitor is compelled to stop a moment to take in the kaleidoscope of color, materials and creative activity going on.

Sifting through all this atmosphere, the thing that strikes a visitor most is the happy, interested faces of the 20 little six-year-olds, who are learning . . . in spite of their backgrounds or IQ's.

The manipulator of this educational drama, Martha Stringfellow, has distinguished herself, her profession and her state by emerging from the ranks of over two million of the nation's teachers to become one of the five finalists in Look Magazine's Teacher of the Year Award.

Named S.C. Teacher of the Year for 1971, Mrs. Stringfellow awaits the national decision by doing what she's been doing for 14 years . . . "giving each child an opportunity to find success in education."

It would be hard to say who's enjoying himself more . . . the little learners or their teacher. Martha Stringfellow's enthusiasm and love for what she's doing are registered in her happy smile and boundless energy.

The classroom (the decor almost entirely crafted by the children) is made up of gaily painted bird houses, posters of clown and clouds, a newsboard (with articles about their "celebrity" teacher, among other items), a burlapped, red-curtained puppet stage (for the children to act out their own dramas), a bowl of fish, a box growing potatoes (which they later will harvest and bake), and a scattering of learning puzzles on the floor. It's a hodgepodge of anything and everything that each child has personal involvement in.

And strangely enough, this unorthodox schoolroom setting is not chaotic. It is a quiet explosion of children learning those things that interest them.

Pressed to explain her philosophy and techniques of teaching, the 56-year-old mother and grandmother put it very simply: "It's individualized teaching. Every child is different—has different abilities and different needs. You can't fit a shoe on every foot, so I try to present learning materials that will fit each child." Her classroom approach has been described as "plywood and flexibility."

Mrs. Stringfellow remembered a little girl named Kathy who was so shut up inside herself, she was considered a failure in her school work and headed for the bin marked "special education."

"I begged them to let me keep Kathy," Mrs. Stringfellow said. "Bless her little heart, after awhile in our classroom, where she was shown love and concern, she started talking. She just needed to feel like somebody."

This feeling of love and concern has spilled over to each child in the classroom. "When Kathy wrote her name for the first time, the whole class clapped their hands and were so proud of her," Mrs. Stringfellow reminisced.

"You know," her head tilted pensively, "people don't seem to care about each other anymore. We want to care. If any child is sick, the children make cards, or we might bake a cake to take. Sometimes we gather money or clothing for someone we hear about who is in need."

Simplicity and dedication might best sum up this outstanding educator. She still believes in the basics: love, understanding and prayer. "Why, our little devotion in class each morning sets our day. Each one is eager to say out loud his own little prayer."

Dedication? Martha Stringfellow doesn't understand the new breed of teacher who is becoming militant in demanding rights. She's simple enough in her thinking to believe still that "We must act and think professionally . . . to set examples for our young people to follow."

None of these beliefs are new for the Winthrop alumna of 1937, although when she first started teaching in a one-room school at Lowery, S.C., "I did sort of keep to the textbook."

But it wasn't long before she started making "little extras" to hold the children's attention. She began recognizing early in her teaching career that every child learned at a different pace. "I tried to find their weaknesses and strengths and work from there."

That's why today she's entirely opposed to the graded system in schools. "We don't talk about groups, grades or comparisons in my room. A child should not fail or pass to the next grade, but should just continue to learn on the level he's capable of."

However, there is a definite method in her "madness." The three R's are taught, "even though the children are not aware of it."

Richie may be completely absorbed in matching numbers to a plyboard puzzle with sand paper circles pasted on it. Sandy might be lying on the floor "fishing" out letters in a bowl that will make up sounds and words.

Or the whole class may be reading, not about an unknown Dick or Jane, but a story they put together about each other's doings.

There is no hard-swallowing of the pill called learning for these youngsters. They're right in the middle of it all. It's fun and it's meaningful to slide into a unit on farms, when they all can help churn butter and make ice cream, right in class, especially when they can eat it afterwards as they did with the roasted pumpkin seeds at Haloween.

Somebody spots an unusual insect, or brings in a guinea pig, or visits in another city. These become learning projects right then and there. "Let's look it up, talk about it, write a story, make something. Let's learn about it," is the Stringfellow approach.

Moving constantly among the busy children, Martha Stringfellow's presence is known, but not interfering. She may stop for a warm hug of encouragement, or to answer a question, or to suggest, but never to dominate a learning situation.

She does have the proverbial teacher's desk and chair, but they piled high with materials. "I almost never sit down from time the children come in until they leave."

After a long day that starts a little after seven in the morning, and lasts until dark some days, Martha Stringfellow may stop at the home of a little fellow in bed with an abscessed tooth before she reaches her farm home.

Husband William is a dairy farmer and really a part of her "team." "He is so understanding of what I am doing," she said. "He is forever busy cutting plywood blocks for puzzles, chopping trees, and gathering other

home-made materials to be used in the classroom." Now he is even busier chauffeuring his wife about to receive the many honors showered on her by her proud state.

The ancestral Stringfellow home is empty most of the time now. The two older daughters, Edith and Marian, are married, and 18-year-old Ann is away in Atlanta studying art and interior design.

