

**MARCH 25**  
 9:30 a.m.  
 Commerce, Science, and Transportation Subcommittee on Aviation  
 To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 292, and S. 689.

5110 Dirksen Building  
 10:00 a.m.  
 Banking, Housing, and Urban Affairs  
 To hold hearings on S. 406, the proposed Community Reinvestment Act.  
 5302 Dirksen Building

**MARCH 28**  
 9:30 a.m.  
 Commerce, Science, and Transportation Subcommittee on Aviation  
 To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 292, and S. 689.

5110 Dirksen Building  
**MARCH 29**  
 9:30 a.m.  
 Commerce, Science, and Transportation Subcommittee on Aviation  
 To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 292, and S. 689.

5110 Dirksen Building  
 10:00 a.m.  
 Select Intelligence Subcommittee on Budget Authorization  
 To resume closed hearings on proposed fiscal year 1978 authorization for Government intelligence activities.  
 S-407, Capitol

**MARCH 30**  
 9:30 a.m.  
 Commerce, Science, and Transportation

Subcommittee on Aviation  
 To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 292, and S. 689.  
 5110 Dirksen Building

10:00 a.m.  
 Banking, Housing, and Urban Affairs  
 To mark up proposed legislation on corporate bribery and investment disclosure.  
 5302 Dirksen Building  
**MARCH 31**

9:30 a.m.  
 Commerce, Science, and Transportation Subcommittee on Aviation  
 To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 292, and S. 689.  
 5110 Dirksen Building

10:00 a.m.  
 Foreign Relations Subcommittee on Oceans and International Environment  
 To hold hearings on S. Res. 49, expressing the sense of the Senate that the U.S. Government should seek the agreement of other governments to a proposed treaty requiring the preparation of an international environmental impact statement for any major project expected to have significant adverse effect on the physical environment.  
 4221 Dirksen Building  
**APRIL 1**

9:30 a.m.  
 Commerce, Science, and Transportation Subcommittee on Aviation  
 To hold hearings on bills proposing regulatory reform in the air transporta-

tion industry, including S. 292, and S. 689.

5110 Dirksen Building  
**APRIL 19**

10:00 a.m.  
 Banking, Housing, and Urban Affairs  
 To hold hearings on proposed legislation on housing and community development, with a view to reporting its final recommendations on housing programs to the Budget Committee by May 15.  
 5302 Dirksen Building  
**APRIL 20**

10:00 a.m.  
 Banking, Housing, and Urban Affairs  
 To hold hearings on proposed legislation on housing and community development, with a view to reporting its final recommendations on housing programs to the Budget Committee by May 15.

5302 Dirksen Building  
**APRIL 21**

10:00 a.m.  
 Banking, Housing, and Urban Affairs  
 To hold hearings on proposed legislation on housing and community development, with a view to reporting its final recommendations on housing programs to the Budget Committee by May 15.

5302 Dirksen Building  
**APRIL 22**

10:00 a.m.  
 Banking, Housing, and Urban Affairs  
 To hold hearings on proposed legislation on housing and community development, with a view to reporting its final recommendations on housing programs to the Budget Committee by May 15.

5302 Dirksen Building

## SENATE—Friday, February 25, 1977

(Legislative day of Monday, February 21, 1977)

The Senate met at 2 p.m., on the expiration of the recess, and was called to order by Hon. DANIEL PATRICK MOYNIHAN, a Senator from the State of New York.

### PRAYER

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

Eternal Father, show us how to walk the luminous trail of Him who was the Way, the Truth, and the Life. As we walk this highway make us to know that it leads to a cross of pain, to death and resurrection. Show us the truth that the giving of self is self-fulfilling, that losing life for others is to find it again resplendent and complete. May the President, the Congress, and all workers in Government be mastered by Him who came not to be ministered unto, but to minister and give His life for many.

In His name we pray. Amen.

### APPOINTMENT OF ACTING PRESIDENT PRO TEMPORE

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

The legislative clerk read the following letter:

CXXIII—342—Part 5

U.S. SENATE,  
 PRESIDENT PRO TEMPORE,  
 Washington, D.C., February 25, 1977.

To the Senate:

Being temporarily absent from the Senate on official duties, I appoint Hon. DANIEL PATRICK MOYNIHAN, a Senator from the State of New York, to perform the duties of the Chair during my absence.

JAMES O. EASTLAND,  
 President pro tempore.

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

### THE JOURNAL

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the Journal of the proceedings of yesterday, Thursday, February 24, 1977, be approved.

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

### EXECUTIVE SESSION

Mr. ROBERT C. BYRD. Mr. President, there are various nominations on the Executive Calendar which are cleared. I therefore ask unanimous consent that the Senate go into executive session to consider nominations on the Executive Calendar.

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

Mr. BAKER. Mr. President, will the Senator yield for a moment?

Mr. ROBERT C. BYRD. I yield.

Mr. BAKER. Mr. President, I might advise the majority leader that the entire Executive Calendar, including the nominations for the U.S. Air Force, the U.S. Army, the U.S. Navy, and others, through the entire content of the Executive Calendar, have been cleared on the Republican side.

Mr. ROBERT C. BYRD. I thank the distinguished Republican leader.

### NOMINATIONS ON THE EXECUTIVE CALENDAR AND ON THE SECRETARY'S DESK

Mr. ROBERT C. BYRD. I ask unanimous consent, Mr. President, that all nominations appearing on the calendar today under U.S. Air Force, U.S. Army, U.S. Navy, U.S. Marine Corps, and the nominations placed on the Secretary's desk in the Air Force, Army, and Marine Corps be considered and confirmed en bloc.

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

Mr. ROBERT C. BYRD. Now, Mr. President, I yield to the distinguished majority whip who has an especial interest in two nominations that he may ask to have those called up for consideration

by the Senate, which were reported earlier today.

Mr. CRANSTON. Mr. President, I ask that two nominations at the desk be called up at this point, for Director of the ACTION Agency and for Administrator of Veterans' Affairs.

#### VETERANS' ADMINISTRATION

The second assistant legislative clerk read the nomination of Joseph Maxwell Cleland, of Georgia, to be Administrator of Veterans' Affairs.

Mr. CRANSTON. Mr. President, I wish to say a word before we proceed with the nomination. Max Cleland, the nominee to be head of the VA, is an outstanding American with a remarkable record. He was severely wounded in Vietnam. He was an Army captain.

I first became acquainted with him when he appeared as a witness before a Veterans' Affairs hearing which I was chairing in 1969.

He will be the first Vietnam-era veteran to head the VA. He is in tune with the needs not only of the veterans who are younger, but those who are older.

He will bring, I believe, the compassion and competence to that agency that President Jimmy Carter hopes to see throughout the Government.

Nobody can do it better than Max Cleland can do it in the VA.

I am very proud to have played a part in his nomination and in the step that now brings his nomination to the floor of the Senate.

Mr. ALLEN. Will the Senator yield?

Mr. CRANSTON. Certainly.

Mr. ALLEN. Mr. President, I commend the distinguished Senator from California for his comments about Max Cleland. I, too, know Max and feel that this is indeed an outstanding choice the President has made.

I know that he will make a great head of the Veterans' Administration. I commend the President for his fine choice.

Mr. STEVENS. Mr. President, I join in the statements concerning Max Cleland. He has been our neighbor across the hall in the Russell Building for a couple of years. We have gotten to know him very well. He is a man of immense energy and, I think, mental capacity.

Certainly, we look forward to his leadership in this very vital area with great anticipation. I know that the people who have come to my office and also visited the Veterans' Affairs Committee office across the hall have all been impressed with him. We also welcome this nomination.

Mr. CRANSTON. I am delighted that we have such a proud moment in the Senate, and I urge that we now proceed with the nomination.

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

#### ACTION AGENCY

The second assistant legislative clerk read the nomination of Samuel Winfred Brown, Jr., of Colorado, to be Director of the ACTION Agency.

Mr. CRANSTON. Mr. President, I

would also like to say a word about the nomination of Sam Brown. This is another remarkable nomination by President Jimmy Carter of an outstanding young American. He is 32 years old. He was a leader of the effort against the Vietnam war but in a very peaceful, non-violent way. He headed the Vietnam moratorium.

He later was elected to public office as treasurer in the State of Colorado.

He and Max Cleland come before the Senate together in a rather unique way. Both had their own experiences and learned a very great deal in the course of the Vietnam conflict. Both were in the White House on the afternoon of January 20 with President Carter to discuss the respective assignments the two are now assuming. Their link in history in the past in the Vietnam era, now in the post-Vietnam era, and in the future in the Carter administration, is a very interesting development in the course of our country.

I am proud to speak for the Sam Brown nomination as I did speak for the nomination of Max Cleland.

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

Mr. ROBERT C. BYRD. Mr. President, I ask that the President be immediately notified of the confirmation of all nominations.

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

#### LEGISLATIVE SESSION

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the Senate return to legislative session.

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

#### ORDER EXTENDING TIME FOR FILING COMMITTEE REPORT—SENATE RESOLUTION 36

Mr. ROBERT C. BYRD. Mr. President, I do not want to impinge on the time of the distinguished Senator from New Mexico (Mr. SCHMITT) who has a special order, but I would like to ask unanimous consent at this time that the Special Committee on the Code of Public Conduct for Senators, Officers, and Employees of the Senate be given 2 additional days for the filing of its report.

Under the resolution which was adopted unanimously, and which was co-authored by the distinguished Republican leader and myself, that committee was mandated to report back to the Senate, not later than March 1, a code of ethics. According to the resolution Senate Resolution 36, the resolution was thereupon to become the immediate pending business.

The committee, under Mr. NELSON's chairmanship, has done an exceedingly extraordinary job working under great time pressures. It has, I think, completed its work in marking up the bill. But the chairman (Mr. NELSON) tells me that he feels that he needs more time in order for the report to be properly written; in order for the bill to be gone over carefully

by the staff to be sure that there are no incorrections and so forth therein; and that he would like to have a couple of extra days.

That being the case, and also, in view of the fact that I feel that Members on both sides of the aisle would like to have 2 or 3 days, at least, to study the report, I ask unanimous consent at this time—I have discussed it already with the distinguished minority leader—that the Nelson committee have until no later than March 3, at midnight, to file its report and that the majority leader be authorized to call up and make the code of ethics the pending or unfinished business at any time beginning with Monday, March 7—at any date beginning with that date or thereafter.

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

Mr. ROBERT C. BYRD. I yield to the distinguished minority leader.

Mr. BAKER. Mr. President, if the Chair will withhold action on the unanimous-consent request, I reserve my rights. I do not intend to object. I think this is a reasonable request. I, too, think the committee has done a very good job in a brief time.

Mr. ROBERT C. BYRD. And in a very fine bipartisan spirit.

Mr. BAKER. In a very good bipartisan spirit. I am happy, then, to join with the majority leader in this request.

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

#### AUTHORITY FOR SELECT COMMITTEE TO FILE REPORT ON TUESDAY, MARCH 1

Mr. ROBERT C. BYRD. Mr. President, I make the following statement on behalf of the distinguished Senator from Illinois (Mr. STEVENSON).

Pursuant to Senate Resolution 109, the Temporary Select Committee to Study the Senate Committee System is required to submit to the Senate a final report of its findings, together with recommendations, by February 28, 1977.

Since the Senate will not be in session on Monday, February 28, I ask unanimous consent that the select committee be allowed to submit its recommendations on Tuesday, March 1.

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

#### ORDER OF BUSINESS

Mr. BAKER. Mr. President, I reserve the remainder of my time.

The ACTING PRESIDENT pro tempore. Under the previous order, the Senator from New Mexico is recognized for not to exceed 15 minutes.

Mr. ROBERT C. BYRD. Mr. President, if the Senator will yield, I yield back the remainder of my time under the order.

Mr. BAKER. Mr. President, if the Senator will yield to me, I shall yield back my remaining time under the standing order.

Mr. SCHMITT. I am happy to yield.

#### COMMITTEE MEETINGS

Mr. ROBERT C. BYRD. I ask unanimous consent, Mr. President, that all

committees may be authorized to meet during the session of the Senate today.

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

#### REPORT FROM NEW MEXICO

The ACTING PRESIDENT pro tempore. Under the previous order, the Senator from New Mexico is recognized for not to exceed 15 minutes.

Mr. SCHMITT. Mr. President, I have just returned from a period of travel in my home State, New Mexico, in which I visited with the residents of the State in what we have come to call the non-legislative period, which I believe used to be called a recess. I believe it is extremely important that Congress, at every reasonable opportunity, visit with the constituents that populate the real world of this Nation, and I would like to give a brief report on what I learned, or believe I learned, during my recent visit to New Mexico.

I think it is important in our legislative activities that we listen to the opinions that our constituents have on what has been done, what we think will be done, and, maybe most importantly, what ought to be done about major problems facing our States and our Nation as a whole. The major areas of concern in New Mexico do not seem to be much different than I sense are concerns elsewhere. However, our perspective sometimes varies with that of other parts of the country.

Energy supply and energy prices are a major topic of concern, particularly from our point of view in New Mexico. We hope that the producing States such as New Mexico will not be asked to sacrifice unfairly with respect to sacrifices that should be asked of the consuming States. New Mexico, as I am sure you are well aware, is one of the leading States in the production of oil and gas and coal. We will, I am sure, be one of the leading States, if not the leading State, in the production of energy from solar sources. And we are the leading State in the production of uranium.

Another area of major concern is our national security. This, of course, has been emphasized as a consequence of the nomination of Mr. Paul C. Warnke to be a major figure in our arms control talks and in the formation of arms control policy. In general, the perception of Mr. Warnke is in conflict with the perception that he has been trying to give to the Committee on Foreign Relations and the Committee on Armed Services of the U.S. Senate. I think therein lies the most difficult problem that we have in confirming Mr. Warnke when that nomination comes before the full Senate. Perception is very important. The signal that we send to friend and foe alike in this regard must be considered. I find that the constituents in New Mexico are surprisingly well informed on Mr. Warnke's past statements and philosophy.

Maybe most critical to the individual New Mexican, and probably to every American, is a growing feeling that government, particularly Federal Government and its regulations, are extraordinarily impersonal, and that the relationships that an individual maintains are

increasingly difficult because of this impersonal nature of government and regulation. Most of the people that came to me during office hours in Albuquerque, Santa Fe and Farmington were concerned with problems of social security, veterans' retirement benefits, railroad retirement benefits, grazing regulations, and a lack of responsiveness, particularly on the part of the Department of Labor, in their regional office. These are the kinds of problems that really, when you look into them, should not occur. It is, I think, clearly related to a lack of understanding by the Federal Government and some of the people who work in the Federal Government concerning the specific nature of local problems and local situations. We must do something in this body to change this impersonality of government.

There is a great interest in New Mexico, and I detect it in most of the Western States and elsewhere, in increasing the responsibility of government at the local level. In this regard, I ask unanimous consent to have printed at the end of my remarks an address that I made to the New Mexico State Legislature which emphasizes a new view of federalism in the context of some of our present problems.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered. (See exhibit 1.)

Mr. SCHMITT. One of the problems that exists on an institutional level and which was mentioned in the conversations that I had with constituents is a lack of internal coordination within government, both between agencies of the Federal Government and between the Federal and local governments. I think that, as we proceed through this session of Congress, we must try to uncover and eliminate these areas of conflicting jurisdiction and conflicting regulations wherever they exist. It seems to be particularly critical in New Mexico relative to the use of educational funds, particularly Federal funds allocated on a categorical basis to special education programs.

Another example of this lack of apparent coordination was a recent memorandum sent to private and potential producers of oil and gas in New Mexico and in other States by the Secretary of the Interior asking for their cooperation in accelerating the production of such commodities. I think this is commendable that such a request be made, and I find that everybody that I talked to is more than happy to try to comply. However, there are many bottlenecks within the Department of the Interior that prevent compliance with such requests. For example, present pipeline interconnections in the State of New Mexico are taking at least 120 days, most of that time required to get the Bureau of Land Management to approve the interconnect.

There is also an increasing problem in dealing with the Bureau of Indian Affairs and in getting interconnects across land under their jurisdiction or under the jurisdiction of local governments. In one instance, there has been a pending request with the Bureau since last May, still no interconnect is possible—that is, an interconnect between a potential pro-

ducing gas well and an interstate pipeline.

The coal gasification plans that have been considered in our area for many years are still in a state of limbo for two reasons, first, the lack of sufficient loan guarantees by the Federal Government for these very ambitious, and I think, extremely necessary projects, and second, the great difficulty in coordination between various governmental entities—State, local, and private governments.

This brings me to an area of great concern in the State of New Mexico—and I think of growing concern throughout the country. That is, the status of our policies relative to native Americans, or what are generally called Indian affairs.

There is unbelievable confusion and growing resentment among Indians and non-Indians alike for the lack of resolution of many issues resulting from either Federal policy or the lack of policy. Communication between local and Indian and Federal Government entities must improve. As a matter of fact, if the situation does not improve very quickly I am afraid our problems have just begun.

There is another matter that illustrates the problem we have in the Congress that has just arisen. There is now authorized by act of Congress the sale of some 250,000 acres of Federal lands to the Navajo Tribe as part of the land that will be transferred to the Hopi Tribe in Arizona.

There must be some resolution to compensate the Navajo Tribe and the people displaced as a result of the agreement with the Hopis. However, there is tremendous economic impact in the sale of that magnitude of acreage of lands under the management of the Federal Government, particularly the Bureau of Land Management.

I think this authorization was approved in the Congress very late. I do not believe that we sufficiently considered the legislation and its economic impact. We must learn to consider such things fully not only in this case, but in any similar cases that may occur.

The specific concerns that were often mentioned as I talked to the constituents in New Mexico were those that related to actions that were either taken or not taken by the Federal Government.

For example, the President's pardon of Vietnam draft evaders has created great resentment in New Mexico. So, too, has the Congress failure to vote up or down on the question of top-level executive, congressional, and judicial pay raises.

Associated with the issue of pay raises is the issue of ethics. I do not find that New Mexicans demand a full disclosure of the amount of incomes. They do not necessarily demand that incomes earned or unearned be forfeited by the Members of Congress. They just want to be sure any conflicts of interest that might occur are visible and that they can, in fact, evaluate their representatives in a fair and equitable way.

We often tend to concentrate on the negative. On the positive side there was great encouragement among my constituents in New Mexico that the Senate had acted responsibly in reforming the committee structure and in insuring that there will be greater concentration of

jurisdiction over many problems that affect our State.

New Mexicans were particularly encouraged by the proposal of the distinguished Senator from Georgia (Mr. TALMADGE) to require that regulatory impact will be considered with each new piece of legislation that comes before the Senate. I was happy to cosponsor his effort in that regard.

From the standpoint of the present administration, the most enthusiasm seems to have arisen from the interest of the President in Latin American affairs and in improving Latin American policy over the next few years.

I certainly commend the President in that regard. We will cooperate and I know all the border States will cooperate, in every way possible in improving relationships with Mexico and other Latin American countries.

Finally, Mr. President, I hope that my colleagues will also see fit to report on their home State impressions during the recess, so that we all can begin to correlate the feelings of the real world with respect to our actions in the Congress, both now and in the future.

Mr. President, I yield back the remainder of my time.

#### EXHIBIT 1

##### A NEW VIEW OF FEDERALISM

(By HARRISON H. SCHMITT, U.S. Senator)

It has been four years since I had the privilege of addressing the legislature of my home state. When I last visited with you I had just returned as your representative on the moon.

Most of the problems we discussed have not disappeared but have grown worse, among the most notable are energy policy, water policy and the management of government. I see by the legislation before you that you are striving to come to grips with major portions of these problems. Before moving into the main topic of my address, I hope that you will permit me to reinforce the sense of caution which I am sure you all share.

There is no question that we must reserve a share of the financial returns from our extractions of mineral resources for future generations. The investment of their share must be in the needs of the future, most notably in education and the broadening of our economic base. However, we must be very careful that the level of taxation we establish permits our growth to continue and is based on a realistic appraisal of the economics of the extraction of specific mineral commodities.

All of the members of the legislature realize, I am sure, that our present crisis of high prices and low supply of natural gas is the direct result of a 24 year-old regulation of the price of interstate natural gas at artificially low prices. We should be wary of compounding the problem by artificial regulation of the price of gas produced for use in New Mexico. Rather we should assist national efforts to greatly increase overall supply through gradual deregulation of the price of natural gas and oil while at the same time developing temporary programs that will help the New Mexico consumer of gas bear the financial burdens of the transition to other energy sources.

As you consider the questions related to increasing the efficiency of New Mexico's state government, I am sure it is realized that whatever organizational structure is finally established, that structure must have two basic characteristics. First, the duties and responsibilities of each department and division must be clearly defined and bounded so that conflicts are minimized and your own

oversight responsibilities are manageable. Secondly, no department or division should deal with numbers of duties and responsibilities which are beyond the capability of human administrators to assimilate and manage. I hope you will show the federal government how to clean its own house.

My primary concern today, however, is the health of our federal system. Our national experiment in democracy is only a form of democracy called a "republic". The two dominant characteristics of this republic are first, that the people elect their representatives and, secondly, that the vast powers the people transfer through this process are divided between a distant central government and local city, county, and state governments.

These characteristics have given us our federal system which is guaranteed by the tenth amendment to the constitution of the United States.

The traditional constitutional battles have been those related to the restriction or preservation of state rights. Now it may be the time to take a new view of federalism, a view that recognizes that in the continued division of power we have our only real institutional protection of our personal freedoms.

It may be time for the states to assume the leadership in revitalizing the federal system, not just by resisting the encroachments of Washington, but by showing imaginative and responsive solutions to the problems that are and will be unique to our third century of national existence. The variety and traditions that are New Mexico's should enable us to lead the Nation to solutions in many problem areas.

Today, I would like to discuss several problem areas with you in an attempt to illustrate some directions the state of New Mexico might take to revitalize the federal system.

#### FREE ENTERPRISE ECONOMIC SYSTEM

Even though the extraction of mineral resources and agriculture now provide the foundation of New Mexico's economy, our unemployed and underemployed citizens and our future citizens require a broader spectrum of economic growth.

Let us show that all parts of the free enterprise system in New Mexico will thrive if state government encourages the system rather than discourages it; that a favorable tax and regulatory climate encourages the consumer to generate demand and business to generate capital; that an unrestrictive labor climate encourages employment, productivity and wages; and that research, development and imagination encourages new business and employment opportunities.

Let us show that the role of government is not to stifle and fragment competition, but that its role is to insure that all parts of the free enterprise system—consumer, business, labor, research, and government itself—compete fairly within and between themselves.