An air of excitement and anticipation hangs over all the Stringfellows these days, as well as the whole first grade at Chester's Lewisfield Elementary School.

If, indeed this spring, Martha Marian Stringfellow does win the national award, it only will reflect what one of her little six-year-olds already expressed, "She's a real good teacher."

THE SMITHSONIAN SYMPOSIUM ON ECOLOGICAL HAZARDS OF A SEA LEVEL CANAL AT PANAMA

Mr. THURMOND. Mr. President, the submission on December 1, 1970, to the President of the United States of the lengthy report of the Atlantic-Pacific Interoceanic Canal Study Commission under Public Law 88-609 headed by Robert B. Anderson recommending the construction of a so-called sea level canal across the American Isthmus, has rendered the situation as regards the Panama Canal acute and greatly confused.

One of the important questions that this recommendation has evoked among scientists is the effect that such project would have on the biota—animal and plant life—of the Atlantic and Pacific regions. A group of prominent biologists have charged that the Anderson Commission dangerously minimized the hazards of a sea level canal project. Such a project could allow the migration of the yellow-bellied sea snake—one of the most poisonous members of the cobra family—as far north as the beaches of the Carolinas and Virginia. Other hazards include the migration of the crown of thorns starfish, the destruction of the shrimp industry, and the invasion of Pacific sharks.

To provide an objective evaluation of the biological data on the Panama area, the Biological Society of Washington, the Conservation Foundation, and the National Museum of Natural History sponsored a symposium of recognized authorities held on March 4, 1971, in which the present state of knowledge in pertinent fields was summarized. Most appropriately, the seminar was dedicated to Dr. Waldo L. Schmitt, world famous zoologist of enormous achievement.

Organized and presided over by Dr. Meredith L. Jones of the National Museum of Natural History, past president of the Biological Society of Washington, the entire program was highly illuminating, probably raising as many questions as it answered. The assembled papers, which will be published in a single volume, should be of unusual value in research and policy determination.

As essential background information, the symposium included a paper summarizing the physical characteristics of the proposed sea level canal by Col. John P. Sheffey, former executive director of the Anderson panel, who is now a consultant in the Department of State for the negotiation of new canal treaties with Panama.

In the ensuing discussions, Colonel Sheffey supplied significant information as regards the current status of the sea level drive. Colonel Sheffey indicated:

That the investigation under Public Law 88-609 originated with the State Department after the 1964 riots—Red led Panamanian mob assault on the Canal Zone—calling for consideration of a long-range plan as a means for improving treaty relations with Panama.

That President Nixon accepted the 1964 Johnson policy but has not yet acted upon the December 1, 1970 Anderson report.

That prior to Presidential action, the report will probably be reviewed by the National Security Council.

That the main purpose of the sea level proposal in to obtain "better treaty relationships" with Panama, that if these are not obtained the project is not warranted, that it is not justified economically, and that it "may never be constructed."

That because of opposition in both the United States and Panama, the 1967 treaties will not be the basis for future negotiations.

That the study panel recognized that a sea level undertaking would be "ecologically dangerous" and urged a program of massive studies in advance of authorization of such project.

That the decision to construct a canal of sea level design at Panama would be a "political" one.

From the information supplied by Colonel Sheffey, it is evident that President Nixon has not received adequate advice or data on the ecological aspects of a sea level project without which no wise decision can be made, including that of political nature.

It is regrettable that the program did not include any discussion of the major modernization of the existing high-level lake and lock type canal according to the celebrated Terminal Lake-Third Locks plan. This proposal was developed in the Panama Canal organization as the result of World War II experience, won the full support of the Secretary of the Navy, Frank Knox, was recommended by the then Governor of the Panama Canal, Maj. Gen. Glen E. Edgerton, to the Secretary of War, Henry L. Stimson, for comprehensive investigation, and won the approval of President Franklin D. Roosevelt as a post-war project. The terminal lake solution, by retaining and increasing the size of the present fresh water barrier—Gatan Lake—between the Caribbean Sea and the Gulf of Panama, would continue to protect both the Atlantic and Pacific Oceans against the biological dangers feared by scientists. Moreover, it would provide the ideal solution of the ecological problem, all at least cost and without treaty involvement, and render entirely unnecessary a vast and costly biological investigation as recommended by the Anderson panel.

In this general connection, it should be noted that the Anderson panel was not an independent commission but merely an Executive appointed consulting board. Its task was to justify a predetermined decision for a sea-level canal embodied in its authorizing statute and not to develop realistic solutions of pressing problems related to the major modernization of the Panama Canal to provide the best conditions for the transit of ships.

Mr. President, it is hoped that Chairman Jones of the symposium and his scientific associates, when preparing the forthcoming volume, will include an adequate statement of canal history and the plan for the major modernization of existing canal for which proposed legislation is now pending in both the Senate and the House.

I have introduced this legislation as S. 734. The text will be found in my address to the Senate in the CONGRESSIONAL RECORD of February 10, 1971. Also quoted in that address is a comprehensive article on the Panama Canal quoted from the 1970 edition of the Encyclopedia Britannica. Identical legislation has been introduced in the House as H.R. 712 by Representative DANIEL J. FLOOD, of Pennsylvania.

The program for the major modernization of the canal to be authorized by these measures is strongly supported by many independent and greatly experienced engineers, navigators, geologists, economists, ecologists, nuclear warfare and other defense experts, political scientists, and many others of outstanding competence as the only sensible solution of the Canal question when it is evaluated from all angles, including the biological.

Long ago, capable students of the interoceanic canal question discovered that the best solution for engineering is also best for navigation. Now, in the light of the revelations in the March 4 symposium, it is likewise apparent that what is best for navigation is also best for ecology.

The papers at the symposium are not yet available and therefore cannot be included as part of my remarks, but they were clearly and overwhelmingly against the sea level project because of ecological considerations.

The symposium program lists the participants and the subjects of their papers. A newsstory in the Washington Post of March 5, 1971, contains information on certain specific biotic hazards.

As both the program and newsstory should be of interest to the Congress, and the scientific community as well as to all victims that may be affected, I ask unanimous consent for them to be printed in the RECORD at the conclusion of my remarks.

There being no objection, the program and newsstory were ordered to be printed in the RECORD, as follows:

THE PANAMIC BIOTA: SOME OBSERVATIONS PRIOR TO A SEA-LEVEL CANAL

It has been proposed that a sea-level canal be built connecting the Caribbean Sea and the Pacific Ocean. It has been predicted that such a canal would affect many organisms associated with it, both terrestrial and aquatic. It is our concern, apart from the impact of such a structure on the biota of the area, that there may not be sufficient knowledge of the plants and animals of the region to provide base line information for later comparative studies, nor to ensure that the construction

of such a canal be made in accordance with proper conservation procedures.

Recent discussions by biologists of a sea-level Central American Canal have emphasized the effects of such a canal on the biota of the Caribbean Sea and the Pacific Ocean. Most often these discussions have been based either on literature records or, where few collections or observations have been made, supposition.

We believe that an objective evaluation of the biological knowledge of the Panamic region is essential and are convening this meeting to hear authoritative summaries of the present state of knowledge in various fields.

PROGRAM

8:30—*Introduction.* Meredith L. Jones, Past President, Biological Society of Washington.

8:35—*A tribute to Waldo L. Schmitt.* George A. Llano, National Science Foundation.

8:50—*The background of the sea-level canal.* David Challinor, Smithsonian Institution.

9:10—*The general ecology of the Caribbean and Pacific coasts of Panama.* Peter W. Glynn, Smithsonian Tropical Research Institute.

9:30—*Physical characteristics of the proposed canal.* John P. Sheffy, Atlantic-Pacific Interoceanic Canal Study Commission.

9:50—*Exchange of water through the proposed canal.* Donald R. F. Harleman, Massachusetts Institute of Technology.

10:10—*The University of Miami survey.* Gilbert L. Voss, University of Miami.

10:30–10:55—*Break.*

10:55—*Curatorial problems posed by an extensive biological survey.* Richard S. Cowan, National Museum of Natural History.

11:15—*Algae and marine vascular plants.* Sylvia Earle, Los Angeles County Museum.

11:35—*Corals.* James W. Porter, Yale University.

11:55—*Molluscs.* Axel A. Olsson, Miami, Florida.

12:15—*Crustaceans.* Larry Abele, University of Miami.

12:35–1:35—*Lunch break.*

1:35—*Echinoderms.* Richard Chester, Westinghouse Ocean Research Laboratory.

1:55—*Fish.* C. Richard Robins, University of Miami.

2:15—*Fisheries.* Harvey Bullis, National Marine Fisheries Service.

2:35—*Terrestrial plants.* Robert L. Dressler, Smithsonian Tropical Research Institute.

2:55—*Insects.* Neal A. Weber, Swarthmore College.

3:15—*Reptiles and amphibians.* Charles W. Myers, American Museum of Natural History.

3:35–4:10—*Break.*

4:10—*Birds.* Alexander Wetmore, National Museum of Natural History.

4:30—*Mammals.* Charles O. Handley, National Museum of Natural History (to be read by Roland H. Pine).

4:50—*Anthropology.* Reina Torres de Arauz, National Museum of Panama.

5:10—*Summary.* Daniel M. Cohen, President, Biological Society of Washington.

After-dinner speaker: William A. Newman, University of California, San Diego (Scripps Institution of Oceanography), a member of the Committee on Ecological Research for the Interoceanic Canal, National Academy of Sciences.

[From the Washington Post, Mar. 5, 1971]

ECOLOGICAL RESEARCH ADVISERS WARN ON SEA-LEVEL PANAMA CANAL

(By Victor Cohn)

A new sea-level Panama Canal must not be built without a massive barrier to keep Atlantic and Pacific species separated, scientist-members of an official advisory panel warned yesterday.

A decision to build a new canal should not even be made, they added, before 12 to 14 years of biological research to make sure it would not be a new economic and ecological disaster.

The panel—a 12-man Committee on Ecological Research for the Atlantic-Pacific Interoceanic Canal Study Commission—told the commission these things late last year.

The commission, nonetheless, unequivocally told President Nixon Nov. 30 that a new canal should be built.

In doing so, it dangerously minimized the scientists' warnings, three of the scientist-advisers charged in interviews yesterday.