#### EFFICIENT GOVERNMENT

The strength of character seen in New Mexicans, and in most other Americans, comes, I believe, from our love of personal freedom, our love of competition and our compassion towards those who truly cannot help themselves. From our love of personal freedom and competition comes the efficiency and vitality of the free enterprise system; from our compassion comes our need for social action.

Unfortunately, government by itself has shown to be unable to satisfy our compassionate needs without great waste and inefficiency. On a national scale this failure and its resulting financial deficits have encouraged inflation, unemployment and a loss of national productivity and pride.

Let us in New Mexico begin to marry the efficaciousness of our free enterprise system to the needs for social action. If we are imaginative, and if all will act with the state's best interests in mind, then we can begin to demonstrate for the Nation a whole new

concept of governmental management; one which combines all the basic strengths of the American character.

As a first step in this marriage, let us explore the possibilities of placing the retirement security program of government employees in personal, guaranteed investments within the private financial community of New Mexico. Such retirement programs not only will provide high returns on the invested dollar but will add much needed capital for others to invest in New Mexico's future economic growth. If New Mexico will lead the way, it may be possible to enact similar retirement security programs at the national level as long-term replacements of an unfair, inadequate and discriminatory social security system.

#### REGIONAL FEDERALISM

Many of the major problems facing our state today require regional cooperation if solutions are to be found. Problems of crime and illegal aliens plague the states bordering Mexico; questions related to energy, environment and water combine to inhibit growth in the four corners region; proper interstate and intrastate management of the waters of the Rio Grande concern the states of the watershed of that great river system; and the future of high plains agriculture is at stake in the states of the Llano Estacado.

New Mexico's interests are central to the solution of these regional problems. Let us take an increasingly energetic lead in establishing working regional relationships on an issue by issue basis. As regional solutions can be found, arbitrary action by Washington can be avoided.

I am working to increase regional cooperation at the congressional level. I hope you will do the same out here in the "Real World."

#### ENERGY AND ENVIRONMENTAL POLICY

There is much talk about energy and environmental policy these days, and rightly so. If our present inadequate national defense policies don't bring this republic to its knees, then our lack of a national energy policy will do just as well. Emergency Natural Gas Acts can hardly be called a "National Energy Policy".

But what is a "National Energy Policy"? It is not specific legislation; legislation is the means of implementing policy not policy in itself. A National Energy Policy is, I believe, a set of guidelines, which through general goals and specific objectives, take us from our present crisis of supply, through a transition period, into a time in the next century when the use of energy is balanced with its creation and with insignificant effects on our environment. Within such a policy there must be sufficient flexibility to allow use of the imagination, and initiative and economic perspective of the private sector and the states.

New Mexico also needs an Energy Policy. The formulation of a State Energy Plan, the establishment of state conservation objectives, the proper balance between internal use and export of energy, and the focusing of New Mexico's research and development community on New Mexico's problems can be done better by you than by Washington's legions of bureaucrats.

#### INDIAN POLICY

A major bottle neck in our capability to govern in New Mexico is the lack of clear definitions of the distribution of responsibilities between the state and tribal governments. This bottleneck is reflected in concerns about law enforcement, taxation, conduct of elections, health and welfare, economic development, gambling, liquor, and many other problems that affect both the state of New Mexico and the various tribes.

This definition of mutual responsibilities exists between the state and the city and county governments. Let me suggest that state and tribal officials begin to work directly toward the creation of governmental

interface agreements which can serve as the legal and practical basis for providing better government to all New Mexicans.

If we are successful in creating such agreements they will surely serve as a model for other states of the Union.

#### HEALTH CARE

New Mexico is already known for many innovative experiments in improving and reducing the costs of health care. These experiments range from one of the best malpractice legislative packages in the nation, to Presbyterian's consolidation of administrative functions of small town hospitals, to Phelps-Dodge's modern clinical communication system in southwestern New Mexico, to the PSRO review of medicare and Medicaid services.

All of these current experiments, and many highly efficient and successful health care institutions, point New Mexico's way toward even broader efficiencies and much lower costs for health care services. Unless we take these steps and set an example for other states, it may be impossible to avoid the national socialization of health care, the consequences of which cannot yet be calculated.

#### EDUCATION

Unfortunately, last in all the rhetoric and magic of economic stimulus packages is the grim fact that fully 50% of our unemployed are between the ages of 16 and 24 years. Not only are these young people unemployed, but they would be largely unemployable no matter what the economic activity of the country may be.

Many proposals exist aimed at creating training and job opportunities for the youthful unemployed. This type of action is clearly appropriate; however, we must also go to the central question which is "Why is there a steady supply of unemployable 16 year-olds entering the job market?"

The answer is, I believe, that our educational system has become so inefficient and so diluted with non-essential activity that all students, particularly those with learning disadvantages, are not being adequately prepared for adulthood.

The problems do not lie with inadequate funding, but rather with bureaucratic roadblocks in the way of using that funding efficiently. Worst of all, teachers have less and less time to teach the basic subjects that are essential to future voting and working.

I hope that you will join with me and the citizens of New Mexico in identifying the sources of educational inefficiency and in taking rapid and appropriate steps to eliminate those sources. The future of New Mexico is at stake; the future of the Nation is watching.

#### ROUTINE MORNING BUSINESS

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that there now be a period for the transaction of routine morning business for not to extend beyond 30 minutes, with statements limited therein to 10 minutes each.

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

#### RESCISSION OF CERTAIN BUDGET AUTHORITY

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the Senate proceed to the consideration of Calendar Order No. 27, H.R. 3347.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered. The bill will be stated by title.

The legislative clerk read as follows:

A bill (H.R. 3347) to rescind certain budget authority recommended in the message of

the President of September 22, 1976 (H. Doc. 94-620), transmitted pursuant to the Impoundment Control Act of 1974.

Mr. ROBERT C. BYRD. Mr. President, H.R. 3347 is the first budget rescission bill of the session. It is traveling separately because of an earlier March 1 deadline on action by Congress, and the committee recommends that it be passed without amendment.

This rescission involves \$47.5 million in contract authority for helium purchases under permanent authority of Public Law 87-122.

This is a routine rescission that is identical to the rescission we passed last year. The purchase contracts for which the contract authority is provided were terminated by the Interior Department in 1973. These contracts are the subject of pending suits before the U.S. Court of Claims. Presumably any future Federal payment would be handled under a claims and judgment appropriation.

Without this rescission the Interior Department would be mandated under the terms of the Impoundment Control Act of 1974 to make the contract authority—which is appropriation authority—immediately available for obligation. Therefore, I recommend the approval of the bill as reported so that we can complete congressional action on it before the impending deadline.

Mr. BELLMON. Mr. President, this rescission before us today is the necessary result of a confused and disjointed Government policy toward the storage of helium. This situation is an excellent example of governmental confusion and drift. A brief review of the events leading up to this proposed rescission will, in my opinion, substantiate these claims, and will hopefully alert those concerned with the need for developing and maintaining a consistent energy policy regardless of the commodity involved.

Many years ago, Mr. President, the Federal Government decided to implement a program for the storage of helium for future use. The Government, through the Department of Interior, entered into contracts with several private companies to carry out this work. These companies constructed plants and storage facilities to accomplish the task of separating the helium from natural gas as it was produced and storing the helium. Prior to this program, great amounts of helium were being wasted since the gas occurs in natural gas deposits. As the natural gas is burned as fuel, the helium goes into the atmosphere where it is recovered only at great cost. Current and future uses of helium dictate that the gas be stored and not wasted.

In 1973, under pressure from the Office of Management and Budget, the Secretary of Interior abruptly terminated these contracts. In the minds of many, including this Senator, the action was taken contrary to both the letter and the spirit of the law. The immediate result of this action by the Secretary of Interior was the filing of lawsuits by the various companies against the Government requiring performance of the Government under the terms and obligations of the contractual agreements. Since 1973, certain companies have continued the storage of helium. Others

have ceased operations pending judicial action. Much of the helium once saved by this program is now being wasted.

As is usually the case, judicial action has been slow. However, two decisions have been handed down, and in each case, the companies were awarded summary judgments based upon the Government's breach of contract. Several suits are still pending, but it seems safe to say that subsequent decisions will reach the same conclusion.

Mr. President, I realize that this rescission will in no way affect the claims of these companies. Any damages awarded will be satisfied through appropriations for claims and judgments. I am also aware that the \$47.5 million proposed in this rescission cannot be obligated until the U.S. Court of Claims settles the remaining lawsuits. Consequently, I am not opposing this particular rescission. In fact, this is nothing new, as we have approved similar rescissions in the past.

My concern is the manner in which this entire situation has been handled. This rescission allows the Government to renege on valid contracts and the equity implications contained therein. Failure to continue the helium program leads to the wasting of a valuable and irreplaceable resource. Whatever dollars are saved by this rescission in the present fiscal year will be required later should the courts decide in favor of the companies. If, in the future—as is likely—we reach the point where our only source of helium is the atmosphere, then the cost of production will easily exceed present production cost by at least five times. The fact is, Mr. President, no savings will be realized from this rescission.

Mr. President, it is my feeling that an overall energy policy should include a program of helium storage. This was once the position of the Interior Department and I would encourage the new administration to address this question. The manner in which these contracts were terminated, and the lengthy delay by the Court of Claims in settling the question has contributed to the confusion of our Nation's policy toward helium storage.

I intend to bring this matter to the attention of the Secretary of Interior to encourage some positive action with respect to the production and storage of helium.

In summary, Mr. President, while I will not oppose this rescission, I feel this action contributes further to the overall confusion. The helium storage question must be settled promptly either by the courts, by the new administration, or by the Congress.

Mr. President, I ask unanimous consent that a statement by the senior Senator from New Mexico (Mr. DOMENICI), together with material attached thereto, be printed in the RECORD.

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

#### STATEMENT BY MR. DOMENICI

I have long advocated the conservation of helium. Last year, I introduced S. Res. 253, a simple resolution which expressed the sense of the Senate that the President of the United States should direct the Secretary of the Interior to conserve the helium which is now being extracted from natural gas and then wasted into the atmosphere. This resolution was considered by the Senate Interior

Committee and reported to the full Senate. The Senate agreed to the resolution. I ask unanimous consent that an excerpt from the Senate report be printed in the Record following my remarks.

This report explains the economics of helium conservation in a succinct manner and I believe that if my colleagues read the report they will come to the same conclusion that I have reached. That is, it is unwise for this Nation to continue to allow helium to escape into the atmosphere.

The action to eliminate the annual budget authority for the \$47.5 million helium fund provides the opportunity for the Senate to consider this matter again.

Helium is a rare natural resource. Natural gas—primarily fuel gas—is the only known economic source of helium. The atmosphere contains an inexhaustible supply of helium, however, recovery from that source in large quantities is not attractive because of excessive cost and energy requirements.

I have just returned from New Mexico and during my time there I had an opportunity to visit Los Alamos Scientific Laboratories. I was very much impressed with the new phase of energy technologies that are being developed at LASL. They are involved in advanced energy-producing and distributing technologies. Large scale commercialization is anticipated to occur in the post-2000 year period. Among other things, these technologies will be dependent upon (a) adequate supply of the helium resource, and (2) the low cost of this resource. Recent assessments of helium demand and supply to the year 2000 by the Bureau of Mines, ERDA and NSF are in general agreement that adequate supplies exist for project usage during this time period. Consideration by ERDA for the post-2000 year suggests, however, that resource availability may have a serious impact upon introduction and implementation of these new energy technologies.

Helium is a unique, valuable and wasting natural resource which is essential to the vital interests of this country. Because of this I intend to pursue this matter and develop a program to reestablish a program to conserve this Nation's helium resources. This is a matter of immediate concern because as we develop our natural gas supplies, helium is being wasted at the rate of 2.4 billion cubic feet a year.

#### [Attachment]

##### I. PURPOSE

S. Res. 253 is designed to promote and encourage conservation by Federal Government of helium which is presently being extracted by private companies in the process of upgrading natural gas prior to distribution. This helium, which was formerly produced under contract to the Department of the Interior, is now being wasted to the atmosphere, representing a significant loss of a national resource which will become increasingly scarce and valuable.

##### II. BACKGROUND AND NEED

The Bureau of Mines has had the executive management of the Nation's helium program since 1925. The helium program has been carried out under legislation enacted in 1925, 1927, 1937 and 1960. Large and rapid growth in the Federal need for helium in the 1950's and the apparent decline of helium resources led to the passage of the Helium Act Amendments of 1960.

This Act added two new dimensions to the helium program: (1) it provided authority for the Secretary to enter into long-term contracts for the purchase of helium for conservation purposes; and (2) it fostered and encouraged individual enterprise in the development and distribution of supplies of helium.

In carrying out these new responsibilities, the Secretary, through the Bureau of Mines, entered into four long-term contracts for

purchasing helium for long-term storage. The Secretary also took other actions to encourage and promote development of private helium production and distribution, including setting the Government selling price of helium at about three to four times as high as its basic production costs. This not only helped to defray part of the cost of conserving helium, but also assured that commercial users would go to commercial sources for their helium supply.

In 1972, based on a study of future helium needs of Federal agencies, the Secretary terminated all purchases of helium, thereby precipitating several lengthy and ongoing lawsuits against the Government by suppliers. Meanwhile, the Bureau is storing its excess helium production at a rate of approximately 150 MMcf per year. The Government reportedly has about a 40-year supply of helium on hand at the present time. Private firms are also now storing their own helium under contract at the Government's Cliffside Field at the rate of 600 MMcf per year.

A report issued by the Energy Research and Development Administration on April 11, 1975, pursuant to Section 104(e)(3) of the Energy Reorganization Act of 1974, pointed out that the United States has already dissipated to the atmosphere 25-50 percent of its originally-held helium resources and called for establishment of a National Helium Policy. See Summary of Data and Conclusion of ERDA Report—Appendix I.

Most importantly, the ERDA report described three helium-dependent energy-related technologies which have been identified as probably technically and economically feasible by the year 2000. These are: super-conducting magnetic energy storage, super-conducting power transmission, and fusion reactors. All will require large amounts of helium.

The new ERDA policy would call for ensuring the existence of adequate amounts of non-atmospheric helium and postponing the need to extract helium from the atmosphere (an exorbitantly-expensive and energy-intensive process) in order to support helium-dependent energy technologies and other essential needs to the extent it can be done at a justifiable cost.

Although the Committee recognizes that the pending lawsuits (See Report of Secretary of Interior) have injected an element of uncertainty into the question of how the ERDA recommendations can be implemented, the Committee is nevertheless convinced that ways and means must be found to renegotiate the contracts and to reestablish the conservation program. It is short-sighted in the extreme to foreclose future development of technologies which are bound to determine to a large extent whether or not the United States can meet its future energy requirements. When the risks to national growth and security are assessed, the Committee can only conclude that further delay in removing whatever obstacles stand in the way of helium conservation is totally unjustifiable.

##### III. LEGISLATIVE HISTORY

Senate Resolution 253 was introduced by Senator Domenici on September 18, 1975.

##### IV. COMMITTEE RECOMMENDATIONS AND TABULATION OF VOTES

The Senate Committee on Interior and Insular Affairs, in open business session, on May 5, 1976, by unanimous vote of a quorum present recommends that the Senate pass S. Res. 253, if amended, as described herein.

##### V. COMMITTEE AMENDMENTS

The Committee amendment updates the reference to the preamble of the resolution to the amount of helium which was formerly piped to Government storage reservoirs from private contractors and is now being wasted.

##### VI. COST AND BUDGETARY CONSIDERATIONS

In accordance with Section 252(a) of the Legislative Reorganization Act of 1970, as amended, the Committee provides the following estimates of costs:

Approval of Senate Resolution 253 will not require any expenditure of Federal funds. Existing law authorizes all the expenditures necessary to comply with the resolution. If the President and the Secretary of the Interior did comply with the intent of the resolution, an increase of expenditures would be required. The following brief discussion of the economics of helium indicates the estimated costs involved.

##### ECONOMICS OF HELIUM CONSERVATION

At the present time, there is approximately two billion cubic feet per year of helium being extracted from natural gas and then being wasted to the atmosphere. In calculating the economic costs of storing this helium, there are three basic considerations:

1. The costs involved in the physical storage of the helium.
2. The costs involved in any purchase by the government and the subsequent storage.
3. The costs involved in recovering the helium from the atmosphere at some future time.

Even though the Committee resolution deals directly only with the first consideration, the other two are obviously pertinent.

The Bureau of Mines is presently charging 4¢ per thousand cubic feet (Mcf) for storage, plus 4¢ per Mcf per year and 22¢ per Mcf for redelivery. In other words, the costs of physical storage for the two billion cubic feet of helium presently being wasted would be:

$$4¢ (\text{Mcf} \times 2 \times 10^9 \text{ Mcf} = 10^6) \\ \text{or} \\ \$80,000 \text{ per year.}$$

To this should be added a storage charge of \$80,000 per year for each two billion cubic feet stored plus the \$440,000 costs involved in withdrawing the helium from storage.

If the government were to purchase the helium and then store it, then the costs would be:

$$\$12/\text{Mcf} \times 2 \times 10^9 \text{ Mcf} \\ \text{or} \\ \$24 \text{ million per year.}$$

If at some future time the helium is extracted from the atmosphere, the Energy Research and Development Administration estimates that the costs would be between \$3,000 and \$6,000 per Mcf. Therefore, for two billion cubic feet per year, extraction costs would be between \$6 billion and \$12 billion per year.

To compare total program costs, it can be assumed that the present natural gas reserves being used for helium extraction will be sufficient for ten more years of production. In other words, an additional 20 billion cubic feet of helium could be extracted and stored. The costs that would be incurred under the three different approaches toward this helium are:

1. Physically store the helium—\$9.6 million (including withdrawal).
2. Purchase and store the helium—\$240 million.
3. Extraction from air—Low: \$60 billion; high: \$120 billion.

##### VII. EXECUTIVE COMMUNICATIONS

While there has been no formal report received from the Executive Branch on S. Res. 253, an exchange of correspondence on the matter of the ERDA recommendations for a helium conservation program has occurred between Senator Lee Metcalf and the Director of the Bureau of Mines.

In addition, the committee has received the 1975 Annual Report of the Secretary of the Interior required by the Helium Act of 1960.

U.S. DEPARTMENT OF THE INTERIOR,  
BUREAU OF MINES,  
Washington, D.C., October 3, 1975.

HON. LEE METCALF,  
Chairman, Subcommittee on Minerals, Materials and Fuels, Committee on Interior and Insular Affairs, U.S. Senate, Washington, D.C.

DEAR SENATOR METCALF: Because of your continued interest in helium and the Government's helium program, we are pleased to inform you that the Bureau of Mines has recently entered into new contracts for the storage of privately-owned helium. As a result, privately-owned helium is being delivered into the Government's helium conservation system at a rate of about 600 million cubic feet a year.

We are currently negotiating with several other companies who have expressed a desire to enter into similar contracts, and we are hopeful that within the next several months the rate of helium delivery to storage will more than double.

Additional details regarding the new storage contracts are contained in the enclosed news release.

Sincerely yours,

THOMAS V. FALKIE,  
Director.

Enclosure.

DEPARTMENT OF THE INTERIOR NEWS RELEASE  
(For Release October 7, 1975)

BUREAU OF MINES CONTRACTS TO STORE  
PRIVATELY-OWNED HELIUM

The Interior Department's Bureau of Mines today announced that it has signed several contracts for the storage of privately-owned helium at the Government-owned Cliffside Gas Field near Amarillo, Texas.

The private helium will be stored with Federally-owned helium in the Bureau's helium conservation system, which consists of the partially depleted Cliffside field and a 425-mile pipeline connecting the field with helium sources in Texas, Oklahoma, and Kansas. Storage capacity of the system is in excess of current Government needs and can be used efficiently and economically to store helium for the companies involved.

Under the recently completed contracts, the Bureau of Mines has agreed to store helium for periods not exceeding twenty-five years. The companies will pay the Bureau of Mines a fee to transport and store the helium until it can be used or sold.

Helium is a minor constituent of natural gas and unless extracted and saved, the helium is wasted when the natural gas is used for fuel or other purposes. It is anticipated that the new storage contracts will enable the companies to conserve relatively large volumes of helium for future beneficial use.

The storage of helium is authorized under the Helium Act, approved September 13, 1960 (P.L. 86-777; 74 Stat. 918; 50 U.S.C. 167).

The helium storage contracts have been signed with Jack B. Kelley Co. of Amarillo, Tex.; Airco Industrial Gases Co. of Murray Hill, N.J.; and Kansas Refined Helium Co. of Wichita, Kans. Fees charged by the Bureau are 4 cents per thousand cubic feet (Mcf) for accepting helium for storage, 4 cents per Mcf for each year of storage, and 22 cents per Mcf for redelivery of stored helium to the owners.

OCTOBER 30, 1975.

DR. THOMAS V. FALKIE,  
Director, Bureau of Mines,  
Department of the Interior,  
Washington, D.C.

DEAR DR. FALKIE: I appreciate your letter of 3 October advising me of the initiation of new contracts entered into by the Bureau of Mines for the storage of privately-owned helium.

In reviewing a report of the Energy Research and Development Administration, "The Energy Related Applications of Helium",

as issued on 11 April, 1975, I am struck by several considerations which lead me to wonder whether there are other initiatives which the Bureau might be taking now or in the immediate future to guard against a crippling shortage of helium. Pointing out that the United States has already dissipated to the atmosphere 25-50% of its originally held helium resources (p. 89), the study calls for the establishment of a National Helium Policy. The objectives of such a policy would include ensuring the existence of adequate amounts of nonatmospheric helium to firmly establish new energy technologies requiring helium, and postponing the need to extract helium from the atmosphere to support helium-dependent energy technologies and other essential needs to the extent that it can be done at a justifiable cost (p. 103).

ERDA has listed among the elements of a National Helium Policy the following programs (p. 103):

1. Preserving the existing helium stockpile and non-depleting reserves as far into the future as is finally justified, encouraging industry and the Government to rely on privately produced helium extracted from helium-rich natural gas until that resource is exhausted.

2. Obtaining better estimates of the Nation's non-depleting helium reserves.

3. Establishing a management policy for the eventual release and pricing of government-owned helium.

4. Facilitating the storage of excess helium by private extractors some of whom are currently venting helium from conservation plants (an estimated total of at least 19 BCF of excess helium could be recovered in the next fifteen years).

5. Re-evaluating periodically the Nation's demand for helium.

In discussing the storage of Federally-produced helium, the study examines two cases and concludes: "Of these two limiting cases, storage appears uneconomic for only one of the four scenarios considered. It would therefore appear that the storage of the helium produced by the Government plants is probably more beneficial economically than its use to satisfy present Federal requirements."