Hasty decisions on huge engineering projects can cause unseen ecological problems like those created by Egypt's Aswan Dam, pointed out Dr. Ernst Mayr of Harvard, the advisory panel's chairman.

But the Aswan Dam, he said, "has a dramatic effect only locally—I don't think it has much impact beyond the easternmost Mediterranean. A new Panama Canal might affect the whole Atlantic Ocean."

Mayr was reached at Arizona State University, where he is a visiting professor of zoology.

His co-members Dr. William A. Newman of the University of California's Scripps Institution of Oceanography and Dr. Daniel M. Cohen of the National Oceanographic and atmospheric Administration were among speakers on a symposium on the problem at the Smithsonian Institution yesterday.

There are three main dangers, Newman and Cohen said in interviews and some of yesterday's speakers agreed.

One is migration into the Caribbean or farther into the Atlantic of predatory Pacific species potentially deadly to some Atlantic life.

These include sharks, poisonous fish-eating sea snakes and the Crown of Thorns starfish that is decimating Pacific coral reefs and might pose the same danger in the Caribbean.

An invasion by either the crown of thorns or the venomous yellow-bellied sea snake might ruin the Caribbean tourist industry, some scientists fear.

The scientists worry most about Pacific-to-Atlantic migration because the Pacific is homewhat higher than the Atlantic and waterflow in the canal would be toward the Atlantic.

A second danger, Newman and Cohen said, is possible disruption of Central American shrimp and other fisheries, vital to local economies, by new pathogens like fungi and bacteria.

A third peril, Newman said, is "the feeling that if the fauna and flora and biota are connected, the species on one side will prove more vigorous and replace species on the other, and 5,000 to 6,000 species of plant and animals may become extinct."

"I would like to emphasize the phrase 'potential dangers' because nobody knows what will happen," Mayr said. "I rather suspect that the canal commission does not fully realize these. It does not take many organisms and you have a great problem," like the sea lamprey that entered the Great Lakes through new canals.

The commission, executive secretary John P. Sheffey said, agreed fully "that precautions need to be taken" and that long-range research should be started.

But it recommended that construction be started as early as 1975 (with a canal opening date of 1990), and agreed, Sheffey said, only that "there should be the possibility of a fresh-water barrier" against ocean-to-ocean contamination.

Twenty-five-mile-long, fresh water Gatun Lake has kept all but a few species from getting even most of the way through the present Panama Canal.

The commission does plan large tide gates to create "a slack water area," Sheffey said, and, if research proves it necessary, this could become a fresh water barrier "because the new site crosses the Trinidid arm of Gatun Lake."

He said the commission (headed by former Secretary of the Treasury Robert B. Anderson) leaned heavily on another scientific report—one far more favorable though it said facts are incomplete—by Batelle Memorial Institute of Columbus, Ohio.

The Mayr committee was named by the National Academy of Scientists at the commission's request.

PERSONAL STATEMENT BY SENATOR COOK ON VOTE ON SST

Mr. COOK. Mr. President, before we adjourn, I feel that it is appropriate to say, now that the matter of whether a program for the SST will be funded or not funded has been put to rest, that remarks be put into the RECORD with regard to the fact that I hope henceforth no governmental agency or no individual in the governmental body, either in this body or, as we affectionately refer to it, downtown, feels that it is necessary to impose on people within the media his wishes or his desires.

I have reference to the fact, Mr. President, that it became apparent that Mr. Magruder appeared on Mr. Richard Cavett's show as a direct result of more than a nominal amount of coercion. I might say, as a result of that, certainly I think Mr. Magruder was most uncomfortable, and obviously I think Mr. Cavett was uncomfortable. The result of today's vote makes it very obvious that Mr. Magruder did not convince any Senators to switch their votes.

So I can only say that, now that this matter is over, I hope that those in high places in this administration, or any administration, will realize and understand the right and the absolute freedom of an individual in this country to express what he wants to express, to be what he wants to be for, to be against what he wants to be against. It is a matter which everyone of us in this body, at least, and I think everyone in the Government, will defend as hard and as conscientiously as he can.

I hope that this Government does not interfere with Mr. Cavett or interfere in behalf of the Canadian Government so that someone might have to be on Mr. Cavett's show to comment on the fact that perhaps human beings should not kill little white seals.

I think Mr. Cavett is a very able and interesting entertainer. I do not know him. I have never met him. But I wonder who presumes to have the right to tell a man that he has to assume on his program a responsibility that he does not want to assume.

There are laws in this country that allow one, if he is dissatisfied, to take his actions before the Federal Communications Commission to be determined. I think for anyone in a high and responsible position to deem it necessary to force his way on a television program is something that ought to be, and certainly is in my mind, foreign to this country.

I might say I feel that I probably could not have made these remarks tomorrow

morning. I think they ought to be made today. I think they ought to have been made after the vote that was taken today.

I think all of us ought to reaffirm very emphatically a trust and an affirmation in the fact that those people who appear on television have the right to say what they want, with the understanding that if somebody wants to say something different, he has the opportunity to go on that media and do so. The law allows it and requires it, but it never requires, and it should not require, that one should find himself in an embarrassing position on that media. I think that is what occurred. I frankly feel that somebody, somewhere, not only should apologize to Mr. Cavett, but to Mr. Magruder, for putting him in a most uncomfortable position.

Mr. BYRD of West Virginia. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. BAYH. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

PROPOSED RESOLUTION ON THE NEED TO DEVELOP ALTERNATIVE EMPLOYMENT OPPORTUNITIES TO THE SST

Mr. BAYH. Mr. President, as previously announced, if I had been present on the SST vote, which recently was taken by this body, I would have voted against it.

I shall not go into detail to describe all the particular things that have happened in the last 10 hours that prohibited me from having a chance to be here, but suffice it to say that the past few hours have been some of the most excruciating in my life, in which I left a couple of cars stranded in snowbanks, and tried at the last minute to charter an airplane, only to get here after the vote.

I am certainly glad to see that the Senate did go on record, as it did last year, in striking out the SST funds. I think this is an extremely important first step toward reordering our priorities and dealing with some of the unfinished business which confronts our society.

I have been concerned, over the past several months, during which the SST debate has raged, with the impact that the termination of this program could conceivably have on those who are presently employed in the construction and the implementation of the SST program. For some time now I have been greatly troubled by arguments about the job creating impact of the SST. With the general employment picture still very weak, I for one would not want to take any action that might further aggravate an already serious problem—and an unemployment rate of nearly 6 percent is indeed a serious national problem. I do not believe, however, that by voting to stop the SST the Senate is denying American workers employment opportunities that otherwise would not be available. Currently, there are a number of underfunded public projects, such as urban renewal, urban mass transit, and the construction of waste treatment plants, that are more worthy candidates for Federal tax dollars—more worthy in terms of both employment opportunities and social benefits.

Despite statements by proponents of the plane to the effect that continuing the SST program would produce 150,000 jobs, I have yet to see an adequate explanation of how that figure was arrived at. Only by using the "most favorable case" for every assumption surrounding the SST can we even approximate 150,000 jobs—sometime around 1985, after the production of 500 planes, and then only by using what one leading economist has described as some "dubious and unproven multipliers." Furthermore, many of these jobs are unlikely to be new employment opportunities but the result of displacing workers presently involved in the production of subsonic aircraft.

It seems obvious to me, Mr. President, that a Government investment of $1.3 billion will generate some new jobs—whatever the project. An investment of $1.3 billion in the SST, however, is likely to produce less total employment than an equal investment in almost any other project because a substantial portion of the investment is in hardware, not people, and, the aerospace industry has an extremely high average wage.

The critical point, both in terms of economic benefits and social costs, is whether we ought to produce something we do not really need in the hope of creating some additional employment. I think not, particularly since the Assistant Secretary of Labor for Manpower, Arnold Weber, has said that "the net employment increase from SST production would likely be negligible."

Now is the time to put an end to this unwise and costly investment of critically needed tax dollars, before the development of two Government subsidized prototypes leads to pressures to produce a plane that the market place cannot support.

I, too, am deeply concerned about the fate of those workers involved in the present program. When the Federal Government makes a significant change in policy, as in the case of Congress' action on the SST, the Government has a definite moral responsibility to ease the burden on those workers adversely affected by the cancellation and to facilitate their transition into areas where there are employment opportunities. The legislative and executive branches, working in concert, now should consider how future Government contracts and programs can be allocated so as to best utilize the SST workforce.

Toward that end, Mr. President, I am introducing a sense-of-the-Senate resolution expressing the Senate's concern for the fate of the SST workforce and urging the development of programs to provide transitional assistance and for the channeling of Government contracts into affected areas.

Therefore, Mr. President, pursuant to a statement which I made last December when we previously discussed this matter, I submit at this time a sense of the Senate resolution which deals with the matter, feeling that the Senate, the House of Representatives, and the President have a responsibility to try to ease the burdens on the workers who are presently affected or will be affected by this particular vote.

Mr. President, I ask unanimous consent that the resolution be held at the desk, and that it be incorporated in the RECORD, so that other Senators will have a chance to read it.

I think it will be a noncontroversial resolution, the trust of which is adequately described in my remarks: an effort to relocate employees or locate other types of governmental programs in which similar skills are used, which I think is a responsibility of all of us in Government.

Mr. GRIFFIN. Mr. President, reserving the right to object, does the Senator from Indiana request that the resolution be held at the desk for a period of time, and then be referred to a committee?

Mr. BAYH. I was hoping that the resolution would meet with unanimous support in the Senate, and could be voted on some time next week, after everyone had had a chance to read it in the RECORD and be apprised of it.

Mr. GRIFFIN. I have no idea what the resolution is, or anything about its merits, but it would seem to me that it would be appropriate for it to be referred to a committee, where hearings could be held. I do not know what committee would have jurisdiction. As far as holding it at the desk for a limited period of time to allow other Senators to join as cosponsors is concerned, I would have no objection to that.

The Senator from Indiana must realize, of course, that every bill that is introduced, one would not expect to be handled in this way.

Mr. BAYH. I am aware of that, but I am also aware, as I am sure my friend from Michigan is, that there are a number of matters which are not strictly of legislative character, which are not designated and sent to committees, but are so held.

Mr. GRIFFIN. Mr. President, I have to object.

The PRESIDING OFFICER. Objection is heard. What is the will of the Senate?