I would appreciate your comments on the findings of the ERDA study, particularly as related to storing of helium produced from Federal lands.

Very truly yours,

LEE METCALF,  
Chairman, Subcommittee on Minerals,  
Materials and Fuels.

U.S. DEPARTMENT OF THE INTERIOR,  
BUREAU OF MINES,  
Washington, D.C., November 18, 1975.

HON. LEE METCALF,  
Chairman, Subcommittee on Minerals, Materials and Fuels, Committee on Interior and Insular Affairs, U.S. Senate, Washington, D.C.

DEAR SENATOR METCALF: This is in reply to your letter of October 30, 1975, regarding the Government's helium program, in which you requested comments on the findings of the ERDA study, particularly as related to storing of helium produced from Federal lands.

We believe it would be helpful to provide some background information on certain aspects of the Federal Government's helium program before commenting on ERDA's recommendations and your specific questions.

MANAGEMENT OF THE FEDERAL HELIUM PROGRAM BY THE DEPARTMENT OF THE INTERIOR

The Department of the Interior, Bureau of Mines, has had the executive management of the Nation's helium program since 1925. The helium program has been carried out under legislation enacted in 1925, 1927, 1937, and, most recently, 1960. Large and rapid growth in the Federal need for helium in the 1950's and the apparent decline of helium resources

led to the passage of the Helium Act Amendments of 1960. This Act added two new dimensions to the helium program: (1) It provided authority for the Secretary to enter into long-term contracts for the purchase of helium for conservation purposes; and (2) it fostered and encouraged individual enterprise in the development and distribution of supplies of helium. In carrying out these new responsibilities, the Secretary, through the Bureau of Mines, entered into four long-term contracts for purchasing helium for long-term storage. Shortly after passage of the Act, the Secretary also took other actions that encouraged and promoted the development of private helium production and distribution facilities. One of these actions was to set the Government selling price of helium at about 3 to 4 times as high as its basic production costs. This not only helped to defray part of the cost of conserving helium, but also assured that commercial users would go to commercial sources for their helium supply.

An additional feature of the Congressional concern for assuring a continuing supply of helium to meet Federal needs is the provision of the Mineral Lands Leasing Act of 1920, as amended, whereby the helium found on Federal land under a Federal oil and gas lease is reserved to the Government. 30 CFR 181 states: "The United States reserves the ownership of and the right to extract helium from all gas produced from lands leased or otherwise granted under the provisions of this chapter, under such rules and regulations as shall be prescribed by the Secretary of the Interior: *Provided further*, That in the extraction of helium from gas produced from such lands it shall be so extracted as to cause no substantial delay in the delivery of gas produced from the well to the purchaser thereof."

RECENT ACTIONS BY DEPARTMENT OF THE INTERIOR AND THE CONGRESS

Federal helium demand began a steady decline in 1967 which continued through fiscal year 1974. This substantial diminution in Federal helium needs raised the question of the need for the continued purchase and storage of helium. Concurrently, commercial helium production grew and sales to both domestic and foreign consumers increased. With the decline of Federal helium demand, there was an accompanying decline in Bureau of Mines sales and revenue. These factors served to emphasize the question of continued large-scale purchases of helium for storage for future Federal use. The Department of the Interior undertook a re-evaluation of the helium program and of the need to continue to purchase helium for storage. Similarly, Congress was apprised of the situation and also questioned the need to purchase additional helium for storage.

A total re-evaluation of the future helium needs of Federal agencies was undertaken by Interior, and an Environmental Statement on Termination of the Helium Purchase Contracts FES 72-41, was issued November 13, 1972. Based on this evaluation, the Secretary determined that it was no longer necessary to continue the purchase of helium for storage for future Federal needs. The Secretary found that there had been a substantial diminution in Federal helium demand and that significant new helium discoveries had been made. Accordingly, pursuant to the terms of the helium purchase contracts, the Secretary terminated the purchase of crude helium. One firm sued in 1970 for breach of contract by virtue of the Government's failure to make payments for helium delivered. Two other firms filed suit in the Court of Claims during 1975, also contending that their contracts were breached. The fourth firm has taken no action as of this date. Crude helium accepted under these contracts was discontinued in late 1973. Interior has about a 40-year supply of helium on hand at the present time.

ESTABLISHMENT OF ERDA AND THE REQUIREMENT  
TO STUDY THE POTENTIAL ENERGY-RELATED AP-  
PLICATIONS OF HELIUM

The Energy Research and Development Administration was established under "Energy Reorganization Act of 1974." Section 104(e)(3) of this Act provided for a report on the energy-related applications of helium and resulted in a report by ERDA dated April 1975 entitled "The Energy Related Applications of Helium." While it touches on other uses of helium, the report is almost exclusively related to the subject of electrical power generation by proposed new nuclear methods and use of superconductivity. Another feature of the report is that it addressed itself to helium needs for the period beyond the year 2000 to 2030 and, admittedly, acknowledges that such long-term estimates have many features that are speculations.

RESPONSES TO RECOMMENDATIONS CONTAINED  
IN ERDA REPORT

The following comments are numbered in the same order as the ERDA's report beginning on page xv.

1. *Policy Toward Private Helium Storage.*—The ERDA report recommends that the Federal Government should facilitate the storage of privately-owned helium in the Government-owned Cliffside Field. As indicated by our October 3 letter to you, the Bureau of Mines has taken action to facilitate the storage of privately-owned helium. During the last three months the Bureau has entered into five new contracts for the storage of helium for private firms. In addition the Bureau has storage contracts with three other firms which have been in effect for a number of years. These older contracts have certain features which are not conducive to large-volume helium storage, and the Bureau is in the process of replacing one of them with a new contract and is willing to do the same with the others.

As a result of these new storage contracts, private firms are now storing helium at a rate of about 600 million cubic feet a year. It appears that the rate of storage should increase significantly during the next few months.

In addition to the storage contracts per se, the Bureau has agreed to purify the owners' stored helium upon redelivery. This facilitates storage by firms who are not equipped to purify helium themselves and thus leads to the saving of helium that might otherwise be wasted.

Accordingly, we believe that our policy toward private helium storage is a successful one as evidenced by its wide acceptance by the private helium industry.

We want to point out also that the storage contracts and other agreements related to the storage of private helium require the companies to pay fees which assure that the Bureau recovers all related costs.

2. *Policy Toward Use of Publicly Owned Helium.*—The Department of the Interior has so managed the Federal helium program that four private helium production plants, currently in operation, furnish the major quantities of helium for domestic and foreign markets. In February 1975, a private company began operating a new helium plant in New Mexico. For all practical purposes, the entire world's supply of helium was produced by American companies from United States resources. Small plants exist in the Netherlands, France, and Canada. A new plant in Poland is reported to be nearing completion, and its helium production output is estimated to be about half the total European market. Some of the helium production will likely be reserved for other eastern European countries. The total impact of this new source of helium cannot be evaluated, but it is thought to be not very large. Policies of the Department of the Interior have, in less than 15 years, resulted in a large private American helium industry that supplies helium world-wide

Because the Federal Government's helium program is aimed primarily at filling needs of Federal agencies, there is no competition between private helium producers and Interior. In fact, Interior has set its selling price of helium so that it is approximately twice the price of helium from commercial sources. This was done in accordance with Congressional policy to defray the costs for purchasing and maintaining a supply of helium to meet future Federal needs. Current Federal helium policy, as promulgated by the Secretary, encourages private enterprise to furnish the commercial market. Private production and sales of helium have increased from near 0 in 1961 to about 500 million cubic feet in 1974. About 75 percent of the domestic helium market is supplied by private producers. Accordingly, the current policy of Interior is accomplishing recommendation 2. No change in this policy is anticipated.

3. *Administrative Responsibility for the Federal Helium Program.*—The ERDA report recommends that the Department of the Interior should continue to administer the Federal helium program. This recommendation is in keeping with a long, successful tradition of Interior wherein it started a farsighted conservation effort. It is also in keeping with the Helium Act Amendments of 1960 and is a reflection of the Department's ability to carry out the policies of the Congress as they relate to conservation, production, and exploitation of helium. The Secretary has also carried out the intent of the Congress to encourage individual enterprise in the development and distribution of supplies of helium and, at the same time, provide within economic limits, through the administration of the Act, sustained supplies of helium which, together with supplies available or expected to become available otherwise, will be sufficient to provide for essential Government activities.

4. *Policy with Respect to Improving Supply and Demand Estimates of Helium.*—

4(a). *Supply Estimates.*—The Federal Government, through the Bureau of Mines, has conducted a series of investigations, studies, and evaluations on the United States resources of helium, dating back to 1920. The Bureau has been an active, and almost the sole, contributor to information in this field. The Bureau has accomplished this work in the past for internal management purposes and has a competent staff to direct the evaluation of helium resources. The following work functions of the Bureau of Mines, Division of Helium, are for the purpose of defining the magnitude of the Nation's helium resources. (Much of this work will be contracted out.)

(1) Magnetometer and seismograph surveys to locate and define the geographic limits and obtain reservoir data regarding potential helium-bearing gas structures on Federal lands.

(2) Exploratory drilling to further define known helium-bearing gas structures on Federal lands.

(3) Reservoir engineering studies to determine the amount of helium contained in natural gas reservoirs on Federal and non-Federal lands.

(4) Study and develop processing equipment for separating helium from gases containing low percentages of helium, high percentages of hydrogen sulfide and carbon dioxide and/or having other characteristics not normally processed in helium plants because of unusual composition or low heating value.

4(b). *Demand Estimates.*—ERDA has recommended that the Bureau undertake periodic comprehensive helium supply and demand analyses in support of program management. The Bureau has been making such analyses for many, many years and will continue to do so. These analyses were the basis for construction of four new helium plants during World War II and for the Helium Act of 1960 which permitted the conservation of helium for future use.

The Bureau has recently entered into a contract with the Midwest Research Insti-

tute for a comprehensive study of current helium usage and projections of helium usage to the year 2000. This study is scheduled to be completed in the spring of 1976. Similar studies will be made in the future as older studies become outdated.

In summary, with regard to the findings of the ERDA study, the Department of the Interior, through the Bureau of Mines, is accomplishing the recommendations made by ERDA concerning the Government's helium program. New contracts for helium storage for private firms have been made and others are in process. Private American industry is supplying at least 75 percent of the domestic helium market and all of the export market. The pricing of Government-owned helium is set at nearly double the price of privately produced helium. The Bureau has a vigorous program for improving estimates of the helium resources of the Nation and of other countries. It also has a plan for periodic comprehensive studies of future helium supply and demand.

With regard to your request for comments related to storing helium produced from Federal lands, our studies show that currently there is not a large amount of helium being produced from such lands. However, there are large reserves of helium on Federal lands in the Western States of Arizona, Colorado, Montana, Utah, and Wyoming. Most of the helium resources of these States, however, happen to be associated with natural gases having little or no value as fuel gas. Consequently, the gas is not being produced, and the helium is not being wasted. It is estimated that as of January 1, 1975, the helium reserves in the non-wasting gasfields were: Proved—12.0 billion cubic feet (Bcf); Probable—40.6 Bcf; Total 52.6 Bcf. Since the helium on Federal lands is reserved to the Government, most of the 52.6 Bcf will be available for recovery and storage if and when the natural gas is produced for other purposes. When this is added to the 42 Bcf in the Bureau's Cliffside storage field at Amarillo, Texas, it provides a probable supply of nearly 95 Bcf. By comparison, helium-using Federal agencies have estimated their needs to be only 6 Bcf during the next 25 years.

Attached are two photographs of Bureau of Mines briefing charts that may be of interest to you. One shows the helium resources of the United States as of 1975 and the other, helium sales for the years 1921-1975.

If you desire additional information, please let us know.

Sincerely yours,

THOMAS V. FALKIE, Director.

Enclosures.

U.S. SENATE,  
COMMITTEE ON INTERIOR AND  
INSULAR AFFAIRS.

Washington, D.C., December 3, 1975.

Dr. THOMAS V. FALKIE,  
Director, Bureau of Mines, Department of  
the Interior, Washington, D.C.

DEAR DR. FALKIE: Thank you for your 18 November letter regarding the Federal Government's helium program. I am gratified to learn that the Bureau of Mines has implemented some of the recommendations made by ERDA in its study entitled "The Energy Related Applications of Helium". The stimulation of private helium production, helium storage for private firms and similar efforts are all to the good as far as alleviating a possible shortage of helium is concerned.

However, there is a broader issue raised by ERDA. It concerns a longer time frame than you have appeared to allow, particularly with regard to the study contract with Midwest Research Institute, which you describe as covering helium usage to the year 2000. ERDA states that beginning in the year 2000 three helium-dependent energy-related technologies have been identified, "assuming that their technical and economic feasibility will have been demonstrated prior to the year 2000 and that their introduction into the economy begins shortly thereafter." These

technologies are superconducting power transmission, superconducting magnetic energy storage, and fusion reactors.

How do these long-range projections fit into your planning for helium? For example, would you recommend retention of the Federal helium stockpile in 1990, which is an option recommended by ERDA? At what point would helium production from the non-wasting gas fields which you mention be appropriate? Do your calculations support ERDA's estimate that "by 1990 the volume flow of natural gas will have decreased to the point that supply will no longer exceed demand"? If so, would retention of the Federal helium stockpile, together with storage of private helium be sufficient to carry us into the period when new technologies can be developed for extraction of helium from the atmosphere on a large scale?

These are difficult questions, I realize, with answers depending upon complex and perhaps imponderable factors. However, if the Bureau's overall helium program is aimed at meeting future national needs, a longer perspective should be taken than what is indicated in your letter. I would appreciate having your current thinking on this issue.

Very truly yours,

LEE METCALF,

Chairman, Subcommittee on Minerals,  
Materials and Fuels.

U.S. DEPARTMENT OF THE INTERIOR,  
BUREAU OF MINES,  
Washington, D.C., December 23, 1975.

HON. LEE METCALF,  
Chairman, Subcommittee on Minerals,  
Materials and Fuels, Committee on Interior  
and Insular Affairs, U.S. Senate, Wash-  
ington, D.C.

DEAR SENATOR METCALF: This is in reply to your letter of December 3, 1975, concerning the Bureau's helium program.

With regard to your question about the time frame of our current study of future helium usage, we agree that projections should extend beyond the year 2000. However, we want our contractor, Midwest Research Institute, to focus its attention on current usage and anticipated usage during the next 25 years. Reliable data for that period will then enable the Bureau of Mines, and others, to estimate need for helium well beyond the year 2000. Moreover, as indicated by our letter of November 18, we will conduct helium usage studies, in the future, probably at 5-year intervals, or more frequently should it appear necessary. The study by Midwest Research Institute is progressing as scheduled and should be completed in the spring of 1976. We will provide you with the results of this when it is completed.

Long-range projections of helium needs for emerging technologies such as superconducting power transmission, superconducting magnetic energy storage, nuclear power generation, and other such usage will, of course, be taken into account in our planning. Midwest Research Institute will project the need for helium for all current uses as well as for anticipated future uses. When these projections are available, Midwest Research Institute and the Bureau of Mines will be in a better position to answer the questions raised in your letter; however, our current thinking is outlined below.

With regard to the Federal helium in underground storage at Cliffside field, we would strongly recommend its retention, not only in 1990, but beyond that time until it is needed to meet demand. The helium storage reservoir currently contains about 42 billion cubic feet (Bcf) of helium. The helium-using Federal agencies have recently supplied the Bureau with projections showing that their total needs for the next 25 years will amount to about 6 Bcf. The Bureau will extract at least 3 Bcf of helium at its Keyes (Oklahoma) plant during the next ten years or so before the helium-bearing gas supply is exhausted.

Consequently, assuming the Bureau does not produce helium elsewhere, 39 Bcf of helium will remain in Cliffside field at the turn of the century. As pointed out in our previous letter, there is a vigorous private helium industry, and we do not foresee the need to use Federal helium to supply commercial users to any great extent during that period. We now have eight contracts for the storage of privately-owned helium in Cliffside field and are negotiating another. Seven of these contracts have terms of 25 years. There are a number of private helium plants in operation, and we believe that private industry will build additional plants in the future as they are needed. There is little likelihood, therefore, that more than 3 or 4 Bcf of stored helium will be withdrawn from Cliffside during the next 25 years.

Your question as to the appropriate time to produce helium from non-wasting gas fields is indeed difficult to answer. There are many factors to consider when determining whether it would be in the Government's interest to produce helium from a particular gas field, and a different set of factors apply to each field. These non-wasting gas fields in the Western States are generally on Federal lands under lease to oil and gas companies, and, as you know, the ownership of, and the right to extract helium gas produced on Federal leases, is reserved to the Government. However, the Government has no control over the production of the gas containing the helium. The gas is not being produced at present because it is poor quality and cannot be used for fuel unless it is upgraded by processing to remove inert constituents such as nitrogen and carbon dioxide or, in some cases, poisonous hydrogen sulfide. At current fuel-gas prices, it is not economically feasible for the companies to process the gas. However, at some point in the future, if natural gas prices continue to rise, it will be profitable to produce and upgrade the gas to fuel quality. When that time comes, the Government will have to determine whether or not the cost of extracting the helium is justifiable in light of the then current projections of the future need for helium.

We believe estimates by the Energy Research and Development Administration as to the relationship between future natural gas production and demand are reasonable. However, even though demand exceeds production in the 1990's, there will still be large volumes of natural gas being produced. As indicated by estimates in the ERDA report, several hundred trillion cubic feet of natural gas remain to be discovered in the United States. It is highly unlikely that it will all be discovered, let alone developed and produced to depletion, within the next 50-75 years. Consequently, since all natural gas contains helium in far greater percentages than the atmosphere, the need to produce large quantities of helium from the air lies far in the future. We believe, therefore, that the helium stored in Cliffside, future production and storage of helium at existing private and Bureau plants, non-wasting helium resources, and future discoveries of natural gas will be sufficient to carry us far into the next century.

The Bureau of Mines is indeed considering the Nation's long-term helium needs. However, to avoid any misunderstanding, we want to point out that the Helium Act does not provide for the Government to purchase and store helium to meet the requirements of the Nation as a whole, but only for Federal agencies. This does not mean that the Bureau is overlooking long-term national needs from the standpoint of supply and demand studies.

If you desire additional information, please let us know.

Sincerely yours,

THOMAS V. FALKIE, Director.

## REPORT TO THE CONGRESS ON MATTERS CONTAINED IN THE HELIUM ACT

### 1. NATURE AND SCOPE OF REPORT

This report is submitted on conformance with Section 16 of the Helium Act of 1960 (Public Law 86-777) to advise the Congress of the current status of the Government's helium program. This report contains financial, statistical, and operating information about the helium program for the fiscal year ending June 30, 1975.

### 2. GENERAL STATUS OF THE GOVERNMENT'S HELIUM PROGRAM

The Federal helium program, as conducted by the Bureau of Mines under 50 U.S.C. 167, is designed to provide for the current and foreseeable future requirements for helium for essential Government activities. The program involves the production, conservation, sale, and distribution of helium and includes the following functions:

(a) Acquisition, construction, operation, and management of helium plants, gas fields, helium storage fields, pipelines, and fleets of helium tank cars and semi-trailers.

(b) Searching for new sources of helium-bearing natural gas and negotiating contracts for supplies of helium-bearing gas.

(c) Establishing reserves of helium.

(d) Experimentation and research to discover helium supplies and to improve methods of helium production, purification, transportation, liquefaction, storage, and utilization.

These functions are carried out by the Bureau of Mines through the Division of Helium, Washington, D.C. A field manager is located at Amarillo, Texas. During 1975, the Bureau operated two processing plants, a shipping terminal, storage field facilities, and related pipelines all located in Texas, Oklahoma, and Kansas.

The emphasis of the Bureau's helium program is on conservation, production, and distribution of helium for essential Government needs. Historically the Bureau of Mines has managed the helium program to provide helium users with needed quantities and qualities of helium. Helium is used for shielded arc welding, breathing mixtures for deep sea diving and medical purposes, pressurizing and purging in the space program, controlled atmosphere for growing crystals for transistors, heat transfer medium in nuclear power generators, lifting gas, leak detection, fundamental research, cryogenic refrigerators, chromatography, and in the developing fields of superconductivity.

Sec. 6(a) of the Helium Act provides: "The Department of Defense, the Atomic Energy Commission, and other agencies of the Federal Government, to the extent that supplies are readily available, shall purchase all major requirements of helium from the Secretary" (of the Interior). Helium has a wide variety of uses in Federally funded programs, and the helium for these uses is available from the Bureau of Mines.

As of June 30, 1975, the Government had \$534 million invested in the helium program. Of this amount, \$412 million is owed to the U.S. Treasury, leaving a net investment of \$122 million.

Further details concerning program activities, litigation, and financing are presented in more detail in the following sections.

### 3. HELIUM CONSERVATION

At the present time, the Government is not purchasing any helium for storage as authorized by the Helium Act. However, the Bureau is storing its excess helium production at a rate of approximately 150 million cubic feet (MMcf) per year.

As of June 30, 1975, 38,352 MMcf<sup>1</sup> of helium was in storage in the Cliffside Gas Fields

<sup>1</sup> All volumes in this report are at 14.7 psia and 70° F.

near Amarillo, Texas. Of this amount, 29,977 MMcf is Government-owned helium, 954 MMcf is stored for others, and 7,421 MMcf was accepted under a court-ordered injunction.

The Cliffside Field helium storage reservoir actually contains about 42,100 MMcf of helium. In addition to the 38,352 MMcf in storage, there is approximately 3,748 MMcf of helium contained in the native natural gas remaining in the reservoir.

As part of its overall responsibility in the area of helium conservation and utilization, the Bureau continues to maintain the Cliffside storage reservoir, associated pipelines, and monitoring services. It continues to conduct surveys of the United States and foreign countries to discover new sources of helium, and appraises and evaluates current and potential reserves as they relate to program needs.

During the fiscal year, 10,778 thousand cubic feet (Mcf) of helium was stored for others under private storage contracts and 88,302 Mcf was redelivered from storage to the owners.<sup>2</sup>

#### 4. HELIUM SUPPLY AND DEMAND

Natural gas—primarily fuel gas—is the only known economic source of helium. The atmosphere contains an inexhaustible supply of helium since the helium content remains constant at about 5 parts per million. However, although the atmosphere is an assured supply of helium, its recovery from that source in large quantities is, at present, not attractive because of excessive cost and energy requirements.