Mr. BAYH. Mr. President, I suppose I still have the floor, a parliamentary inquiry.

The PRESIDING OFFICER. The Senator will state it.

Mr. BAYH. Will this measure then be designated for committee assignment, or sent to a committee?

The PRESIDING OFFICER. The Senator is correct.

Mr. BAYH. I shall not discuss it further now. I regret the fact the Senator from Michigan has made this objection. I think he does share my concern for the plight of those who are presently employed in the SST program.

I, for one, see no reason why we have to have prolonged hearings before we, as the Senate, can go on record saying that we think something needs to be done now. The reason why I wanted to have the measure held at the desk was that every week, perhaps every day, the various agencies of the Federal Government

are designating, assigning, and authorizing contracts to be let to do a wide variety of public works type programs. One similar program that I think could be very applicable to the resolution submitted by me is the mass transit program, just for one. That is why I hate to see the matter get involved in a logjam of other legislation, when it would be a matter of simply considering it some time next week. It is not that the Senator from Indiana is in any way trying to run something by, or in any way pull the wool over someone's eyes, but just trying to expedite the matter.

But, of course, the Senator from Michigan is well within his rights to object if he desires, and he did.

Mr. GRIFFIN. Mr. President, I want to make it clear for the RECORD that I feel I must do this in my leadership capacity, without any regard to the merits of the particular proposal. As I said earlier, I do not know what is in it. I take it that it calls for some relief, or calls for action that would cost money, and if that is the case, it would seem to me it ought to be considered by the appropriate committee.

Mr. BAYH. Mr. President, in view of the position of the Senator from Michigan, while I had intended to submit this resolution today, I withdraw it.

Mr. President, because of the concern of the Senator from Michigan, I should like to have this resolution printed in the RECORD—I think I did ask unanimous consent for that earlier—so that he and other Members of the Senate can have the chance to read it; and then the Senator from Indiana fully intends to introduce again, the first of next week, at which time I hope there will be no objection and that we can rapidly put the record straight—that the Senate has compassion for the workers involved in the SST program and feels that there are alternative means of employing them, and that the SST is not the beginning of the end of jobs for them.

I ask unanimous consent to have the resolution printed in the RECORD.

Mr. GRIFFIN. Mr. President, will the Senator yield?

Mr. BAYH. I yield.

Mr. GRIFFIN. As I understand it, the Senator is asking unanimous consent that the proposed resolution be printed in the RECORD, a resolution which he intends to introduce next week.

Mr. BAYH. That is correct.

Mr. GRIFFIN. I have no objection.

There being no objection, the resolution was ordered to be printed in the RECORD, as follows:

S. RES. —

Declaring it to be the sense of the Senate that the Federal Government has a responsibility to those workers affected by the cancellation of the SST

Whereas it is the decision of the Senate to cancel the Federal Government's financial involvement in the development of two prototype SSTs

Whereas the Federal Government, after making a significant and abrupt change in its policy, bears a responsibility for easing the hardships imposed upon those workers presently employed in the SST program

Whereas the Federal Government, in the "Adjustment Assistance" provisions of the Trade Expansion Act of 1962, has established a precedent for compensating American workers who have suffered from governmental policies

Whereas officials of the Model Cities division of the Department of Housing and Urban Development have developed a retraining program to utilize the talents of the growing number of unemployed scientists and engineers

Resolved, That it is the sense of the Senate that in order to evidence its concern for those workers affected by cancellation of the SST program, the legislative and executive branches, working in concert, should immediately consider how future government contracts and programs such as urban mass transit, housing, and the construction of waste treatment plants can be allocated so as to utilize the talents of the present SST workforce and, be it further resolved, that programs be developed to provide adequate transitional assistance to the workers presently employed in the production of the prototypes.

ORDER FOR MULTIPLE REFERRAL OF S. 1344

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that the bill (S. 1344) to revise and improve national transportation programs introduced yesterday by the Senator from Illinois (Mr. PERCY), which is being held at the desk, be multiply referred to the Committee on Commerce, the Committee on Banking, Housing and Urban Affairs, the Committee on Finance, and the Committee on Public Works for their consideration of matters in the bill falling within their respective jurisdictions.

The PRESIDING OFFICER. Without objection, it is so ordered.

ORDER FOR RECOGNITION OF SENATOR MUSKIE TOMORROW

Mr. BYRD of West Virginia. I ask unanimous consent that tomorrow, immediately following the remarks by the able Senator from Mississippi (Mr. STENNIS), an order for which has already been entered, the distinguished Senator from Maine (Mr. MUSKIE) be recognized for not to exceed 15 minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

ORDER FOR ADJOURNMENT FROM TOMORROW UNTIL MONDAY

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that when the Senate completes its business tomorrow it stand in adjournment until 12 meridian on Monday next.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. BYRD of West Virginia. I wish to make the record clear, to this extent: If the Senate completes its business tomorrow, completes the work on the calendar that has been cleared, and completes its work on the nomination on the Executive Calendar, then the leadership would intend to go over until Monday next, and that is the purpose of obtaining the order requested just now. But the order will be changed if the Senate does not complete action on the matters proposed for action tomorrow.

PROGRAM

Mr. BYRD of West Virginia. Mr. President, if the able assistant Republican leader has no statement at this time, I shall proceed to state the program for tomorrow.

The Senate will convene at 10 a.m. tomorrow, following an adjournment. Immediately following the disposition of the reading of the Journal, the recognition of the two leaders or their designees, under the standing order, and the transaction of any unobjected to business on the legislative calendar, the distinguished Senator from Minnesota (Mr. HUMPHREY), together with the Senator from Michigan (Mr. HART), the Senator from Kentucky (Mr. COOPER), and other Senators, will be recognized for not to exceed 1 hour, for the purpose of conducting a colloquy on the subject of arms control.

Following this discussion, the distinguished Senator from Mississippi (Mr. STENNIS) will be recognized for not to exceed 15 minutes, after which the distinguished Senator from Maine (Mr. MUSKIE) will be recognized for not to exceed 15 minutes, at the conclusion of which there will be a period for the transaction of routine morning business, with statements therein limited to 3 minutes, the period not to extend beyond 30 minutes.

Mr. President, on the Calendar, and cleared for action, are two measures: Calendar No. 46, S. 557, a bill to amend the Wagner-O'Day Act to extend the provisions thereof to other severely handicapped individuals who are not blind, and for other purposes; and Calendar No. 48, S. 1330, a bill to authorize the Secretary of the Treasury to transfer to the Government of the Republic of the Philippines funds for making payments on certain pre-1934 bonds of the Philippines, and for other purposes. It is anticipated that the Senate may be able to take action on these two measures by unanimous consent early in the day tomorrow.

Following the period for the transaction of routine morning business tomorrow, it is anticipated that the Senate will proceed to the consideration of the nomination of Mr. William J. Casey, of New York, to be a member of the Securities and Exchange Commission.

If the Senate completes its work on these items tomorrow, the Senate will thereupon adjourn until 12 o'clock meridian on Monday next.

ADJOURNMENT UNTIL 10 A.M. TOMORROW

Mr. BYRD of West Virginia. Mr. President, if there be no further business to come before the Senate, I move, in accordance with the previous order, that the Senate stand in adjournment until 10 a.m. tomorrow.

The motion was agreed to; and (at 5 o'clock and 54 minutes p.m.) the Senate adjourned until tomorrow, Thursday, March 25, 1971, at 10 a.m.

NOMINATIONS

Executive nominations received by the Senate March 24 (legislative day of March 23), 1971:

U.S. COAST GUARD

The following-named officers of the Coast Guard for promotion to the grade of lieutenant (junior grade):

Glenn G. Kolk
Edward J. Beder, Jr.
Michael F. Flessner
Gary R. McGuffin
Michael D. Allen
Frank J. Tintera, Jr.
Harold W. Henderson
David R. Moore
Charles R. Weir
Joel A. Thuma
John K. Kirkpatrick
David S. Belz
Donald R. Dickmann
Thomas L. Davis
Richard D. Crane
Douglas C. Phillips
James B. Friderici
Michael D. Gentile
James B. Clarke
Rodney L. Cook
James R. Beach
Timothy L. Terriberry
David J. Reichl
William B. Thomas
John H. Baker III
James G. Marthaler
Gerald A. Gallion
Robert D. Sirois
Harold D. Ketchen
Thomas L. Mills
Paul C. Jackson
James S. Carmichael
Kevin L. Ray
Richie M. Keig
Peter C. Olsen
Joseph L. Bryson
Michael D. Cooley
Gregory S. Voyik
William E. Kozak
Roy J. Casto
Alan F. Walker
Terrance M. Edwards
Mark A. Ohara
Gale W. Fisk
Ronald A. Marcolini
Robert J. Williamson, Jr.
Thomas J. Zieziulewicz
Peter Q. Pichini
William H. Anderson
Lawson W. Brigham
John F. Hughes
Ernest J. Blanchard IV
Larry F. Lanier
Terry M. Cross
Dennis R. McLean
James Q. Neas, Jr.
John E. Hodukavich
Ralph A. Yates
George P. Waselus
Horton W. Johnson
David E. Wilson
Jeffrey N. Compton
William L. Beason, Jr.
Ralph D. Utley
Thomas B. Taylor
Roger C. Cook
Julius B. Sadilek
Henry J. Rohrs, Jr.
Anthony S. Tangeman
Richard W. Brandes
John R. Mitchell
Frederic N. M. Squires III
Douglas B. Stevenson
Anthony R. Souza
Stephen R. Rottier
Paul L. Hagstrom
Philip E. Sherer
Anthony T. Mink
Edward J. Dennehy
George F. Johnson
Kenneth M. Zobel
Thomas E. Bernard
Andrew Malenki III
Alan E. Spackman
Steven A. Macey, Jr.
John A. Gaughan
Charles R. Brown
Albert J. Sabol
W. A. McDonough, Jr.
Kenneth C. Kreutter
David T. Jones
Bruce B. Stubbs
Richard S. Muller
Allen K. Boetig
Myron F. Tethal
John H. Fearnow
John E. Quill
Melvin W. Garver
Terrance P. Hart
James S. Brown
Jonathan M. Vaughn
David B. Irvine
Dennis M. Pittman
Edmund F. Labuda, Jr.
Thomas M. Howard
Marc Pettingill
Kim I. MacCartney
Michael R. Adams
John M. Murphy
Stephen M. Riddle
David J. Maloney, Jr.
Frederick H. Sellers, Jr.
John F. McGrath, Jr.
Guy T. Goodwin
James C. Olson
Samuel J. Apple
John L. Beales
David Dahlinger
Timothy G. Balunis
Robert L. Pray
Donald G. Bandzak
Thomas B. Rodino
David G. S. Binns
Lawrence V. Kumjian
Thomas W. Purtell
Edward A. McKenzie
Chester J. Walter
Donald B. Parsons, Jr.
William W. Pickrum
Richard M. Cool
Christopher Desmond
Thomas X. Worley
Robert J. Vollbrecht
Victor J. Guarino
Theophilus Moniz
Donald B. Erisman
Ernest C. Card
Douglas J. Arnold
Robert E. Pearce
James J. Rao, Jr.
Warren E. Dutton, Jr.
Paul Mularchuk
Richard J. Guhl
Bruce L. Blandford
James Perozzo
Jack D. Asbury
Donald T. McNulty
Paul T. Pelzer
William F. Meininger
Ronald T. Via
James H. Davis
Wayne T. Shipman