As of January 1, 1975, the Bureau of Mines estimated that approximately 111 billion cubic feet (Bcf) of helium was contained in proved reserves of "helium rich" natural gas (containing at least 0.3 percent helium). The Bureau has further estimated proved shut-in reserves of "helium rich" gas at about 13 Bcf of helium. Probable shut-in reserves in helium rich natural gas have been estimated at about 41.7 Bcf. Along with the 38.4 Bcf of helium in storage in the Cliffside Field, it is estimated that about 3.7 Bcf of helium is contained in the Government-owned native gas in that field. Thus, with 3.5 Bcf of helium expected to be recovered in its Keyes Helium Plant under an exclusive "life of the field" gas supply agreement, the Government has an assured supply of about 45.6 Bcf of helium, plus a probable additional volume of 41.7 Bcf.

In 1975, the six major helium-using agencies (NASA, DOD, ERDA, NOAA (Weather Bureau), National Bureau of Standards, National Science Foundation) submitted estimates of their respective helium needs through the year 2000. Based on those estimates, the future helium requirements of those agencies for the period 1975-2000 were approximately 6.2 Bcf. Thus, the Government's supply of 45.6 Bcf of helium would be over seven times as much as would be necessary to meet the needs of essential Government activities through the year 2000.

The total market for United States helium increased in 1975 over 1974. The Bureau of Mines supplied about 30 percent of the domestic helium market and private industry shows the total market for United States helium from 1967 to 1975, including exports. In 1975 exports were 135 MMcf and were supplied by private industry.

TABLE 1.—Market demand for United States helium, MMcf

1967	922
1968	929
1969	840
1970	675
1971	602
1972	580
1973 (revised)	640

<sup>2</sup> As of September 12, 1975, the Bureau of Mines had contracted with three new companies for the storage of privately-owned helium.

1974 (revised)	665
1975	700

#### 5. HELIUM PRODUCTION

The Keyes Helium Plant was operated to provide pure helium for all essential Federal requirements. Pure helium production of 336 MMcf was 9 percent higher than in 1974 and was adequate to meet the 172 MMcf demand. The remainder was injected into Cliffside Gas Field to meet near-term future helium needs. Some of this injected helium was withdrawn during the year to meet demand when production was low due to low gas supply. Helium production was up because of an increase in the market demand for natural gas from Keyes field.

The Excell plant operates to process conservation crude helium and native gas from the Cliffside Gas Field for operation of the underground storage at Cliffside Field.

Table 2 shows the annual Bureau production figures for fiscal years 1967 to 1975.

TABLE 2.—Bureau of Mines helium production, MMcf

1967	769
1968	713
1969	673
1970	645
1971	666
1972	593
1973	306
1974	308
1975	336

#### 6. HELIUM DISTRIBUTION

Helium shipments to Federal agencies and a few commercial customers totaled 172 MMcf in 1975, which is 2.3 percent more than 1974. Table 3 shows total Bureau sales for FY 1967 through FY 1975. It also breaks down Bureau sales by consumer-Federal agency or commercial market.

TABLE 3.—Bureau Helium Sales, MMcf<sup>1</sup>

Fiscal year	Commercial	Federal market agencies	Total
1967	165	554	719
1968	38	496	534
1969	11	439	450
1970	9	264	273
1971	4	189	193
1972	6	160	166
1973	9	170	179
1974	7	161	168
1975	8	164	172

<sup>1</sup> Includes Bureau of Mines helium sold through eligible (30 CFR Part 602) private helium distributors.

About 232 railway tank cars, 730 automotive semitrailers, and 73,547 cylinders were used to ship helium to Bureau customers during FY 1975.

#### 7. ENGINEERING STUDIES AND EVALUATIONS

Engineering studies provide the basis for long-range management planning for reductions in production costs and for increased efficiency in production, distribution, and conservation of helium.

Major activities for 1975 included (1) reservoir studies of 35 gasfields as a part of the evaluation for the helium resources in the United States (2) equipment modifications at the Excell plant for facilities needed in storage and withdrawal operations, (3) development of special analytical procedures for the analysis of helium in air and soil-gas, (4) continued improvement of energy conservation measures which resulted in a savings of 34 percent over FY-73 in non-process energy usage, and (5) reservoir and production data studies in the Hugoton and Brown-Basset gas fields for FEA.

Two reports, "Helium Resources of the United States, 1975" and "Proved and Potential Supply of Natural Gas in the United States from 1973 through 2020," were completed. In addition, an I.C. "Analyses of Natural Gases, 1974" containing the analyses of 352 gas samples was approved for publication.

A detailed well testing program was conducted at the Bush Dome Helium Storage Reservoir to monitor the movement and configuration of the 38.4 Bcf of conservation helium stored in the reservoir. Pressure and gas analysis data obtained from the individual Bush Dome wells are used to aid in determining how the wells are to be operated to keep the helium in the smallest possible area.

#### 8. LITIGATION

(a) *Northern Natural Gas Company, et al. v. Ralph Grounds, et al.* (No. KC-1969 in the United States District Court for the District of Kansas). This litigation involves interpleader actions brought by helium extraction companies and their parent pipe-line companies (helex companies) against the holders of mineral rights in certain lands (landowners) in Kansas, Oklahoma, and Texas and their lessee-producers. The purpose of the action is to determine title to the helium in natural gas produced by lessee-producers from the lands of the landowners, which helium is extracted from the gas by the helex companies and thereafter sold to the United States. The landowners and lessee-producers brought certain cross-claims and counterclaims.

Two actions were brought by the landowners against the United States for the reasonable value of helium allegedly owned by the landowners. The first action claimed conversion by the United States of helium allegedly owned by the landowners. The second action alleged that the United States had acquired the landowners' helium by the exercise of its power of eminent domain.

On April 15, 1969, the United States District Court entered judgment for the helex companies and denied the cross-claims and counterclaims of the landowners and lessee-producers. The court entered judgment for the United States in the two actions brought by the landowners. On March 2, 1971, on appeal, the U.S. Court of Appeals, Tenth Circuit, reversed the judgment of the district court as to the helex companies and affirmed as to the United States.

The Government is interested in the outcome of the litigation because the four helium purchase contracts it has entered into contain provisions under which the United States may be required to indemnify the helium extraction companies if the latter are required to pay the lessee-producers more than about \$3 per thousand cubic feet of helium. On July 17, 1972, the district court granted the motion of the United States to intervene as a plaintiff in the litigation.

A trial was held in March 1974 to determine the value of helium in natural gas ("commingled helium") prior to being extracted from the gas and sold to the United States. On November 12, 1974, the court ruled that the value of "commingled helium" ranged from 61¢ per Mcf in 1962 to 70¢ per Mcf in 1972.

This ruling has been appealed to the U.S. Court of Appeals, Tenth Circuit.

(NOTE.—The case described above involves the helium extraction companies whose plants are situated in the State of Kansas. They are Cities Service Helex, Inc., National Helium Corporation, and Northern Helex Company. The following four lawsuits concern the other helium extraction company, Phillips Petroleum Company, whose two helium extraction plants are situated in the State of Texas. Phillips' lawsuits are similar to the Kansas case involving the other three helium extraction companies, i.e., determination of the reasonable value of helium in natural gas delivered to the helium extraction plants.)

(b) *Ashland Oil, Inc. v. Phillips Petroleum Company* (No. 67-C-238 in the U.S. District Court for the Northern District of Oklahoma). The United States has been permitted to intervene in the case. The purpose of the lawsuit is to determine the reasonable value of helium contained in natural gas sold by Ashland to Phillips. The court found that the

reasonable value of the helium prior to extraction and sale to the United States ranged from \$12 to \$17 per Mcf. This decision was appealed to the United States Court of Appeals, Tenth Circuit. The district court's decision was sustained. Defendant has petitioned the court of appeals for a rehearing.

The decision in this case is important because the contract for the sale of helium to the United States by Phillips contains a provision which may require the United States to indemnify Phillips for payments to third parties for helium value in excess of about \$3 per Mcf. If the value of \$12 to \$17 per Mcf as determined in this case is finally upheld it may result in claims against the United States amounting to \$9 to \$14 per Mcf in addition to the average of about \$12 per Mcf the United States has already paid for helium.

(c) *Amoco Production Company v. Phillips Petroleum Company* (No. 44,864, 108th Judicial District Court, Potter County, Texas). The United States has been permitted to intervene in a suit filed to determine the reasonable value of helium contained in natural gas sold by Amoco to Phillips. The Government is interested in the outcome of the litigation for the reasons stated in (b) above.

(d) *Cities Service Oil Company v. Phillips Petroleum Company* (No. C-75-818, District Court of Tulsa County, State of Oklahoma). This case involves the reasonable value of helium contained in natural gas sold to Phillips by Cities Service. The case is of interest to the United States for reasons stated in (b) above.

(e) *Texaco, Inc. v. Phillips Petroleum Company* (No. C-75-90, District Court of Tulsa County, State of Oklahoma) See comments on (b) above.

(f) *Northern Helix Company v. The United States* (No. 454-70 in the United States Court of Claims). On December 24, 1970, Northern Helix Company sued the United States to recover damages for breach by the United States of Contract No. 14-09-0060-2421, dated August 15, 1961, for the Sale and Purchase of a Helium-Gas Mixture. The plaintiff alleged that the damages which have been or will be caused by the Government's material breach of contract will aggregate \$92,304,000. A decision by the Court of Claims held that the Government had materially breached the contract by failing to make payments on time, therefore justifying the contractor to regard the contract at an end.

Helium was stored for Northern for a fee under a short-term contract which lapsed September 28, 1972. Since that date, Northern has vented its helium production to the atmosphere except for some volumes sold and shipped in truck trailers to private industry helium plants for purification and resale.

The parties presented their cases on the issue of damages, if any, due the company in March and April 1973. On December 3, 1974, the trial judge held that the company is entitled to \$78 million in damages. This is subject to review by the full Court of Claims and oral argument was held in June 1975.

(g) *Cities Service Helix, Inc. v. The United States* (No. 138-75, U. S. Court of Claims). On April 24, 1975, Cities Service Helix, Inc., sued the United States to recover damages for breach by the United States of Contract No. 14-09-0060-2424, dated August 22, 1961, for the Sale and Purchase of a Helium-Gas Mixture. The company alleges that the damages which have been or will be caused by the Government's breach of the contract will aggregate \$101,557,041.51.

(h) *National Helium Corporation v. The United States* (No. 158-75 in the U. S. Court of Claims). On May 12, 1975, National Helium Corporation sued for breach by the United States of Contract No. 14-09-0060-2429, dated October 13, 1961, for the Sale and Purchase

of a Helium-Gas Mixture. The company alleges that the damages which have been or will be caused by the Government's breach of the contract will aggregate \$171 million, less any operational cost savings to it by reason of the Government's closing of the valve and shut-in of the pipeline and the resulting cessation of helium extraction operations.

(NOTE.—Background information leading up to cases (g) and (h) is as follows: During the years between 1947 and 1959, the use of helium by Federal agencies showed a steady increase. Direct sales to the agencies grew from 30 MMcf in FY 1948 to 247 MMcf in FY 1958. In the succeeding fiscal year, such sales amounted to 277 MMcf. In July 1959, a legislative proposal was submitted to the Congress looking to a conservation program. The Helium Act Amendments of 1960 became law in September 1960, and four helium purchase contracts were entered into during the last six months of calendar year 1961.)

The conservation program operated as anticipated until about seven years ago when the total helium demand decreased as shown in Table 1, page 3.

This drop in demand for helium occurred with the completion of several developmental phases in the space program, the overall slowdown in the national economy, and particularly because of the cut-back in space efforts and funding. Demand for Government helium were further complicated by the loss of commercial markets to private helium producers.

On January 26, 1971, a determination was made by the Under Secretary of the Interior that continuation of the helium purchase contracts was unnecessary to achieve the objectives of the Helium Act to provide, within economic limits, "a sustained supply of helium, which, together with supplies available or expected to become available otherwise, will be sufficient to provide for essential Government activities." The actions taken by the Under Secretary in January of 1971, to terminate the contracts, did not become effective because of the issuance of an injunction resting on the procedural requirements of the National Environmental Policy Act.

Pursuant to that ruling, the Bureau of Mines prepared and disseminated a final environmental statement. Thereafter, the Government moved to dissolve the injunction. On January 12, 1973, the court issued an oral ruling denying the motion. However, the court interpreted the injunction as allowing the Secretary to proceed anew to determine whether or not to terminate the three conservation contracts. The Secretary of the Interior issued new termination notices on February 2, 1973, to be effective April 4, 1973. The Government again moved to dissolve the injunction. On March 14, 1973, the district court denied the motion holding, *inter alia*, that the Bureau's impact statement was inadequate. The Government appealed, and, on October 19, 1973, the Court of Appeals for the Tenth Circuit reversed the judgment of the district court and remanded the case with directions to dismiss the action. On November 12, 1973, the Government ceased accepting helium for purchase from the three companies. On May 13, 1974, the Supreme Court declined to review the decision of the court of appeals.

In the latter part of 1974, Interior began negotiations with each of the three companies to settle the issues resulting from termination of the contracts. However, shortly after negotiations were initiated, decisions in two helium lawsuits had extremely adverse effects on the possibility of reaching a settlement. Negotiations were discontinued and two of the companies, Cities Service Helix, Inc. and National Helium Corporation, filed

suit. The other company, Phillips Petroleum Company, has taken no action to date.

(1) *Airco, Inc. v. Morton, et al* (No 75-C-904 in the U.S. District Court for the Southern District of New York) This lawsuit concerns the reporting to the Bureau of Mines by private helium distributors their sales of helium to Federal agencies. The Helium Act requires Federal agencies to purchase all major requirements of helium from the Secretary. In this connection the Secretary issued regulations whereby private helium distributors become eligible to sell helium to Federal agencies so long as they buy an equivalent volume from the Bureau. These regulations require the distributors to report their Federal sales to the Bureau as well as their purchases of Bureau of Mines helium. The reports are made each six months and, if the sales to Federal agencies exceed purchases of Bureau helium, they are required to make up the difference.

Airco was found to be out of balance during the first six months of 1974 because it interpreted the regulations as not requiring the reporting of either sales of liquid helium or sales to Federal contractors whose purchase orders specify delivery of Bureau of Mines helium. The company was informed that its interpretation of the regulations was incorrect and was directed to amend its reports to include such sales. Airco appealed to the Board of Contract Appeals and also filed this lawsuit.

(j) *Caroline Bush Emery, et al. v. The United States* (No. 317-66 in the United States Court of Claims). The landowners alleged that the United States had taken, under the power of eminent domain, the storage rights in Bush Dome, Cliffside Field, Potter County, Texas, and asserted that they were entitled to just compensation therefor. The United States contended that it had the right to store helium in Bush Dome for reason of gas rights it acquired many years ago from the landowners' predecessors.

At the request of the parties, the initial submission to the court involved only the question of whether the right to store helium in Bush Dome was vested in the United States or the landowners. The court decided this question in favor of the landowners.

Landowners and the United States presented their cases as to the value of the storage rights to the Court of Claims in June and July 1970. Landowners claimed the storage rights have a value of about \$2.3 million. The United States claims the storage rights are of no practical value to anyone other than the owner of the gas rights.

The court awarded the plaintiffs \$221,880 plus interest from January 3, 1963, to the time of payment. The plaintiffs subsequently filed claims for costs of litigation and the trial judge has recommended an award of about \$350,000. Final judgment is pending.

#### 9. HELIUM PROGRAM EXPENDITURES, INCOME, AND FINANCIAL CONDITIONS

As of June 30, 1975, the Government had \$534 million invested in helium stored for future use and in helium plants, gasfields, pipelines, and transportation equipment. Program income during 1975 was about \$7.4 million. Expenditures were about \$5.8 million.

The Helium Act Amendments of 1960 require that all funds borrowed from the Treasury plus accrued interest be repaid. During 1975, accrued interest on borrowings totaled \$22.1 million, and thus increased the indebtedness of the U.S. Treasury from \$389.9 million to \$412 million. Table 4 shows the status of the indebtedness as of June 30, 1975.

TABLE 4.—Status of Indebtedness of Helium Fund, June 30, 1975

Indebtedness to U.S. Treasury, June 1, 1975.....	\$389,860,205
Funds borrowed in 1975.....	0
Interest accrued on indebtedness during 1975.....	22,101,419
<b>Total indebtedness prior to repayments.....</b>	<b>411,961,624</b>
Repayments to U.S. Treasury during 1975.....	0
<b>Indebtedness to U.S. Treasury, June 30, 1975.....</b>	<b>411,961,624</b>

The annual expense of the Government's helium program is financed by income from Bureau helium sales and services and by borrowings from the U.S. Treasury. Table 5 presents a summary of the helium program cash flow during 1975.

TABLE 5.—Helium Program Cash Flow—Fiscal Year 1975

Cash on hand July 1974.....	\$6,766,765
Cash received during 1975.....	7,262,663
<b>Cash available in 1975.....</b>	<b>14,029,428</b>
Cash disbursements during year.....	6,807,401
<b>Cash on hand June 30, 1975.....</b>	<b>7,222,027</b>

Table 6 shows the total funds required and funds available in 1975 on an accrued expense and income basis. Table 7 summarizes the assets, liabilities, and net worth of the Helium Fund as of June 30, 1975.

TABLE 6.—Bureau of Mines, Division of Helium, Fund Statement for Fiscal Year 1975<sup>1</sup>

Accounts payable start of year.....	\$36,666,139.93
<b>Funds required current year:</b>	
Acquisition and storage of helium (conservation).....	3,606,315.68
Production and sales of helium.....	2,129,970.93
General and administrative.....	520,873.91
Capital investment.....	235,903.38
<b>Total funds required.....</b>	<b>43,159,203.83</b>
<b>Funds available from operations:</b>	
Income from helium sales, services, and other.....	7,465,235.72
<b>Accounts receivable, start of year.....</b>	<b>1,915,246.86</b>
Less: Accounts receivable, end of year.....	2,073,533.66
<b>Net.....</b>	<b>(158,286.80)</b>
<b>Cash on hand, start of year.....</b>	<b>6,766,765.48</b>
Less: Cash on hand, end of year.....	7,222,027.18
<b>Net.....</b>	<b>(455,261.70)</b>
<b>Net changes in other assets.....</b>	<b>(387,303.13)</b>
<b>Total funds available.....</b>	<b>6,464,384.09</b>
Additional funds required.....	0
Borrowings from U.S. Treasury.....	
<b>Accounts payable.....</b>	<b>36,694,819.74</b>

<sup>1</sup> Includes value of helium delivered under court-ordered injunction.

TABLE 7.—Bureau of Mines, Division of Helium, Financial Condition, June 30, 1975<sup>1</sup>

ASSETS	
<b>Current Assets</b>	
Cash.....	\$7,222,027
Accounts receivable.....	2,073,534
Inventory and work in progress.....	547,535
Deposits and imprest funds.....	190,073
<b>Total current assets.....</b>	<b>10,033,169</b>
<b>Fixed assets</b>	
Helium in underground storage.....	533,930,365
Plants, property, and equipment (net).....	27,577,354
<b>Total Fixed Assets.....</b>	<b>561,507,719</b>
<b>Total assets.....</b>	<b>571,540,888</b>

LIABILITIES AND NET WORTH	
<b>Current liabilities:</b>	
Accounts payable.....	\$36,694,820
Advances.....	208,864
Deposits and imprest funds.....	190,073
Other.....	387,286
<b>Total current liabilities.....</b>	<b>37,481,043</b>
<b>Long-Term Debt: Indebtedness to U.S. Treasury.....</b>	
	411,961,624
<b>Total liabilities.....</b>	<b>449,442,667</b>
<b>Net worth</b>	
Donations and transfers.....	325,443
Retained earnings.....	121,772,778
<b>Total net worth.....</b>	<b>122,098,221</b>
<b>Total liabilities and net worth.....</b>	<b>571,540,888</b>

<sup>1</sup> Includes value of helium delivered under court-ordered injunction.

## SUMMARY OF THE DATA AND CONCLUSIONS

Helium possesses certain unique properties which are being utilized in a number of advanced energy technologies now under development. Adequate supplies of helium are essential for their successful operation.

In this report the Nation's helium resources are examined, supply and demand projections are reviewed and recommendations relating to the management of the Federal Helium Program are made which will insure an adequate supply of helium for the development of helium-dependent energy-related technologies and for other essential uses. The following is a summary of the data and the resulting conclusions upon which these recommendations are based.

## RESOURCES

Helium exists in natural gas but the concentration of the helium differs from field to field. Approximately 85% of the Nation's proven reserves of helium-rich (>0.3%) natural gas are located in Texas, Oklahoma and Kansas. Because natural gas is used as a fuel, these helium reserves are depleting. From 1962-1971 helium was extracted from about half of this gas on its way to market, purchased by the Government and stored underground in a partially-depleted Government-owned gas field. Helium has also been discovered in natural gases with a fuel content too low to be marketed. These helium reserves are "shut in" and are nondepleting.

An analysis of the Nation's natural gas reserves, their helium content and the rate at which they are being depleted indicates that about 280 billion cubic feet (Bcf) of

helium still exist as proved recoverable reserves. By 1990, about 15 Bcf will have been used beneficially, 200 Bcf will have been wasted to the atmosphere, and only about 65 Bcf including the stored helium will remain. In addition, nondepleting helium reserves, designated as "probable", exist in the amount of 35±28 Bcf. This excessive uncertainty should be reduced.

Helium also exists in the atmosphere. There its concentration is five parts per million. Although helium can be extracted from the atmosphere, to do so is costly both in energy and in dollars.

## DEMAND

Current U.S. demand for helium is about 0.7 Bcf/yr. Helium is used in industry for welding, leak detection, cryogenic research, etc. These uses are expected to increase slowly reaching a level of about 1.4 Bcf/yr in the year 2000.

Energy-related uses of helium are projected to be primarily in the area of advanced electric power technology. However these uses are not expected to become substantial until after the year 2000. How much helium will then be required depends upon overall energy usage in the U.S. and also upon the "mix" of the forms in which the energy will be utilized, i.e., how much in the form of electricity and how much in the form of portable, transportable fuels such as oil, etc.

In this study two long term energy scenarios, developed by the Federal Energy Administration in its Project Independence report, have been used. These two scenarios both forecast significantly lower energy growth rates than in the past and they differ considerably in their projected utilization of electricity.

Beginning in the year 2000 three helium-dependent energy-related technologies have been identified which require large amounts of helium. These are:

- (1) Superconducting power transmission.
- (2) Superconducting magnetic energy storage.
- (3) Fusion reactors.

Estimates of helium demand with time have been developed for these technologies assuming that their technical and economic feasibility will have been demonstrated prior to the year 2000 and that their introduction into the economy begins shortly thereafter. Other energy-related uses of helium are relatively small, but their cumulative total is not. These other nonconventional uses have been recognized in this analysis.

Energy-related helium demands could increase from essentially zero in the year 2000 to between 1 and 5 Bcf/yr by 2030. This five-fold uncertainty in demand is a consequence of (a) uncertainty in the overall growth scenario adopted by the Nation as a whole and (b) the differing helium requirements of competing fusion reactor designs. These uncertainties in the projected annual demand for helium yield cumulative demand estimates by the year 2030 ranging from a low of 100 Bcf to a high of 180 Bcf. These demand uncertainties will presumably be diminished as the competition among alternative fusion reactor designs is resolved and as achievable National energy growth rates are agreed upon. Consequently periodic reviews of helium requirements should be scheduled in order to correlate the management of the Federal helium program with changes in projected demand.

## SUPPLY

Government-owned and privately-owned in-place helium extraction plants exist with a potential production capability of about 5 Bcf/yr.<sup>1</sup> Since being built, the volume flow

<sup>1</sup> See table 7.

of the natural gas through these plants has diminished such that only about 3.8 Bcf/yr of helium can be produced at the present time. This is still many times current demand, hence the helium extraction facilities of many of these plants are not operational.

By 1990 the volume flow of natural gas will have decreased to the point that supply will no longer exceed demand. A choice will then have to be made with respect to the source of additional helium. The available options will depend upon what action is taken between 1975 and 1990.

If no action is taken the Government could elect to release helium from its stockpile in 1990 to supplement the remaining production capacity. Following depletion of the stockpile, other nondepleting helium resources could be exploited. Such a course of action would provide about 20 Bcf from current production, 60 Bcf from proved nondepleting reserves and perhaps 35 Bcf from probable nondepleting reserves. The total would amount to about 115 Bcf and this would marginally ensure that a shortage of helium would not impede the implementation of one of the two above-mentioned Project Independence energy scenarios to the year 2030. The other such scenario, which requires 134 Bcf (min) and 180 Bcf (max) of helium by the year 2030 could not be fully implemented. Given the fact that helium will sooner or later have to be extracted from the atmosphere however, the available reserves of helium will at least ensure a substantial development of these new technologies, particularly fusion technology. It is not unreasonable to imagine the dedication of a small percentage of new fusion plants to the task of helium production from the atmosphere for make-up and future growth.

An alternative and more prudent course of action is to hold back the helium in the Federal stockpile in 1990, thus forcing the conventional demand to be satisfied by alternative sources. These alternative sources are not well defined at this time, but they would presumably include imports, the construction of new helium extraction plants on remaining helium-lean natural gas streams (if any, or if any in adequate amounts), etc. It is doubtful that these sources will be able to supply more than 10-20 Bcf before release of helium from the Federal stockpile will become mandatory. Adoption of this course of action will extend the supply of helium.

A third and the most prudent course of action is to provide for the private storage of the excess helium production capacity which exists at the present time. At least 19 Bcf of helium could be so stored by 1990. This helium could be released thereafter to meet demand or it could be held for a longer period forcing maximum utilization of the alternative sources discussed above. Normal economic forces would presumably dictate the mix. The net result could be a significant extension of the helium supply and a long step toward ensuring adequate supplies of helium to permit the playing out of either energy growth scenario, at least through the year 2025. Again it will eventually be necessary to resort to helium extraction from the atmosphere, but this third course of action defers this action the farthest into the future. Procedures for facilitating the private storage of helium should clearly be developed.

#### HELIUM EXTRACTION FROM THE ATMOSPHERE

The cost of extracting helium from the atmosphere is projected to range between \$3000-\$6000 per thousand cubic feet. This is 150-300 times the present commercial cost of helium and 350-700 times the cost of Bureau of Mines helium produced from existing plants. In terms of energy, the production of 1 Bcf/yr of helium from the atmosphere would require about 70% of the projected annual output of the Alaskan oil pipeline or

16% of current annual coal production. This very considerable disparity between the cost of stored helium and helium extracted from the atmosphere underlines and emphasizes the importance of extracting and storing helium from currently available supplies of helium-rich natural gas.

#### INTERNATIONAL CONSIDERATIONS

Although the United States has been the major world source for helium in the past, in the future foreign gas fields will be developed as alternative sources. Such sources will probably last well into the next century but world demand for such helium may be expected to increase at about the same time and at about the same rate as the U.S. demand.

#### MANAGEMENT OPTIONS

No advantages or benefits are discernible in changing responsibility for the management of the Federal Helium Activity.

#### THE FEDERAL HELIUM PROGRAM

The current policies of the U.S. Bureau of Mines Helium Activity such as debt repayment, sale of helium to Federal agencies, stockpiling of Federally-produced helium, etc. warrant further study in view of the findings of this report.

#### RECOMMENDATIONS

The following recommendations concerning the management of the Federal helium program as related to energy are divided into four categories. The first category proposes that a policy relating to the storage of privately-owned helium be established. The second category recommends that a comprehensive policy for the management of publicly-owned helium be developed. The third category addresses the issues of the auspices under which the Federal helium program should be managed and the fourth category relates to proposed actions which will better define the state of the Nation's remaining helium reserves and the future helium demand.

1. *Policy Toward Private Helium Storage.*—The Federal government should facilitate the storage of privately-owned helium in the government-owned Cliffside Field. Since financial, legal and administrative obstacles to such private storage of helium presently exist, government action may be necessary to accomplish this recommendation.

2. *Policy Toward Use of Publicly-owned Helium.*—The Federal government should establish a management and pricing policy for the Federal Helium Program consistent with the objectives of Recommendation No. 1 and taking into account the benefits and costs to the public. This policy should encourage the use of helium from sources other than the Federal helium inventory as long as extraction from other sources is financially justified. Such a policy would encourage investment in new helium extraction plants utilizing helium in helium-lean natural gas, helium production from air separation plants and importation of foreign helium.

3. *Administrative Responsibility for the Federal Helium Program.*—The Federal helium program should continue to be administered by the Department of the Interior.

4. *Policy with Respect to Improving Supply and Demand Estimates of Helium.*—The Federal Government should:

(a) Improve estimates of the magnitude of helium-rich reserves (concentration greater than 0.3 percent) currently identified in the probable nondepleting category where this can be accomplished by a limited program in high opportunity areas, e.g., exploration of helium in the Tip Top field in Wyoming. To this end, alternative levels of effort should be identified and an appropriate program selected based on probable costs and benefits.

(b) Undertake periodic comprehensive helium supply and demand analyses in support of program management. The large uncertainties in projected supply and demand and the possibility of acting to conserve additional helium before the end of the century suggest that program management should periodically consider improved supply and demand data as they are developed and adjust program efforts as required.

#### VIII. CHANGES IN EXISTING LAW

In compliance with subsection 4 of Rule XXIX of the Standing Rules of the Senate, the Committee notes that no changes in existing law are made by S. Res. 253.

The ACTING PRESIDENT pro tempore. The bill is open to amendment. If there be no amendment to be proposed, the question is on the third reading of the bill.

The bill was ordered to a third reading, was read the third time, and passed.

Mr. ROBERT C. BYRD, Mr. President, I move to reconsider the vote by which the bill was passed.

Mr. BELLMON, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

#### MESSAGES FROM THE PRESIDENT

Messages from the President of the United States were communicated to the Senate by Mr. Marks, one of his secretaries.

#### EXECUTIVE MESSAGES REFERRED

As in executive session, the Acting President pro tempore laid before the Senate messages from the President of the United States submitting sundry nominations which were referred to the appropriate committees.

(The nominations received today are printed at the end of the Senate proceedings.)

#### MESSAGES FROM THE HOUSE

At 2:08 p.m., a message from the House of Representatives delivered by Mr. Berry, one of its clerks, announced that the Speaker has made the following appointments:

Mr. VANIK, Mr. GIBBONS, Mr. JONES of Oklahoma, Mr. CONABLE, and Mr. STEIGER, as Official Advisers to the U.S. Delegations to International Conferences, Meetings, and Negotiation Sessions relating to trade agreements during the first session of the Ninety-fifth Congress;

Mr. STEED and Mr. HORTON, as members of the Commission on Federal Paperwork;

Mr. KOCH and Mr. GOLDWATER, as members of the Privacy Protection Study Commission; and

Mr. FOUNTAIN, Mr. RANGEL, and Mr. BROWN of Ohio, as members of the Advisory Commission on Intergovernmental Relations.

#### COMMUNICATIONS FROM EXECUTIVE DEPARTMENTS, ETC.

The PRESIDING OFFICER laid before the Senate the following communications which were referred as indicated:

EC-735, A letter from the Assistant Secretary for Administration of the Department of Agriculture transmitting, pursuant to law, a

corrected and revised copy of the sixth Annual Report on the Location of New Federal Offices and other Facilities for fiscal year 1976 and the transition quarter (with an accompanying report); to the Committee on Agriculture, Nutrition, and Forestry.

EC-736. A letter from the Secretary of Housing and Urban Development transmitting a draft of proposed legislation to extend the national flood insurance program and emergency implementation authority thereunder (with accompanying papers); to the Committee on Banking, Housing and Urban Affairs.

EC-737. A letter from the Secretary of Housing and Urban Development transmitting a draft of proposed legislation to extend certain FHA mortgage insurance and related authorities, and for other purposes (with accompanying papers); to the Committee on Banking, Housing and Urban Affairs.

EC-738. A letter from the Secretary of Housing and Urban Development transmitting a draft of proposed legislation to provide authorizations for and amend laws relating to housing, and for other purposes (with accompanying papers); to the Committee on Banking, Housing and Urban Affairs.

EC-739. A letter from the Acting Administrator of the General Services Administration transmitting, pursuant to law, in Atlanta, Georgia (with an accompanying report); to the Committee on Environment and Public Works.

EC-740. A letter from the Acting Assistant Secretary for Congressional Relations of the Department of State transmitting a draft of proposed legislation to amend title I of the "Foreign Relations Authorization Act, fiscal year 1977," to authorize additional appropriations for fiscal year 1977 (with accompanying papers); to the Committee on Foreign Relations.

EC-741. A letter from the Acting Assistant Secretary for Congressional Relations transmitting a draft of proposed legislation to amend the Foreign Relations Authorization Act, fiscal year 1976, to authorize additional appropriations for the Foreign Service buildings program for fiscal year 1977 (with accompanying papers); to the Committee on Foreign Relations.

EC-742. A letter from the Comptroller General of the United States transmitting, pursuant to law, a report entitled "Potential Effects of National Health Insurance Proposals on Medicare Beneficiaries" (with an accompanying report); to the Committee on Governmental Affairs.

EC-743. A letter from the Director of Communication of the U.S. Department of Agriculture transmitting, pursuant to law the U.S. Department of Agriculture's Freedom of Information Annual Report for the Calendar Year 1976 (with an accompanying report); to the Committee on the Judiciary.

EC-744. A letter from the Acting Staff Secretary for the National Security Council transmitting, pursuant to law, the Freedom of Information Report for Calendar Year 1976 (with an accompanying report); to the Committee on the Judiciary.

#### SELECT COMMITTEE ON SMALL BUSINESS ANNUAL REPORT—REPT. NO. 95-30

Mr. NELSON, from the Select Committee on Small Business, submitted the annual report of the Select Committee on Small Business, which was ordered to be printed.

Mr. NELSON, Mr. President, on behalf of the Select Committee on Small Business, I am submitting to the Senate today the committee's 27th annual report, covering its activities during 1976, and

ask that the report be printed together with its exhibits and appendices.

Senate Resolution 58 of 1950 requires the committee to:

Study and survey by means of research and investigation all problems of American small-business enterprises, and to obtain all facts possible . . . which would . . . be of public interest (and) would aid Congress in enacting remedial legislation, and to report to the Senate from time to time the results of such studies and surveys.

Pursuant to this mandate, we are pleased to inform the Senate that during 1976, the Small Business Committee held 44 days of public hearings, for a total of 107 for the 94th Congress—the largest number of hearings which this committee has ever conducted during any 2-year period of its history.

The results of these inquiries are reported in 18 chapters which are itemized in a detailed table of contents and highlighted in an introductory chapter of this report. The textual material is accompanied by charts, tables, and appendices which are also listed as a part of the contents for convenience.

The opening chapter of the report recounts the committee's efforts to elevate small business policy nationally so that it receives greater visibility and a higher priority. It suggests the convening of a White House Conference on Small Business, the first since 1956, to develop a systematic agenda for restoring an economic climate in which new and small business can survive and flourish.

The report also recapitulates the committee's extensive activities in the tax area, which received a special impetus from the fact that six of its members were also members of the Senate Committee on Finance during 1975 and 1976. The committee's 12 days of hearings on tax and other financial matters during 1975 lead to the inclusion of corporate rate reductions and other small business provisions in the Tax Reduction Act of 1975 and extension of these provisions, as well as thorough reform of the estate and gift tax law and significant revisions of subchapter S—governing closely held corporations. These enactments constitute the most significant tax relief and reform for small- and medium-sized business in the past generation.

The report explains the committee's review of the programs of the Small Business Administration, and its preparation for enhancing its activities in this area pursuant to the action of the Senate in April 1976, conferring upon the committee legislative authority over that executive agency.

Other chapters deal with committee efforts to bring about legislative and administrative actions to reduce paperwork burdens of small business; To eliminate excessive regulation of small firms; to broaden Government procurement from small business contractors and subcontractors; to encourage equality of treatment for women and minority women business owners, to assist family farmers; to solve the product liability insurance crisis facing small producers and distributors; to curb cargo theft and combat abuses of the competitive process—particularly in the pharmaceutical, cos-

metic and airline industries—and many other matters.

The report can serve valuable educational purpose. It still surprises many people that small business accounts for 97 percent of the 13 million U.S. business firms, and more than half of all private employment, 48 percent of the business output, and approximately 43 percent of the gross national product.

In addition, it has been established that smaller business contributes more than half of the inventions and innovations in the economy and is a more consistent supporter of charitable and social institutions in small cities and towns than larger and often absentee corporations.

Thus, a wider understanding of the problems and the potential of small business had a direct bearing upon our country's ability to increase employment, fight inflation, increase productivity and efficiency, improve work environments, and to keep alive the American dream of business ownership. We believe these initiatives can strengthen the overall economy of our Nation and the fabric of our democratic society.

It is, therefore, our hope that the 27th annual report will prove to be a valuable resource for research and action on the part of the Senate, the small business community, and the general public.

#### EXECUTIVE REPORTS OF COMMITTEES

The following executive reports of committees were submitted:

By Mr. CRANSTON, from the Committee on Veterans' Affairs:  
Joseph Maxwell Cleland, of Georgia, to be Administrator of Veterans' Affairs.

(The above nomination was reported with the recommendation that it be confirmed, subject to the nominee's commitment to respond to requests to appear and testify before any duly constituted committee of the Senate.)

By Mr. SPARKMAN, from the Committee on Foreign Relations, and Mr. WILLIAMS, from the Committee on Human Resources:  
Samuel Winfred Brown, Jr., of Colorado, to be Director of the ACTION Agency.

(The above nomination was reported with the recommendation that it be confirmed, subject to the nominee's commitment to respond to requests to appear and testify before any duly constituted committee of the Senate.)

#### ORDER FOR STAR PRINT—S. 442

Mr. PACKWOOD, Mr. President, I ask unanimous consent for a star print of S. 442, a bill to amend title III of the Bankhead-Jones Farm Tenant Act, as amended, to increase the amount of any loan for which funds may be appropriated without prior approval of such loan by congressional committees.

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

#### ORDER FOR STAR PRINT—S. 741

Mr. PROXMIRE, Mr. President, on February 11, I introduced S. 741, the Emergency Mortgage Credit Act of 1977.

As originally printed, however, the bill contained several errors and was incomplete.

Accordingly, I ask unanimous consent for a star print of S. 741, making several corrections in the original and completing the bill by providing for \$7.5 billion in borrowing authority under the Government National Mortgage Association tandem plan in fiscal year 1978.

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

#### INTRODUCTION OF BILLS AND JOINT RESOLUTIONS

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. PROXMIRE:

S. 811. A bill to authorize additional funds for housing assistance for lower-income Americans in fiscal year 1977, and for other purposes; to the Committee on Banking, Housing and Urban Affairs.

By Mr. PACKWOOD (for himself and Mr. HATFIELD):

S. 812. A bill to improve the quality of unshelled filberts and shelled filberts for marketing in the United States; to the Committee on Agriculture, Nutrition, and Forestry.

By Mr. STENNIS (for himself and Mr. EASTLAND):

S. 813. A bill to authorize study of major tributaries draining into the Mississippi River between Bayou Pierre and the Buffalo River in the State of Mississippi with a view to flood control and related purposes; to the Committee on Environment and Public Works.

By Mr. WILLIAMS:

S. 814. A bill to amend the Tariff Schedules of the United States to provide duty-free treatment of any aircraft engine used as a temporary replacement for an aircraft engine being overhauled within the United States if duty was paid on such replacement engine during a previous importation; to the Committee on Finance.

By Mr. JAVITS:

S. 815. A bill for the relief of Ilana Opher; to the Committee on the Judiciary.

By Mr. BAYH:

S. 816. A bill for the relief of certain Postmasters charged with postal deficiencies; to the Committee on the Judiciary.

By Mr. YOUNG:

S. 817. A bill to authorize the Secretary of the Interior to defer repayment of municipal and industrial costs of the Dickinson Unit; to the Committee on Energy and Natural Resources.

By Mr. WILLIAMS:

S. 818. A bill to end the use of steel-jaw leg-hold traps; to the Committee on Environment and Public Works.

By Mr. MATHIAS:

S. 819. A bill to require the appointment of interpreters for hearing impaired individuals in certain judicial proceedings, and for other purposes; to the Committee on the Judiciary.

By Mr. HUMPHREY (for himself, Mr. McGOVERN, Mr. LEAHY, Mr. METCALF, and Mr. ANDERSON):

S. 820. A bill authorizing the Secretary of Agriculture to establish a demonstration program for the application of existing energy conserving and renewable energy technology to farms and agricultural communities; to the Committee on Agriculture, Nutrition and Forestry.

By Mr. HUMPHREY (for himself, Mr. McINTYRE, and Mr. CASE):

S. 821. A bill to authorize the inclusion of solar energy research, development, and demonstration programs in certain agricultural

programs; to the Committee on Agriculture, Nutrition and Forestry.

By Mr. MATHIAS:

S. 822. A bill to abolish the Renegotiation Board; to the Committee on Banking, Housing and Urban Affairs.

By Mr. RANDOLPH:

S. 823. A bill to require that buildings utilized by Federal agencies incorporate the best practicable measures for the conservation of energy and the use of solar energy systems; and for other purposes; to the Committee on Environment and Public Works.

By Mr. BARTLETT (for himself and Mr. BELLMON):

S. 824. A bill to authorize and direct the Secretary of the Interior to convey the mineral interest of the United States to Oklahoma State University to certain lands in Oklahoma, and for other purposes; to the Committee on Energy and Natural Resources.

#### STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS

By Mr. PROXMIRE:

S. 811. A bill to authorize additional funds for housing assistance for lower-income Americans in fiscal year 1977, and for other purposes; to the Committee on Banking, Housing, and Urban Affairs.

Mr. PROXMIRE. Mr. President, I am introducing, on behalf of the administration, the Supplemental Housing Assistance Authorization Act of 1977.

This act would authorize additional funds for housing assistance payments and operating costs under programs established by the United States Housing Act of 1937, and for the urban home-steading program established by the Housing and Community Development Act of 1974.

The act would also authorize appropriations to cover losses charged to the general insurance fund in connection with the operation of FHA mortgage insurance programs, and authorize an increase in the contract period for housing assistance payments in newly constructed or rehabilitated privately owned leased housing.

By Mr. PACKWOOD (for himself and Mr. HATFIELD):

S. 812. A bill to improve the quality of unshelled filberts and shelled filberts for marketing in the United States; to the Committee on Agriculture, Nutrition, and Forestry.

Mr. PACKWOOD. Mr. President, my home State of Oregon has the distinction of being the producer of 95 percent of the U.S. production of filberts, a small round delicious nut often called a hazel nut. It has been the experience of filbert producers in Oregon that imported filberts are frequently of lower quality, thereby damaging the reputation of filberts generally. These imported nuts, primarily from Turkey, are marketed in this country at prices below the cost of production in Turkey.

In 1974 and 1975 the Turkish Government paid 135 Turkish liras for filberts when the world market price was only 9.4 Turkish liras. This created an excess supply which the Government is now trying to get rid of by providing a 5- to 10-percent tax rebate to marketers exporting filberts. In addition, the Union of Filbert

Marketing Cooperatives in Turkey is authorized to reduce the price of shelled round filberts by \$10 per 100 kilograms. The Turkish Government then pays the union the \$10 per 100 lost in the sale. These two direct subsidies have created an inequitable situation for domestic filbert producers.

While we can obviously do nothing about the internal subsidies provided by the Turkish Government to their producers, we can require that imported filberts meet certain standards of size and grade when they are imported into this country. Today I am reintroducing a proposal to amend section 8e of the Agricultural Adjustment Act to give the Secretary of Agriculture the authority to issue a marketing order for imported filberts. He could then promulgate standards for which imported filberts would have to comply. These marketing orders are nothing new. The current list of commodities which can be regulated by the Secretary includes tomatoes, raisins, olives, prunes, avocados, mangoes, limes, grapefruit, green peppers, Irish potatoes, cucumbers, oranges, onions, walnuts, dates, and eggplants.

As my colleagues in the Senate know, I do not favor import restrictions. On the other hand, we cannot allow our country to be the dumping grounds for low-quality, subsidized food commodities produced in other countries. This type of unfair competition ruins the economics and reputation of significant and stable domestic markets.

In addition to introducing this bill, I am asking Senator TALMADGE, chairman of the Senate Agricultural Committee, to consider this issue in hearings he is holding regarding the farm bill. I would like to bring to the committee's attention and the attention of every Senator the statement by President Carter as reported in the Mid-America Dairymen, Inc. Reporter, December 1976. He said:

We must carefully scrutinize the entry of subsidized imports into American markets, especially meat, dairy products and palm oil and take vigorous action to prevent illegal importation of agricultural goods.

I feel this is one of the most important things we can do to insure that domestic producers are not faced with inequitable, imported competition. I encourage all of my colleagues in the Senate to support this and other similar legislation.

By Mr. STENNIS (for himself and Mr. EASTLAND):

S. 813. A bill to authorize study of major tributaries draining into the Mississippi River between Bayou Pierre and the Buffalo River in the State of Mississippi with a view to flood control and related purposes; to the Committee on Environment and Public Works.

Mr. STENNIS. Mr. President, the Homochitto and Buffalo Rivers in Mississippi have a long history of periodic flooding, with consequent heavy damage to private and public property, and loss of life. In the last 2 years alone seven deaths have been caused by this flooding.