The following named Reserve officers to be permanent commissioned officers of the Coast Guard in the grade of lieutenant:

James H. Ferguson
David F. Withee
Robert C. North

CONFIRMATION

Executive nomination confirmed by the Senate March 24 (legislative day of March 23), 1971:

OFFICE OF ECONOMIC OPPORTUNITY

Frank Charles Carlucci III, of Pennsylvania, to be Director of the Office of Economic Opportunity.

HOUSE OF REPRESENTATIVES—*Wednesday, March 24, 1971*

The House met at 12 o'clock noon.

The Chaplain, Rev. Edward G. Latch, D.D., offered the following prayer:

This is the victory that overcometh the world, even our faith.—I John 5: 4.

O God, our Father, who art the light of the world and the lover of every human soul, let Thy spirit of righteousness and good will arise within us as we worship Thee in spirit and in truth. Burn away the barriers that separate us from our fellow men and build within us the spirit which makes for unity among men, good will in our Nation and peace for our world.

We pray that we may have the power of Thy presence to live through these Lenten days without stumbling and without stain. May our spirits strengthened by courage and vision rise to meet the trying tasks of these disturbing days.

Again we pray for our prisoners of war and for their loved ones. Grant that they may soon be released and returned to their families where love and joy wait to greet them. Make us worthy of their suffering and help us devote ourselves to greater freedom for all people.

In the spirit of Christ we pray. Amen.

THE JOURNAL

The SPEAKER. The Chair has examined the Journal of the last day's proceedings and announces to the House his approval thereof.

Without objection, the Journal stands approved.

There was no objection.

FURTHER LEGISLATIVE PROGRAM

Mr. BOGGS. Mr. Speaker, I take this time to announce that on tomorrow we will call up House Resolution 317, to create the Select Committee on the House Restaurant. The resolution has been approved by the Committee on Rules.

CAPITOL POLICE DESERVE OUR THANKS

(Mr. SIKES asked and was given permission to address the House for 1 minute, to revise and extend his remarks and include extraneous matter.)

Mr. SIKES. Mr. Speaker, my attention has been called to recent incidents in which Capitol Police have been censured by both Congressmen and staff members because the police asked for identification or sought to examine briefcases and packages. This is incomprehensible. The police are simply trying to protect those of us who work here and to save the Capitol buildings from further desecration. They should have the fullest support of every Member of Congress in what they are doing. The minor inconvenience in showing identification or in taking a moment to open a briefcase or package for inspection simply should serve to remind us of the responsibility these officers must bear.

I commend the members of the Capitol Police force. They have one of the most difficult security jobs in the world. They are charged with safeguarding Members of Congress and their staffs. As officeholders, we naturally seek to make ourselves available to the public and to accept people at face value. This makes the policeman's job doubly hard. The Capitol buildings are probably among the most accessible structures anywhere. It is almost impossible to watch every approach all of the time. Yet the Capitol Police handle these complex and difficult tasks in a very effective way.

They deserve our thanks for the service they render to us and to the Nation.

PERSONAL ANNOUNCEMENT

Mr. SEIBERLING. Mr. Speaker, as I was unavoidably detained in a conference on Tuesday, March 16, I was not present to vote on House Joint Resolution 465, the supplemental appropriation for the Department of Labor, rollcall No. 21.

Had I been present and voting, I would have voted "yea" in support of the appropriation.

CORPORATION FOR LEGAL SERVICES ACT

(Mr. CELLER asked and was given permission to address the House for 1 minute, to revise and extend his remarks and include extraneous matter.)

Mr. CELLER. Mr. Speaker, recently, legislation was offered by many of our colleagues of both parties which would take an important step toward true equality under the law. This bill, which would establish a National Legal Services Corporation, will help to insure that every American, regardless of economic status, will have his day in court. Our system of justice is based on the adversary process—and that process cannot and will not operate unless legitimate grievances are aired in a court of law with competent advocates on both sides.

The legal services program of the Office of Economic Opportunity has proven itself to be successful. So successful, in fact, that it has gained the confidence of the poor on one hand and raised