The Homochitto-Buffero River Basin extends through five counties—Cochise, Franklin, Lincoln, Amite, and Wilkin— and the lands and properties in-

voled are very widespread. The flooding causes extensive damage to crops and livestock production, private structures, public roads and bridges, and public utilities.

Similar problems are encountered with other major streams in Adams, Jefferson, and Calborne Counties, such as Catherine Creek, Coles Creek, and Bayou Pierre. All of the rivers and streams named are major tributaries of the Mississippi River. They are all subject to flash flooding and some to subsequent extended periods of flooding of agricultural land because of slow drainage characteristics of parts of the stream basins.

The flooding history of the Homochitto River alone is illustrative of the severe problem. This river has been particularly destructive with respect to highway and railroad bridges. It has both severe bank erosion problems and degradation of the streambed throughout much of its length. It floods quickly, tends to meander, and silts up in the wrong places. It has been a problem for a long time to the citizens of the area, the local governments, the State highway department, and the Illinois Central Railroad.

The destruction of bridges by floods on the Homochitto River is noteworthy. In May 1953, five 20-foot approach spans to the bridge on Mississippi Highway 33 were washed out. In April 1955, undermining of a pier by floodwater caused the main span of the U.S. Highway 61 bridge to collapse, with loss of life. This flood also washed out a county bridge, the Illinois Central Bridge at Rosetta, and again damaged the bridge on Mississippi Highway 33.

After the flood of 1971 the Highway 33 bridge had to be extended 300 feet because of river channel changes. This bridge and the Illinois Central Railroad bridge were again washed out by the floods of 1974 and 1975. The cost of replacing the highway bridge alone is \$11,000,000.

Mr. President, Senator EASTLAND joins me in introducing this bill to authorize a study by the Chief of Engineers of major tributaries draining into the Mississippi River between Bayou Pierre and the Buffalo River in the State of Mississippi, with a view of flood control and related purposes. We urge its early consideration by the Public Works Committee, and passage by the Senate at the soonest practicable date.

By Mr. WILLIAMS:

S. 814. A bill to amend the Tariff Schedules of the United States to provide duty-free treatment of any aircraft engine used as a temporary replacement for an aircraft engine being overhauled within the United States if duty was paid on such replacement engine during a previous importation; to the Committee on Finance.

U.S. TARIFF SCHEDULES

Mr. WILLIAMS. Mr. President, I am today introducing legislation which would amend the Tariff Schedules of the United States to provide duty-free treatment of any aircraft engine used as a

temporary replacement for an aircraft engine being overhauled or repaired within the United States if duty was paid on such engine during a previous importation.

A similar measure, H.R. 2181, passed the House of Representatives during the 94th Congress. The measure, with amendments, passed the Senate near the end of the 94th Congress. However, the two Houses were not, prior to the end of the 94th Congress, able to resolve the differences which resulted from the addition of a nongermane and controversial amendment to the Senate version of the measure.

Firms in the United States engaged in aircraft engine overhaul and repair must as a necessary part of their customer service provide, for temporary use, engines to replace those undergoing overhaul or repair. For instance, if a customer has a malfunctioning engine on an aircraft in use abroad, the U.S. firm will send him a rental engine. The foreign operator will install the replacement engine in his aircraft and ship the defective engine to the U.S. firm. The U.S. firm then repairs the original engine and ships it back to the customer who then returns the rental engine to the U.S. firm.

Current law requires that a duty be assessed on foreign-made replacement engines not only when first imported but each time such a loaned engine is reimported upon return of the original engine overhauled or repaired by a U.S. firm. The requirement of successive duty payments on each reimportation of "loaner" aircraft engines after the duty has been paid on original importation serves no purpose and is a cost disincentive to U.S. based firms providing engine overhaul and repair services on foreign-based aircraft.

Enactment of the bill I introduce today will correct this inequity by allowing for the duty-free treatment of any aircraft engine used as a temporary replacement for an aircraft engine being overhauled within the United States if such duty was paid on such replacement engine during a previous importation. This bill inserts a new item 801.20 to handle this specific problem without any further opening up of the Tariff Schedule.

The wide use of turbine engines in corporate as well as airline aircraft has resulted in making the aircraft overhaul and repair industry a multimillion dollar one. Turbine engines typically require an overhaul—that is, servicing—every 5 years according to industry averages. It is estimated that the aircraft engine overhaul and repair business could generate as much as \$20,000,000 in sales in 1977 alone.

Present law prevents American businessmen from competing on equal terms in the highly competitive aircraft engine overhaul and repair industry, since they cannot use foreign-made engines as "loaners". Enactment of this measure would enable American business and labor to meet the international competition in this industry on equal terms. Pres-

ently, our aircraft overhaul and repair centers must compete with centers in Great Britain, Sweden, France, Brazil, Taiwan, and Australia for much of their business. Even on this continent, our aircraft engine service shops face heavy competition from companies such as Rolls Royce of Canada and United Aircraft of Canada. These Canadian enterprises are not operating under the same disadvantage as American enterprises. Once a foreign manufactured good is imported into Canada and duty is paid, the goods become nationalized and are regarded from that time forward as Canadian manufactured goods for Customs purposes.

At a time when unemployment is unacceptably high, when we are losing too much business and too many jobs to foreign competition, we can by enacting this measure help to insure that America's aircraft engine overhaul and repair industry remains vital and competitive and continues to provide employment opportunities for our people. Airwork service division of Purex Corp., which is engaged in the aircraft engine overhaul and repair business, alone employs over 600 people in my State, New Jersey. The enactment of this bill will allow the aircraft engine overhaul and repair industry, now adversely affected by our tariff regulations, to adjust to foreign competition.

Based on current operation of the aircraft engine overhaul and repair business, the annual customs revenue loss resulting from enactment of this bill would be approximately \$2.5 million, a modest amount.

When the present customs regulations were originally drafted, the now common-place type of transactions involving loaner engines were not contemplated. Had they been, I am confident the exemption sought today would have been included in those regulations.

A viable U.S. aircraft engine overhaul and repair industry able to compete in the world market would obviously help improve the balance of payments situation of our country. Enactment of this measure will promote competitive opportunities for U.S. business in foreign markets and promote economic growth and employment in the United States. At a time when we urgently need to expand investment and employment opportunities for our people and promote export development, we should enact this measure which will assist us greatly in achieving these goals.

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

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

S. 814

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That subpart A of part 1 of schedule 8 of the Tariff Schedules of the United States (19 U.S.C. 1202) is amended by inserting immediately after item 801.10 the following new item:

" 801.20 Any aircraft engine or propeller, or any part or accessory of either, previously imported, with respect to which the duty was paid upon such previous importation, if (1) reimported without having been advanced in value or improved in condition by any process of manufacture or other means while abroad, after having been exported under loan, lease, or rent to an aircraft owner or operator as a temporary replacement for an aircraft engine being overhauled, repaired, rebuilt, or reconditioned in the United States, and (2) reimported by or for the account of the person who exported it from the United States..... Free Free "

SEC. 2. The amendment made by the first section of this Act shall apply with respect to articles entered, or withdrawn from warehouse, for consumption on or after the date of the enactment of this Act.

By Mr. WILLIAMS:

S. 818. A bill to end the use of steel-jaw leg-hold traps; to the Committee on Environment and Public Works.

#### STEEL-JAW LEG-HOLD TRAPS

Mr. WILLIAMS. Mr. President, today I am introducing a bill to end the use of the steel-jaw leg-hold trap.

Three incidents which were recently reported in the Star Ledger are illustrative of the need for this legislation:

Hiking near Colliers Mills, William Biel and Phil Pringhorn of Point Pleasant came upon a fawn standing quite still in a clearing. The fawn tried to run when it caught sight of the men, but fell and couldn't rise. The men approached slowly, moving carefully, so the young deer would not panic. They saw immediately that the fawn's right foot was missing, and the animal was terribly thin. . . . The veterinarian confirmed their opinion: The deer had been caught in a leghold trap, and escaped only by leaving its foot behind.

Two children sledding near a shopping center just off the Garden State Parkway at Toms River saw a large fox struggling in the snow, trying to escape from a trap which held him by one leg. They called their parents, who alerted The Shelter in Brick Town. When shelter manager Florence Smith and Virginia Andresen—who has a state licence to keep injured wildlife—arrived, the fox was trying to chew off his leg in order to get free. "There were no tracks around him in the snow, which had stopped falling 17 hours earlier, so he had been suffering at least that long," Smith said. "One has to ask how many other traps were set in that deep snow, and how close had the children come to stepping into a trap themselves?"

Only four days later, Mark Roth of Beachwood came to The Shelter with a female mallard duck he had just rescued from a muskrat trap set in a food area across from four houses on Dover Road in Dover.

Thousands of incidents such as these occur in the United States every year, though most of them are not reported. For every animal trapped for its fur, two others which have no commercial value are killed or mutilated in traps, only to be discarded. The problem is that steel traps are not selective. They do not distinguish between a coyote, a pet dog, a bird, or even a child. The New Jersey branch of the Humane Society of the United States has compiled extensive data on trapping abuses in New

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Jersey, documenting hundreds of cases of pets inadvertently caught in steel traps.

In response to growing public awareness of the cruelty of these devices, several countries have banned them. In nearly all Western European countries, only humane traps are used. In the United States, some State legislatures have either prohibited or restricted the use of steel traps. My own State of New Jersey banned their use in urban counties in 1972.

The bill I am introducing today would prohibit the interstate shipment or importation of steel traps. It would also prohibit the shipment of animal furs or other products from States or countries which have not banned the traps.

Mr. President, I ask unanimous consent that the bill and the Star Ledger articles by Lois Stevenson be printed at this point in the RECORD.

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

S. 818

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

#### DECLARATION OF POLICY

SECTION 1. (a) It is hereby declared to be the public policy of the United States to discourage the needless maiming and suffering inflicted upon wild animals by the use of leg-hold and steel jaw traps; and

(b) In furtherance of this general policy, it shall also be the public policy of the United States to prohibit, among other things, the manufacture, sale, interstate shipment, and use of leg-hold and steel jaw traps in the United States.

Sec. 2. (a) No fur, leather, or other by-products, whether raw or in finished form, shall be shipped into interstate or foreign commerce if such fur, leather, or other by-products come from animals trapped in any State or foreign country which has not banned the manufacture, sale, and use of leg-hold and steel jaw traps.

(b) The Secretary of State shall ban all imports of fur, leather, or other by-products from animals from any and all foreign countries which have not banned the manufacture, sale, and use of such leg-hold and steel jaw traps.

#### CURRENT LIST

Sec. 3. The Secretary of State shall compile, publish, and keep current a list of foreign countries which have not banned the manufacture, sale, and use of leg-hold and steel traps.

#### PENALTIES

Sec. 4. Anyone shipping or receiving fur, leather, or other by-products in contravention of Section 2 of this Act shall, for the first offense, be fined not more than \$1,000; for the second or subsequent offenses, he shall be fined not more than \$5,000 and imprisoned for not more than two years.

#### SHIPMENT OF TRAPS

Sec. 5. Whoever delivers, carries, transports, or ships by any means whatever, in interstate or foreign commerce, any leg-hold, or steel jaw trap or whoever receives, acquires, or purchases, knowingly, any such trap so delivered, carried, transported or shipped, shall for the first offense, be fined not more than \$1,000; for the second or subsequent offenses, he shall be fined not more than \$5,000 and imprisoned for not more than two years.

#### DEFINITIONS

Sec. 6. As used in this Act, the term—

(1) "State" includes each of the several

States of the United States, the District of Columbia, and the territories and possessions of the United States; and

(2) "interstate or foreign commerce" shall have the same meaning as that provided by Section 10 of Title 18, United States Code.

#### EFFECTIVE DATE

SEC. 7. The provisions of this Act shall become effective one year after the date of its enactment.

#### LOVELY FAWN KILLED AS TRAP SEVERS FOOT (By Lois Stevenson)

The steeljaw leghold trap is permitted in 11 of New Jersey's 21 counties. Ocean County is one of them. Last week, a trapping incident occurred there of the kind which happens repeatedly—only the victims change.

Hiking near Colliers Mills, William Biel and Phil Pringhorn of Point Pleasant came upon a fawn standing quite still in a clearing. The fawn tried to run when it caught sight of the men, but fell and couldn't rise.

The men approached slowly, moving carefully, so the young deer would not panic. They saw immediately that the fawn's right rear foot was missing and the animal was terribly thin.

Picking up the deer carefully, they placed it in their truck and took it to The Shelter in Bricktown. There, shelter manager Florence Smith watered the thirsty animal, then placed it tenderly in The Shelter's ambulance for transportation to a veterinarian.

The veterinarian confirmed their opinion: The deer had been caught in a leghold trap, and escaped only by leaving its foot behind. The stump was beginning to heal, but infection was rampant. The doctor administered antibiotic and medicated the stump.

The fawn was given its own room at The Shelter and surrounded with pine boughs, so the sight and scent would be that of its natural habitat. All the rest of that day and through the night, Mrs. Smith tended the malnourished animal, offering a milk formula, alfalfa pellets, oatmeal and apples. Frequently, she rubbed the deer's back with a rough sponge, simulating a doe's tongue caress for her offspring.

At first the fawn appeared to improve. She was docile, her large brown eyes filled with trust in her human friends so obviously trying to help her. But at dawn, too weak to overcome the massive infection running through her body, the young fawn died—another victim among the millions of innocent and helpless creatures trapped annually in this country.

The vicious steeljaw trap is nonselective; it slams shut on any unsuspecting animal or bird that steps into it. In New Jersey there are documented cases of children's hands or feet being caught. There are hundreds of documented cases of dogs and cats that have lost feet, legs or their lives in these reprehensible devices.

This barbaric cruelty has no place in a compassionate and caring society. We can do away with it if only we make the effort, and every person of humanitarian instinct will certainly want to make the effort.

A bill to prohibit the steeljaw leghold trap throughout the state has gathered dust in the Assembly's Agriculture and Environment Committee for the past year. Only public demand can get that bill out of committee and onto the Assembly floor for action. From there, it still has to go through the Senate.

Write now to the Agriculture and Environment Committee, The State House, Trenton, N.J. 08625 and request that they release the bill, A-764. Then write to your own assemblyperson and ask that he or she support this legislation.

Remember, every day that passes means that animals like the fawn are suffering and dying because of leghold traps.

## FOX FALLS VICTIM TO "JAWS OF DEATH"

(By Lois Stevenson)

Another beautiful and fleet-footed creature of the wild became the tortured victim of a steel jaw leghold trap in Ocean County last week.

Two children sledding near a shopping center just off the Garden State Parkway at Toms River saw a large fox struggling in the snow, trying to escape from a trap which held him by one leg. They called their parents, who alerted The Shelter in Brick Town.

When shelter manager Florence Smith and Virginia Andresen—who has a state license to keep injured wildlife—arrived, the fox was trying to chew off his leg in order to get free.

"There were no tracks around him in the snow, which had stopped falling 17 hours earlier, so he had been suffering at least that long," Smith said. "One has to ask how many other traps were set in that deep snow, and how close had the children come to stepping into a trap themselves?"

After tossing a net over the fox, Smith and Andresen were able to get him into the shelter's ambulance and to a veterinary hospital. Dr. David Eisenberg administered a tranquilizer to relieve the fox's extreme pain. Then it took the combined efforts of the doctor and Smith to remove the double-spring trap.

Because the animal's leg was so badly fractured in two places, Eisenberg said, amputation was the only recourse. Treated for shock, the fox was placed in a cage to await surgery. But, too weak to withstand the trauma of his hours-long ordeal, the fox died within the next few hours.

Only four days later, Mark Roth of Beachwood came to The Shelter with a female mallard duck he had just rescued from a muskrat trap set in a wooded area across from four houses on Dover Road in Dover. (Ocean County.)

Still under treatment at a veterinary hospital, the duck's future remains uncertain. "She has two broken bones in her left foot, and the bone was exposed," noted Dr. Peter Falk.

After the story of a trapped deer appeared in this column two weeks ago, this writer received several highly emotional, abusive and profane letters from trappers who claimed the deer's injury was too high on the leg to have been caused by a trap.

Obviously, these self-styled "experts" have never heard of the jump trap: Its spring is a single strip of steel, which leaps upward when released, causing the animal to be grabbed higher on the leg, or at the shoulder, making it more difficult for the animal to chew off its foot.

Out of New Jersey's more than seven million people, about 3,500 are licensed trappers. Thus, a mere five-one hundredths per cent of our population is permitted to injure, torture and kill domestic pets and wildlife which—if it belongs to anyone at all—belongs to all of us. And, what's more, make money from the wicked practice.

By Mr. MATHIAS:

S. 819. A bill to require the appointment of interpreters for hearing-impaired individuals in certain judicial proceedings, and for other purposes; to the Committee on the Judiciary.

## INTERPRETERS FOR THE HEARING IMPAIRED ACT

Mr. MATHIAS. Mr. President, I send to the desk the Interpreters for the Hearing Impaired Act. This bill would provide for the following:

First. Court appointment of "interpreters" for a hearing-impaired defendant or witness throughout any Federal criminal proceeding;

Second. Court appointment of "inter-

preters" for hearing-impaired persons who are parties or participants in any Federal civil action;

Third. Discretionary authority for a judge to order the visual electronic recording of any or all testimony given by a hearing-impaired person;

Fourth. Development and maintenance of lists of certified "interpreters" available for appointment in Federal court actions; and

Fifth. Certification of qualified "interpreters" for inclusion on such lists.

The bill is designed to remedy a continuing problem within our Federal court system. I refer specifically to the difficulty those suffering from either a full or partial hearing impairment have when they become involved with our judicial system. Many millions of Americans who are deaf or hearing-impaired are not now able to understand and communicate during Federal court proceedings. My bill is designed to insure that these Americans stand equal before the law. I am proud that my own State of Maryland has been in the forefront of those jurisdictions which have enacted legislation providing for the appointment of interpreters for hearing-impaired individuals in State court proceedings.

Currently, the Federal Rules of Criminal Procedure, Civil Procedure, and Evidence provide for the appointment of translators at the discretion of the judge. This causes several problems. First, the word "translators" generally suggests a foreign language and not sign language. In addition, as there is no equivalent in modern sign language for many spoken words, particularly technical words and phrases, direct translation is not possible. Consequently, "interpretation" and not "translation" is needed for the hearing-impaired. This bill would clarify the present ambiguity in the language of the law by specifically authorizing the appointment of "interpreters."

Second, the discretionary nature of the rules is overly broad. As a result, there is no uniform national standard to govern the appointment of interpreters.

Third, the rules do not address the significant question of what constitutes a "qualified interpreter"; nor do they provide authority for Federal courts to compile and maintain lists of qualified interpreters. My bill would remedy this situation.

Current estimates of the deaf or hearing impaired population range from 14 million to 20 million. The bill I am introducing today would guarantee these citizens fair and just treatment when they come in contact with our judicial system.

Mr. President, I urge my colleagues to support this bill. If we fail to act, we will in effect have denied to a significant group of our fellow citizens their right to fair and equitable treatment in our courts.

Mr. President, I ask unanimous consent that the text of the Interpreters for the Hearing-Impaired Act be printed in the RECORD, together with an excellent article which appeared in the New York Supplement, entitled "The Deaf Individual in a Legal Setting" by Michael A. Chatoff. Mr. Chatoff is himself deaf. De-

spite this handicap, Mr. Chatoff is a practicing attorney, who has been a leader in working for the rights and interests of the deaf. Mr. Chatoff's pioneer efforts have been of great value in the development of the bill I introduce today.

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

S. 819

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 "Interpreters for the Hearing Impaired Act".

SEC. 2. (a) Chapter 119 of title 28, United States Code, is amended by adding at the end thereof the following new section:

"§ 1827. Proceedings involving the hearing impaired

"(a) (1) In any criminal action in a court of the United States, whenever the judge determines, on his own motion or on the motion of a party to the proceedings, that (A) the defendant, because of hearing impairment, does not speak or understand the English language with a facility sufficient for him to comprehend either the proceedings or the testimony, or (B) in the course of such proceedings, testimony may be presented by any witness who because of hearing impairment does not speak or understand the English language, the court in all further proceedings in that action, including arraignment, hearings, and trial, shall order that (i) the proceedings be conveyed to such defendant or witness in a language or other mode of communication that he understands and (ii) the testimony of such defendant or witness be interpreted into English for the court by an interpreter selected in accordance with the provisions of subsection (b).

"(2) In any civil action in a court of the United States, whenever the judge determines on his own motion or on the motion of a party to the proceedings, that (A) a party, because of hearing impairment, does not speak or understand the English language with a facility sufficient for him to comprehend either the proceedings or the testimony, or (B) in the course of the proceedings, testimony may be presented by any witness who because of hearing impairment does not speak or understand the English language, in all further proceedings in that action, including hearings and trial, the court shall order that (i) the proceedings be conveyed to such party or witness in a language or other mode of communication that he understands and (ii) the testimony of such party or witness be interpreted into English for the court by an interpreter selected in accordance with the provisions of subsection (b).

"(3) In any criminal or civil action in a court of the United States, the judge, on his own motion or on the motion of a party to the proceedings, may order all or any part of the testimony of the hearing impaired individual and the interpretation thereof to be electronically recorded (visually) for use in verification of the official transcript of the proceedings.

"(4) The defendant in any criminal action in a court of the United States, or a party in any civil action in a court of the United States, who is entitled to an interpretation under this section, may waive the interpretation in whole or in part. Such waiver must be (A) expressly made by the defendant or party upon the record after the judge has explained to such defendant or party, through the use of an interpreter selected in accordance with the provisions of subsection (b), the nature and effect of such waiver, and (B) approved by the judge and, in the case of a defendant in any criminal action, by such defendant's attorney.

"(5) The term 'judge' as used in this sec-

tion means a judge of the United States, a United States magistrate, or a referee in bankruptcy.

"(b) (1) The district court in each judicial district shall maintain on file in the office of the clerk of the court a list of all persons in that district who have been certified as interpreters for the hearing impaired by the Director of the Administrative Office of the United States Court as provided in section 604(a) (13) of this title.

"(2) In any action where the services of an interpreter are required to be utilized under this section, the court shall obtain the services of a certified interpreter in the judicial district in which the court is located, except that, if there are no certified interpreters in that judicial district, the court, with the assistance of the Administrative Office of the United States Courts, shall determine the availability of and utilize the services of certified interpreters from a nearby district. If no certified interpreter is available from a nearby district, the court shall obtain the services of an otherwise competent interpreter. If the interpreter appointed by the court is unable to communicate effectively with the defendant, party, or witness, the court shall dismiss such interpreter and appoint another interpreter in accordance with the provisions of this paragraph."

(b) The analysis of chapter 119 of title 28, United States Code, is amended by adding at the end thereof the following:

"§ 1827. Proceedings involving the hearing impaired."

SEC. 3. Section 604(a) of title 28, United States Code, is amended—

(1) by redesignating paragraph (13) as paragraph (14); and

(2) by inserting immediately after paragraph (12) the following new paragraph:

"(13) Pursuant to section 1827 of this title (A) prescribe, determine, and certify the qualifications of persons who may serve as certified interpreters in proceedings involving the hearing impaired, taking into consideration the education, training, and experience of such persons; (B) maintain a current list of all interpreters certified by him, and report annually on the frequency of requests for, and the use and effectiveness of interpreters in proceedings involving the hearing impaired; (C) provide or make readily available to each district court appropriate equipment and facilities for the interpretation of proceedings involving the hearing impaired; (D) prescribe, from time to time, a schedule of reasonable fees for services rendered by such interpreters and, in those districts where the Director considers it advisable based on the need for interpreters for the hearing impaired, authorize the full or part-time employment by the court of such certified interpreters; and (E) pay out of moneys appropriated to the judiciary for the conduct of proceedings involving the hearing impaired interpreters' fees or costs of electronic recording which are incurred in a particular proceeding, unless the court, in its discretion, directs that all or part of such fees or costs be apportioned between the parties to a civil proceeding or allowed as costs in such proceeding; and"

SEC. 4. There are authorized to be appropriated to the Federal judiciary such sums as may be necessary to carry out the amendments made by this Act.

SEC. 5. The amendments made by this Act shall take effect on October 1, 1977.

#### THE DEAF INDIVIDUAL IN A LEGAL SETTING (By Michael A. Chatoff)

Almost 200 years ago, Thomas Jefferson said: "Equal and exact justice to all men \* \* \* These principles form the bright constellation which has gone before us and guided our steps through an age of revolution and reformation." This country has taken great strides to guarantee that equal justice is assured to all individuals—but

much remains to be done. Legally, deaf individuals are among the truly disenfranchised. It is axiomatic that one who cannot hear, cannot understand legal proceedings. Lipreading is a very imprecise science—even in an ideal situation an adept lipreader can understand no more than 40 to 50 percent of words spoken on the lips, but a courtroom proceeding is far from an ideal situation—different people speak in rapid succession so that a person attempting to read the speakers' lips must swivel his head as if he were at a tennis match. Further, the tone of some communications can be gleaned from the gestures of the speaker, but frequently a deaf individual will find it difficult to determine who the speaker is at any one time. Also, it should be noted that many deaf individuals have little or no usable speech—because the development of speech requires that an individual hear his own voice as well as the voices of others.

Clearly, in a criminal proceeding, a deaf individual cannot confront (in the Constitutional sense) the witnesses against him or consult with or assist counsel—unless his deafness is compensated for in some way. An interpreter should be appointed for him as a matter of right. A qualified interpreter can interpret the proceedings into sign language (fewer than one half of the deaf individuals in this country know sign language, because most schools for the deaf and many educators of the deaf are opposed to teaching deaf students any form of manual communication), transcribe them, or use any other technique designed to convey the meaning of the proceedings to the deaf individual and to convey the testimony of the deaf individual to the court. True, the simultaneous transcription of the proceedings will slow the legal process, but the alternative will be to deny the defendant, solely because of his deafness, the Constitutional rights that are his due. It would be ludicrous for the Federal Government or a State Government to place in jeopardy the life, liberty, or property of a deaf individual and then to deny that individual the right to defend himself, solely because of a physical disability that can be compensated for. See *Mothershead v. King*, 112 F.2d 1004 (Eighth Circuit, 1940); and *Ralph v. State*, 124 Ga. 81, 52 S.E. 298 (1905).

In a far-sighted opinion, fifty years ago a State judge noted the problems of a deaf defendant in a criminal proceeding: "In the absence of an interpreter it would be a physical impossibility for the accused, a deaf-mute, to know or to understand the nature and cause of the accusation against him, and, as here, he could only stand by helplessly, take his medicine, or whatever may be coming to him, without knowing or understanding, and all this in the teeth of the mandatory constitutional rights which apply to an unfortunate deaf-mute, just as it (sic) does to every person accused of a violation of criminal law \* \* \* Mere confrontation would be useless \* \* \* bordering upon the farcical if the accused could not hear or understand the testimony." *Terry v. State*, 21 Ala. App. 100, 105 So. 386 (1925).

To date, more than thirty States<sup>1</sup> have enacted laws providing for the appointment of an interpreter for a deaf defendant in a criminal proceeding. Although those laws represent a substantial beginning, the Federal Government and almost two-fifths of the States have no statutory provisions to protect the rights of a deaf defendant. Further, not one of the existing State statutes is

even arguably adequate, for one or more of the following reasons. They:

1. Provide for the translation of the proceedings into sign language only (thereby denying a deaf individual who does not know sign language his Constitutional rights, for that reason alone; *Cf. Ferrell v. State*, 479 S.W.2d 916 (Texas Crim. App., 1972));

2. Require a deaf individual to request affirmatively the assistance of an interpreter (an unlikely occurrence inasmuch as most deaf individuals are unfamiliar with the law);

3. Fail to provide for the appointment of an interpreter at critical stages in the criminal process that precede trial, i.e., arraignment, line-up (essential steps at which accused individuals are supposed to be accorded all Constitutional rights);

4. Fail to provide for Governmental payment for the services of an interpreter (thereby requiring a deaf individual, who more often than not is a low-income individual, to pay for such services, to assure him rights due him under the Federal and State Constitutions; See *Myers v. County of Cook*, 34 Ill.2d 541, 216 N.E.2d 803 (1966)); or

5. Fail to provide for the certification and registration of interpreters for deaf individuals (thereby making it all but impossible for judges, except in large municipalities, to locate a qualified interpreter).

Although there are some similarities in the legal problems experienced by deaf individuals and by mentally incompetent individuals and individuals who speak a language other than English, the problems of individuals in the three groups differ considerably, and any attempt to assure the rights of more than one group in one piece of legislation will result most assuredly in the denial of rights to all concerned. Except in rare instances, a physical disability, such as deafness, can be compensated for if the necessary effort is made. Although I do not profess to know or understand all the problems of mentally incompetent individuals, it is my belief that little can be done in a legal setting to compensate for a mental deficiency. Of course, the problems of an individual who is unable to speak a particular language can in no way be compared with the problems of an individual who has lost one of the two major senses.

The right of a deaf individual to an interpreter in a criminal proceeding would appear to be irrefutable. Several of the above-referred to State statutes provide for the appointment of an interpreter for a deaf individual in a civil proceeding as well. The Constitutional right of a deaf individual to the appointment of an interpreter in a civil proceeding remains unclear, although the case of *Boddie v. Connecticut*, 401 U.S. 371, 91 S. Ct. 780, 28 L.Ed.2d 113 (1971) and the decision following hold that an individual cannot be denied "access to the courts" in civil matters. Inasmuch as a deaf individual who has not been provided with an interpreter will be shut out of the courtroom as surely as if the doors had been locked and the key thrown away, he may well be denied the "access to the courts" that is his Constitutional right.

Helen Keller stated on several occasions that deafness is a more severe disability than blindness because of the difficulty it creates in communications between individuals. However, it is not my purpose to pit the deaf against the blind—each reader can decide for himself which disability he considers the more severe. But either, or even both, can be lived with if others who are in a position to do so take the necessary steps to compensate for that disability. As a matter of humanness alone, individuals capable of assuring deaf individuals an opportunity to understand proceedings that threaten to deprive them of their freedom ought to seize the opportunity. But the problem is more than one of humaneness; it seems incontestable that any legal system that seeks to deprive an in-

<sup>1</sup> Alabama, Arizona, Arkansas, California, Connecticut, Florida, Georgia, Illinois, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Virginia, Washington, West Virginia, and Wisconsin.

dividual of his liberty must accord him the chance to defend himself.

By Mr. HUMPHREY (for himself, Mr. McGOVERN, Mr. LEAHY, Mr. METCALF, and Mr. ANDERSON):

S. 820. A bill authorizing the Secretary of Agriculture to establish a demonstration program for the application of existing energy conserving and renewable energy technology to farms and agricultural communities; to the Committee on Agriculture, Nutrition, and Forestry.

By Mr. HUMPHREY (for himself, Mr. McINTYRE, and Mr. CASE):

S. 821. A bill to authorize the inclusion of solar energy research, development, and demonstration programs in certain agricultural programs; to the Committee on Agriculture, Nutrition, and Forestry.

AGRICULTURE SOLAR ENERGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION ACT OF 1977

Mr. HUMPHREY. Mr. President, our agricultural sector is not immune to the pressures of our current natural gas shortage. Farmers and rural communities in general are at the end of pipelines—they pay top prices and are the first to feel shortages. Propane is an excellent example. This winter saw propane prices reach record highs, yet it became so scarce that some farmers were not able to heat their homes.

Farmers and our rural communities, however, are far from helpless. They have one major asset which urban dwellers do not—plenty of land and sunshine. They are uniquely situated to utilize solar energy as it becomes more and more competitive with fossil fuels.

But farmers and our rural citizens face other problems similar to urban dwellers. Solar technology is still relatively expensive; it requires the availability of front-end capital. In addition, it requires a more concentrated research and development effort on solar technology applicable to agricultural and small rural communities.

For that reason, I am today offering the Agriculture Solar Energy Research, Development, and Demonstration Act of 1977. An identical bill is being offered today by my friend GEORGE BROWN in the House of Representatives. I congratulate him for the initiative and effort in developing this act.

The Agricultural Solar Energy Research, Development, and Demonstration Act of 1977 establishes a comprehensive solar energy R. & D. program in the USDA. It authorizes the Extension Service to accelerate solar energy use and enables the Farmer's Home Administration to make loans for solar energy devices. It establishes model solar demonstration farms as well to be managed by USDA with assistance from the Extension Service, land grant colleges, and State experiment stations.

As you know, Mr. President, this bill is one of many being offered today by a coalition of Congressmen and Senators vitally concerned with our lagging solar energy efforts. I share their legitimate concern that we must make a more aggressive effort to bring solar energy into the mainstream of our society. Its costs are falling. Its reliability and technology

are improving. And, it has a large role to play in providing a sizable portion of our future energy supplies.

Let me remind my colleagues that I and some 25 other Senators are sponsoring S. 672, the Solar Energy Government Building Act, which is designed to slash solar space- and water-heating costs, plus solar photovoltaic costs—to make them economically competitive with conventional heating and electricity generation systems. That bill was referred to the Senate Environment and Public Works Committee under the chairmanship of my good friend, Senator RANDOLPH. I understand that committee will review the wisdom of applying solar energy to Government buildings and I hope it will conclude that an effort similar to that called for in my legislation is warranted.

AGRICULTURAL ENERGY DEMONSTRATION ACT OF 1977

Mr. President, the current energy crisis has hit farmers and rural families particularly hard. They depend heavily on propane which has soared in price—if any can be located at all. And they are concerned over the availability this spring of nitrogen fertilizer.

If data on gas reserves is to be believed, the current crisis is merely the tip of a longrun supply shortage problem. And the natural gas problem is symptomatic of our entire national energy outlook.

I want the Department of Agriculture to make a major response to this situation by accelerating energy conservation efforts as well as the development of new energy sources for agriculture, food processing, and rural America generally.

I hope that the President's energy program, to be announced by April 20, will not fail to deal with energy as it relates to the agricultural sector. At the same time, I want to insure that agricultural and rural America is not overlooked—and that a fair portion of our energy conservation and renewable energy demonstration efforts are oriented in this direction.

With the creation of the Energy Research and Development Administration—ERDA—the United States was expected to embark on a period of aggressive, balanced energy research. I believe that ERDA has done worthwhile, basic energy research. The USDA must now take these findings and begin the process of demonstrating and applying ERDA's work—giving practical application to the fruits from ERDA's basic research efforts.

Highly developed processes for utilizing solar, wind, geothermal, and waste product energy already exist. Due to its small size and compact operations, a farm that draws a large portion of its energy from the Sun, wind or agricultural waste products is not very far off. Also, while a city of 500,000 may face serious problems in trying to use solar energy on a large scale, a small rural town of several hundred or even 5,000 or 10,000 would not be subject to the same difficulties.

Yet, the Department of Agriculture's Agricultural Research Service, cooperative State research service, and State ex-

perimental stations must rely on grants from ERDA or the National Science Foundation to finance agricultural and rural energy R. & D. programs to construct pilot plants utilizing alternative energy sources.

Since there is a great opportunity for early utilization of alternative energy forms in rural areas, I am introducing the Agricultural Energy Demonstration Act of 1977, which will change the method by which a part of the USDA's agricultural energy research program is financed.

The bill establishes an Office of Agricultural Energy Demonstration within the Department of Agriculture; \$20 million for fiscal year 1978 and \$30 million for fiscal year 1979 would be provided to the Office for the demonstration of energy conserving and renewable energy application on farms and in farming communities.

The Office's mission will be to formulate and carry out a coordinated demonstration program designed to increase agricultural and rural energy efficiency by implementing alternative energy source demonstration projects and by refining energy conservation developments to specific agricultural and rural uses.

With its new mission and the specific organizational framework to carry it out, the Office of Agricultural Energy Demonstration will be able to develop rural alternative energy source pilot plants at a pace that will benefit the entire Nation. Small efforts like this one clearly play as great a role as major programs in helping the United States achieve a modicum of energy independence. Dollar for dollar, this is surely a wise investment of American taxpayers' money.

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

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

S. 820

*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 "Agricultural Energy Demonstration Act of 1977."*

SEC. 2. Purpose. It is the purpose of this act to stimulate the adoption and application in farms, farm homes, farm machinery, farm buildings, rural communities and food processing facilities of new technology designed to conserve energy and to produce renewable energy through the establishment of a demonstration program within the Department of Agriculture.

SEC. 3. Definitions.

(a) The term "energy conservation" means devices, systems and techniques designed to improve the efficiency with which energy is utilized including the capture of waste heat;

(b) The term "renewable energy" means energy with appropriate storage capacity which is produced directly or indirectly from solar radiation, wind, water thermal gradients, the combustion or anaerobic digestion of agricultural or wood products, or geothermal resources; and

(c) The term "Secretary" means the Secretary of Agriculture.

SEC. 4. Program Establishment.

(a) The Secretary shall establish within 90 days following enactment of this act, an Agricultural Energy Conservation and Renewable Energy Demonstration Program (hereinafter termed "Program"), such Program to be conducted by the Office of Agri-

cultural Energy Demonstration (hereinafter termed the "Office").

(b) Duties of the Secretary. In conducting the Program established pursuant to this section, the Secretary shall:

(1) demonstrate the application of energy conservation to:

- (A) food processing;
- (B) grain and crop drying;
- (C) farm homes, buildings, machinery and equipment;
- (D) crop irrigation;
- (E) electricity production on the farm and in rural communities; and
- (F) other appropriate purposes.

(2) demonstrate the application of renewable energy technology to:

- (A) produce electricity for farms and for rural communities;
- (B) produce electricity and process heat for food processing;
- (C) irrigate cropland;
- (D) heat and cool farm homes, buildings and rural communities;
- (E) heat water;
- (F) power farm machinery, equipment and vehicles;
- (G) replace fossil fuels in farm and rural applications; and
- (H) other appropriate applications, including the harvesting of crops for nonagricultural or rural application.

(3) actively solicit proposals on a continuing basis which are designed to achieve the purpose of this Act.

(4) develop such standards for systems, devices and techniques utilized in the program as the Secretary deems appropriate, with assistance from the Director of the National Bureau of Standards, the Administrator of the Energy Research and Development Administration, the Administrator of the Federal Energy Administration, and the Secretary of Housing and Urban Development.

(5) insure that the Office utilizes to the maximum extent possible the resources of the Cooperative State Research Service, State agricultural experimental stations, land-grant universities, the Extension Service of the Department of Agriculture, the Farmers Home Administration, and the Rural Electrification Association.

**SEC. 5. PROGRAM GUIDELINES.**—In determining priorities for the allocation of funds provided for the demonstration of energy conservation and renewable energy applications, the Secretary shall:

(a) consider the extent to which each demonstration application will reduce the national dependence on nonrenewable fossil fuels;

(b) give priority consideration to demonstration applications which will stimulate the development of a widespread infrastructure of personnel trained in the production, installation, and maintenance of energy conservation and renewable energy systems, devices, and technology;

(c) give priority to the generation of electricity and process heat by distributed, onsite renewable energy systems and devices;

(d) give priority to the needs of small and independent farmers (as the term "farmer" is defined in section 343 of the Consolidated Farm and Rural Development Act, and U.S.C. 1923); and

(e) give priority to the dissemination of information regarding energy conservation and renewable energy opportunities to farms and rural communities.

**SEC. 6. PROGRAM MONITORING, REPORT.**—

(a) The Secretary shall monitor the demonstration applications established pursuant to this Act, and shall annually report to Congress and the President regarding the status of the existing program, and make recommendations for the acceleration of such program.

**SEC. 7. AUTHORIZATION.**—

(a) There is hereby authorized for the purpose of this Act the sum of twenty million dollars for the fiscal year ending September 30, 1978, and thirty million dollars for the

fiscal year ending September 30, 1979, to carry out the provisions of this Act.

S. 821

*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 "Agricultural Solar Energy Research, Development, and Demonstration Act of 1977".

**TITLE I—EXISTING PROGRAMS**

**AGRICULTURAL RESEARCH**

**SEC. 2.** The Act entitled "An Act to provide for research into basic laws and principles relating to agriculture and to provide for the further development of cooperative agricultural extension work and the more complete endowment and support of land-grant colleges," approved June 29, 1935 (popularly known as the Bankhead-Jones Act), is amended—

(1) by inserting after "electricity and other forms of power;" in the third sentence of section 1 (7 U.S.C. 427) the following: "research and development relating to uses of solar energy with respect to farm buildings, farm homes, and farm machinery (including equipment used to dry crops and provide irrigation);";

(2) by adding at the end of section 1 the following new sentence: "For purposes of this title, the term 'solar energy' means energy (other than energy derived from the fossilization process) obtained from solar radiation."; and

(3) by adding at the end of section 10 (7 U.S.C. 427i) the following new subsection:

"(f) Of the sums authorized to be appropriated for any fiscal year under subsection (a) of this section, \$25,000,000 is authorized to be appropriated to carry out research and development relating to uses of solar energy with respect to farm buildings, farm homes, and farm machinery (including equipment used to dry crops and provide irrigation)."

**AGRICULTURAL EXTENSION**

**SEC. 3.** The Act entitled "An Act to provide for cooperative agricultural extension work between the agricultural colleges in the several States receiving the benefits of an Act of Congress approved July second, eighteen hundred and sixty-two, and of Acts supplementary thereto, and the United States Department of Agriculture", approved May 8, 1914, is amended—

(1) by inserting after "subjects relating to agriculture" in the first section (7 U.S.C. 341) the following: "uses of solar energy with respect to agriculture.";

(2) by adding at the end of the first section the following new sentence: "For purposes of this Act, the term 'solar energy' means energy (other than energy derived from the fossilization process) obtained from solar radiation.";

(3) by inserting after "demonstrations in agriculture" in section 2 (7 U.S.C. 342) the following: "uses of solar energy with respect to agriculture."; and

(4) by adding at the end of section 3(a) (7 U.S.C. 343(a)) the following new sentence: Five percent of the sums so authorized to be appropriated for each fiscal year shall be used to carry out cooperative agricultural extension work with respect to uses of solar energy."

**RURAL DEVELOPMENT**

**SEC. 4.** (a) Section 303 of the Consolidated Farm and Rural Development Act (7 U.S.C. 1923) is amended by inserting "(a)" immediately before the first sentence and by adding the following new subsections at the end of such section:

"(b) For purposes of this subtitle—  
 "(1) the term 'improving farms' includes the acquisition and installation of any qualified solar energy thermal conversion system in any residential structure located on a family farm; and  
 "(2) the term 'qualified solar energy ther-

mal conversion system' means solar heating and cooling equipment (within the meaning of the Solar Heating and Cooling Demonstration Act of 1974) which meets the Intermediate Minimum Property Standards prescribed by the Secretary of Housing and Urban Development or such later or revised appropriate and available standards as may be prescribed by the Secretary.

"(c) Five years after the enactment of this subsection, no loan may be made or insured under this subtitle for the purpose of financing the acquisition and installation of any such system in any residential structure located on a family farm."

(b) Section 312(a) of the Consolidated Farm and Rural Development Act (7 U.S.C. 1942(a)) is amended—

(1) by inserting after "poultry, and farm equipment" in clause (2) the following: "(including equipment which utilizes solar energy)"; and

(2) by adding at the end of such section the following new sentence: "For purposes of this section, the term 'solar energy' means energy (other than energy derived from the fossilization process) obtained from solar radiation."

**TITLE II—SOLAR DEMONSTRATION FARMS**

**SOLAR RESEARCH INFORMATION SYSTEM**

**SEC. 5.** The Secretary of Agriculture (hereinafter in this title referred to as the "Secretary") shall, through the Cooperative State Research Service and other agencies within the Department of Agriculture which the Secretary considers appropriate, in consultation with the Energy Research and Development Administration, the Agricultural Institute of the National Academy of Sciences, and private and nonprofit institutions involved in solar energy research projects, compile and list solar energy research projects which are being conducted by Federal, State, private, and nonprofit institutions. Such projects include heating and cooling methods for farm structures and dwellings (such as greenhouses and livestock shelters), storage of power, operation of farm equipment (including irrigation, pumps, crop dryers, and anaerobic digesters), and development of new technology to be used on farms which are powered by solar energy.

**SOLAR DEMONSTRATION FARMS**

**SEC. 6.** There is established within the Department of Agriculture an advisory committee to be known as the Research and Demonstration Planning Committee (hereinafter in this Act referred to as the "Committee").

**SEC. 7.** (a) The Committee shall be composed of nine members, including a chairman, appointed by the Secretary. In making appointments to the Committee, the Secretary shall appoint the following members:

(1) one member from each of the following agencies within the Department of Agriculture: the Agricultural Research Service, the Extension Service, and the Cooperative State Research Service;

(2) one member who will be able to represent the interests of land-grant colleges and universities as a result of his or her having been employed by such a college or university;

(3) one member who will be able to represent the interests of State agricultural experiment stations as a result of his or her having conducted or supervised research at such an experiment station;

(4) one member who will be able to represent the interests of nonprofit research institutions as a result of his or her having been employed by such an institution; and

(5) one member who will be able to represent the interests of private research institutions as a result of his or her having been employed by such an institution; and

(6) two members who will be able to offer expert advice concerning the utilization and conservation of energy resources as a result of his or her having extensive and distin-

gushed experience in the study of the utilization and conservation of energy.

(b)(1) Except as provided in paragraphs (2) and (3), members shall be appointed for terms of four years.

(2) The Secretary shall appoint the first members of the Committee within 90 days after the date on which this title takes effect. Of such first members—

(A) three shall be appointed for terms of one year,

(B) three shall be appointed for terms of two years, and

(C) three shall be appointed for terms of three years,

as designated by the Secretary at the time of appointment.

(3) Any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed only for the remainder of such term. A member may serve after the expiration of his term until his successor has taken office.

(c) A vacancy on the Committee shall be filled within sixty days after the vacancy occurs and in the manner in which the original appointment was made.

Sec. 8. (a) The Committee shall—

(1) be responsible for compiling and listing solar energy research projects under section 5;

(2) meet annually with four regional representatives of the State departments of agriculture to determine which solar energy research projects listed under section 5 will be useful and beneficial to States which are in each of the 4 regions into which the States are divided by the State departments of agriculture;

(3) reevaluate and reformulate the selection of solar energy research projects for demonstration each year;

(4) annually review and evaluate the progress, the degree of local interest, and the effectiveness of the demonstration farms within each State; and

(5) prepare and submit an annual report to the Secretary and both Houses of the Congress containing an evaluation of the demonstration farms within each State (including comparisons of the usage of energy, water, and organic matter before and after the demonstrations on such farms) and of the degree of farmer and local interest.

(b) In determining which projects will be useful and beneficial to States under subsection (a)(2), the Committee and regional representatives shall—

(1) consider the energy and agricultural needs and resources of the States within each region described in subsection (a)(2).

(2) determine, taking into consideration the particular problems of the State and region concerned, which projects are likely to result in the farmers of such State conserving energy, lowering operating costs, and producing agricultural commodities more efficiently;

(3) consider the needs of small farmers; and

(4) consider all factors which directly affect the use of various solar energy systems, including such factors as climate, number of livestock farms, wind velocity, and farm sizes.

Sec. 9. (a) Except as provided in subsection (b), members of the Committee shall each be entitled to receive the daily equivalent of the annual rate of basic pay in effect for grade GS-12 of the General Schedule for each day (including travel time) during which they are engaged in the actual performance of duties vested in the Committee.

(b) Members of the Committee who are full-time officers or employees of the United States or Members of Congress shall receive no additional pay on account of their service on the Committee.

(c) While away from their homes or regular places of business in the performance

of services for the Committee, members shall be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in the Government service are allowed expenses under section 5703(b) of title 5 of the United States Code.

Sec. 10. (a) The Committee shall have a Director of Staff Personnel who shall be appointed by the Committee and who shall be paid at a rate established by the Committee.

(b) Subject to rules which may be adopted by the Committee, the Director of Staff Personnel may appoint and fix the pay of such staff personnel as he or she deems desirable.

(c) The Director of Staff Personnel and the staff of the Committee may be appointed without regard to the provisions of title 5, United States Code, governing appointments in the competitive service, and may be paid without regard to the provisions of chapter 51 and subchapter III of chapter 53 of such title relating to classification and General Schedule pay rates.

(d) The Committee may procure temporary and intermittent services by experts and consultants to the same extent as is authorized by section 3109(b) of title 5 of the United States Code.

(e) Upon request of the Committee, the head of any Federal agency is authorized to detail, on a reimbursable basis, any of the personnel of such agency to the Committee to assist it in carrying out its duties under this Act.

Sec. 11. The Committee shall continue in existence until terminated by Congress.

Sec. 12. (a) In order to promote the establishment and operation of solar energy demonstration farms within each State and territory of the United States, 80 percent of the funds authorized to be appropriated to carry out this title shall be utilized by the State departments of agriculture, with the assistance of the Extension Service of the Department of Agriculture, the State agricultural experiment stations, the land-grant colleges and universities, and local nonprofit research groups, to carry out the activities described in subsections (b) and (c).

(b) Each State department of agriculture shall—

(1) after the annual meeting of regional representatives and the Committee under section 8(a)(2), meet with its regional representative to determine which solar energy research projects will be demonstrated in that State under section 8(a)(2);

(2) establish (working with the Extension Service of the Department of Agriculture, the State agricultural experiment station, land-grant colleges and universities, and local nonprofit research groups) one large model farm—

(A) which demonstrates all the solar energy research projects determined to be useful and beneficial to that State under section 8(a)(2);

(B) which is located in that State on land owned by that State; and

(C) which includes other farming practices, such as raising livestock and crops, in order to provide a model of a farm using solar energy as a means of heating, cooling, drying crops, and providing other farming needs; and

(3) sell the crops produced on the model farm established under paragraph (2) and deposit any funds received from such sales into the miscellaneous receipts of the Treasury of the United States;

(4) provide tours of such model farm to farmers and other interested groups and individuals;

(5) determine the costs of energy, the income, and the total costs of such model farm; and

(6) annually compile a report concerning energy usage, income, costs, operating difficulties, and farmer interest with respect to the model farm and individual farm demonstrations established under this section and

shall submit the report, along with any recommendations concerning project changes and specific needs of such farm or demonstrations, to its regional representative who shall submit the report at the annual meeting of such representative with the other regional representatives and the Committee under section 8(a)(2).

(c) Within 1 year after the date on which a model farm is established in a State under subsection (b)(2), the State department of agriculture shall establish not less than 10 demonstrations of solar energy research projects which such department determines to be the most efficient or practicable research projects demonstrated on such model farm. Such demonstrations shall be carried out on farms which are already operating in such State and which the State department of agriculture selects. An owner of a selected farm who is willing to carry out such a demonstration shall enter into an agreement with the State department of agriculture. Such agreement shall include the following provisions among others:

(1) solar energy may be installed on such farm by the State department of agriculture;

(2) such owner will operate and maintain the equipment for a period of 5 years;

(3) during such period—

(A) the Extension Service of the Department of Agriculture will provide such owner with technical assistance concerning the operation and maintenance of the equipment;

(B) such owner will record all changes in energy usage and energy costs on such farm before and after the installation of the equipment;

(C) such owner will report such changes, along with any other appropriate findings concerning such equipment, to the State department of agriculture; and

(D) such owner will give tours to farmers and other interested groups and individuals and provide them with a summary of the costs and operation of the equipment; and

(4) at the end of such period, such owner will have all rights and title to the equipment.

#### DEFINITIONS

Sec. 13. For purposes of this title, the term "solar energy" means energy (other than energy derived from the fossilization process) obtained from solar radiation.

By Mr. MATHIAS:

S. 822. A bill to abolish the Renegotiation Board; to the Committee on Banking, Housing, and Urban Affairs.

#### RENEGOTIATION BOARD

Mr. MATHIAS. Mr. President, I send to the desk a bill to abolish the Renegotiation Board.

#### ECONOMY IN GOVERNMENT

I am committed to the principle of economy in Government. Taxpayers are fed up with waste and inefficiency. The hard-earned dollars of our citizens must not be squandered on boards and agencies which fulfill no useful purpose. The Renegotiation Board is such an agency.

Adm. Hyman Rickover, the father of the nuclear Navy, and one of the most effective managers in the complex world of defense construction, has called the Renegotiation Board probably the biggest sieve in Government.

My bill will scrap that sieve.

The Board is supposed to recover excessive profits from defense contractors—a laudable objective. The problem is the Board does not do its job. The Board's performance has been criticized time and again by congressional investigations and by the General Accounting Office. We have waited too long for

improvement. Now, rather than tinker with this or that aspect of the Board's structure in the hope of improving it, I propose we abolish it.

#### FIVE REASONS TO ABOLISH THE BOARD

There are at least five compelling reasons to abolish the Renegotiation Board.

First. The Board's method of operation does not permit the kind of careful scrutiny of individual defense contracts that would protect the Government from unfair profits. The Board does not audit on a contract-by-contract basis, or even by divisions or product lines of defense suppliers. It merely tests overall company profits on an annual basis which allows large companies to escape scrutiny by "averaging" their profits.

Second. Small businesses, as the 1975 report of the Joint Committee on Internal Revenue Taxation found, are "subjects of a disproportionate amount of the Board's determinations." A Government agency so biased in its operations does not merit our support.

Third. The Board uses inadequate measurements in its audits. The Board has consistently declined to use the measurements and findings of the Defense Contract Audit Agency, which are considerably stricter than the Board's.

Fourth. I believe that the best place to prevent excessive profits in defense contracts is in the contracting process itself, not some time later when the damage has already been done. We must focus our efforts on improving procurement and contracting practices within the Defense Department. To impose another layer of bureaucracy on the problem seems to me wasteful and counterproductive.

Finally, I question whether it is consistent with the principles of our free enterprise system to "renegotiate" contracts duly made. Under the pressures of wartime, when procurement decisions must be hastily made without competitive bidding, I can see a need to review defense contracts. But in peacetime, I cannot see why contract officers in the Defense Department should not be able to deal with competitive bids prudently and definitively.

#### A HISTORY OF SUBPAR PERFORMANCE

A review of the Renegotiation Board's history and practice reinforces these arguments.

When a Renegotiation Board was first formed in 1942, it was required to look for excess profits on a contract-by-contract basis. Six months later, that concept was changed to require only that any company's business be reviewed by the fiscal year. The contract-by-contract practice was killed because of the burden it placed on the Board's small staff. Thus, the most effective way of reviewing contracts for possible renegotiation was ruled out almost from the Board's inception. Indeed, the Board's name is misleading since individual contracts are never renegotiated or even given consideration.

The Board's annual report describes the actual process this way:

Under the statute, renegotiation is conducted not with respect to individual contracts but with respect to the receipts or accruals under all renegotiable contracts and subcontracts of a contractor in the contractor's fiscal year . . . Accordingly, aggregate

renegotiable profits in any given fiscal year of a contractor will often reflect the performance of several contracts in different stages of completion, and may thus result from an offset of losses or low profits on some contracts against high or even excessive profits on others. Thus fiscal year renegotiation, which deals with aggregate profits, is entirely different from price adjustment or redetermination of individual contract prices pursuant to contract provisions.

So nothing is done, as they say, "pursuant to contract provisions." The Board reviews the profit margins of companies that deal with the Departments of Defense, Army, Navy, and Air Force, the Maritime Administration, the Maritime Subsidy Board, the Federal Maritime Commission, the General Services Administration, the National Aeronautics and Space Administration, the Federal Aviation Administration, the Nuclear Regulatory Commission and the Energy Research and Development Administration. Contractors which have business with these agencies amounting to more than \$1 million a year must file reports with the Board.

As I mentioned earlier, a congressional report on the Board found that small businesses appeared "to be subjects of a disproportionate amount of the Board's determinations." The reason is simple. The Board's staff is inadequate to audit large companies, so it takes their reports at face value. Small companies, on the other hand, are intensively scrutinized, because their accounting procedures and company structures are readily accessible and easily inspected.

A 1970 Government Operations Committee report emphasized the advantage large companies and conglomerates have in averaging high and low profits on Government contracts in different lines of business. It pointed out that the structure of American corporations has changed since the enactment of the Renegotiation Act of 1951, so that a conglomerate can avoid excessive profit determinations on some defense or space contracts by offsetting high-profit items against lower profits or losses in other areas of business with the Government. That committee corroborated that most excessive profit determinations by the Board have been against smaller companies.

The Board's accounting practices also leave a good deal to be desired. It relies on Internal Revenue Service documents to measure profits and losses. But, they allow costs which are clearly not applicable to Government work, such as advertising and charitable deductions. The Joint Tax Committee report analyzes the problem this way:

Because of its staffing limitations, the Renegotiation Board does not generally conduct detailed examinations of a contractor's books of accounts. In effect, the Renegotiation Board "reviews" the contractor's segregation of sales and the composition and allocation of costs incurred with respect to renegotiable business. However, the Board does rely heavily upon audits by the Internal Revenue Service to verify the correctness of sales and tax allowable costs.

Accounting standards used by the agencies that do the original negotiations are much stricter than those used by the Board. In spite of that, the Board declines to use the resources of the De-

fense Contract Audit Agency and relies solely upon its own staff and somewhat irrelevant tax documentation.

In addition to these inadequacies, I question the basic rationale for the Board.

But, what are the alternatives? The House passed a bill in the last Congress which would extend the Board and correct many of its defects. That bill was not brought to the Senate for a vote. Therefore, the Board is not authorized to do new business.

The Board is thus in a state of limbo since its authorizing legislation ended on September 30, 1976. It is now handling only those cases which were opened during the period of authorization.

While the House bill has some good features, it nevertheless substantially maintains the Board's present structure and approach to "renegotiation." I believe that our best alternative is to abolish the Board and apply our efforts to insuring effective procurement practices within the departments that negotiate defense contracts. Any other approach will only relieve those departments of their ineluctable responsibility. The result will be to shortchange the American taxpayers.

Mr. President, I ask unanimous consent that the text of my bill be printed in the Record.

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

S. 822

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Renegotiation Board established under section 107(a) of the Renegotiation Act of 1951 (50 U.S.C. app. Sec. 1217a) is hereby abolished effective on the ninetieth day after the date of enactment of this Act.*

By Mr. RANDOLPH:

S. 823. A bill to require that buildings utilized by Federal agencies incorporate the best practicable measures for the conservation of energy and the use of solar energy systems; and for other purposes; to the Committee on Environment and Public Works.

#### LEGISLATION TO FOSTER ENERGY CONSERVATION IN FEDERAL INSTALLATIONS

Mr. RANDOLPH. Mr. President, the energy challenge to America is well known: We must develop domestic energy resources to supply a greater portion of our needs and we must lower our level of energy consumption. To meet this latter objective, I introduce today the Federal Buildings Energy Conservation and Solar Energy Utilization Act of 1977. It is similar to legislation introduced in the 93d and 94th Congresses.

Energy conservation must be a permanent consideration in all aspects of our lives. This means that we must examine customary building design and construction methods from this new perspective. It has been estimated that if all new buildings were electrically heated and properly insulated, there would be a 40-percent reduction in energy consumption.

The Federal Government has already instituted energy conservation programs in the facilities it owns.

The GSA's "Energy Conservation Design Guidelines for Office Buildings" set forth 185 ideas for conserving energy in

the design, construction, and operation of office buildings. The companion document, "Energy Conservation Guidelines for Existing Office Buildings" sets forth more than 300 recommendations.

The Federal Government owns and operates some 410,000 buildings in the United States. Application of the GSA guidelines could save between 20 and 30 percent of the energy consumed in the operation of existing office buildings. This would amount to a maximum savings of 1.0 to 1.5 million barrels of oil per day.

The 94th Congress witnessed enactment of the initial elements of a national energy conservation policy. Of particular concern for Federal buildings are two provisions of the Energy Policy and Conservation Act—Public Law 94-163.

First, under Federal energy conservation programs the 1975 act requires the development of a 10-year plan for energy conservation in buildings owned or leased by an agency of the United States. Implementation of a 10-year Federal energy conservation plan, which is conditioned on the use of authority under other Federal law, will involve major Federal expenditures. Moreover there is no assurance that energy conservation actions will be undertaken consistent with the GSA's guidelines.

Second, the Energy Policy and Conservation Act also contains energy conservation requirements affecting Federal procurement. The President is required to develop mandatory standards to govern Federal procurement policies and to assure their implementation.

In addition, in order to encourage the States to establish energy conservation programs, the 1975 Energy Policy and Conservation Act authorizes grants-in-aid. To be eligible for such Federal assistance, proposed State energy conservation programs must include provisions for: Mandatory thermal efficiency standards and insulation requirements for new and renovated buildings (except public buildings owned or leased by the United States); mandatory lighting efficiency standards for public buildings (except public buildings owned or leased by the United States); and mandatory standards and policies relating to energy efficiency to govern the procurement practices of such State and its political subdivisions; as well as programs to promote the availability and use of carpools, vanpools, and public transportation. In addition, the State energy conservation plan may include, first, restrictions governing the hours and conditions of operation of public buildings—except buildings owned or leased by the United States; and second, restrictions on the use of decorative and nonessential lighting, as well as transportation controls.

During the 94th Congress the Public Works Subcommittee on Buildings and Grounds, chaired by the able Senator from North Carolina (Mr. MORGAN) conducted oversight and legislative hearings on these energy conservation programs. Three major policy issues emerged:

First, greater emphasis is needed on energy conservation for new Federal facilities—the present program is principally concerned with existing buildings;

Second, provision is needed for the authorization and appropriation of funds to implement the Federal plan; and

Third, buildings leased by the Federal Government are specifically exempted from the State energy conservation programs.

Subsequent to these 3 days of hearings by the Public Works Subcommittee, the General Accounting Office—GAO—completed and transmitted to the Congress on August 19, 1976, its report on 77 military and civil installations around the country. The GAO found that, generally, the facilities had been active in attempting to conserve energy; however, the GAO concluded that much more can be done, stating, and I quote,

"Some installations had good energy program management, many did not. Deficiencies included a lack of conservation plans, an absence of any individual or group to manage the program, and a plethora of responsible individuals who did not devote much time to energy matters or receive or generate the information needed for management.

"At some locations energy conservation programs and practices were not reviewed by installations' energy conservation officers, internal audit, or other independent groups. Reviews by external groups from headquarters or intermediate levels also were missing.

"A need for greater leadership and more aggressiveness in promoting energy conservation existed. Energy conservation ideas were not exchanged between installations. Employee awareness of the desirability of conserving was not pushed. Other employees, although aware, were antagonistic or apathetic to the idea of cutting energy use.

"The Federal Energy Administration stated that overall the Government was meeting the President's energy reduction goals. However, many installations GAO visited were not achieving these goals. Compounding the situation was the continuation of a previously reported problem of measuring energy usage completely and accurately.

"Greater conservation efforts in vehicle operations were needed. The Government as a whole and many installations we visited had not met mileage reduction goals. A large number did not have complete and accurate mileage information.

"Acquisition of subcompact and compact vehicles was growing, but many locations had yet to acquire their first one. Some installations advocated carpooling; others did not.

"Although installations revised their lighting, heating, and cooling levels for buildings, over one-half did not attain the standards set forth in Federal regulations. Family housing and commercially leased buildings were particular problem areas. Engineering surveys were needed to focus on means to reduce consumption, and building modification projects had to be identified, funded, or undertaken.

"More attention needed to be given to modifying mission and training operations to conserve energy. For example, some installations revised aircraft operations to conserve energy; others did not. Major changes in operations would be lucrative areas for energy savings, but a determination has to be made at the highest level that potential energy shortages are important enough to warrant such modifications."

Mr. President, the GAO report entitled, "Energy Conservation at Government Field Installations—Progress and Problems," recommends that the Federal Energy Administrator, in conjunction with the Administrator of General Services and the heads of other Federal departments and agencies, should undertake a number of actions to strengthen the

Government's energy conservation program, such as the following, and I quote:

**Program management:** First, promote good energy program management procedures and practices at Government installations; Second, reassess the adequacy of energy conservation goals;

Third, make reviews and inspections of energy conservation activities; and

Fourth, stimulate employee awareness of the need for energy conservation and attempt to negate employee apathy and antagonism.

**Energy consumption data:** First, carry out GAO's prior recommendation that the Federal Energy Administration issue guidelines for use by Federal agencies in developing complete and accurate energy-use information systems and monitor closely the agencies' progress in developing their systems; and

Second, eliminate the inconsistencies between agencies in the treatment of program changes when making comparisons with the baseline period. Also, in presenting consumption data, distinguish between energy savings resulting from the energy reduction program and those resulting from major workload reductions.

**Vehicles:** First, enforce more strictly the Government regulations on mileage reductions and smaller car acquisitions;

Second, enforce the requirement for mileage reports on General Services Administration and agency-owned vehicles and commercially leased and privately owned vehicles authorized for official travel; and

Third, attain greater carpooling participation.

**Facilities:** First, enforce more stringently the Government's lighting, heating, and air-conditioning standards;

Second, make in-house and external engineering surveys of ways to reduce consumption; and

Third, identify, fund, and undertake facility modification projects that will increase energy efficiency.

**Mission and training:** First, delve more deeply into alternative ways to conserve energy in aircraft and ship operations.

Second, require installations to change mission and training operations to conserve energy except in those cases where the effective carrying out of objectives will be adversely affected.

Third, determine whether potential energy shortages are of enough significance to warrant cut backs in mission and training operations to be cut back.

Mr. President, the GAO concluded that "implementation of provisions of the Energy Policy and Conservation Act will further strengthen the conservation programs."

In response to issues raised during the 3 days of hearings, I introduced the Federal Buildings Energy Conservation and Solar Energy Utilization Act of 1977. This measure requires the Federal Government to exercise leadership in the development and implementation of energy conservation techniques in building construction and renovation. It would commit the Federal Government to a policy of energy conservation in all Federal and federally assisted construction.

In summary, the bill directs the GSA Administrator, after consultation with other agencies, to publish energy conservation guidelines and solar energy guidelines. Such guidelines will include information on all variable factors that may affect energy conservation and utilization, such as architectural features, site orientation, building composition, energy consumption practices, new techniques, and

energy expended in manufacturing and handling the basic materials used in construction, repair, or maintenance of such buildings. The measure directs that such guidelines shall be developed in accordance with the energy related studies and findings of the Energy Research and Development Administration and the Federal Energy Administration.

The measure also requires Federal agencies to prepare an energy utilization analysis and an energy-economic analysis for each building to be constructed, repaired or maintained under their supervision.

In addition, the bill directs that energy utilization and cost data be indicated in prospectuses submitted to the Congress.

The measure directs GSA, in consultation with FEA and the Office of Federal Procurement Policy, to survey all Federal procurement in excess of \$10,000 from the viewpoint of energy conservation, and report to the President and the Congress, recommending improvements.

The bill establishes an energy conservation demonstration program for retrofitting selected existing Federal, State, and municipal buildings. Provision is made for the selection of at least 40 federally owned buildings to be retrofitted. Federal matching grants also are authorized on a 3-to-1 basis for retrofitting State and municipal buildings.

The measure directs GSA to submit an annual report to Congress on activities under this act; it also directs each Federal agency to examine their buildings and report to the GSA on energy conservation improvements that could be made in their buildings, for incorporation in the annual report.

The measure authorizes such funds as necessary to carry out various provisions of the act.

Mr. President, I ask unanimous consent that S. 823, the Federal Buildings Energy Conservation and Solar Energy Utilization Act of 1977, be printed in the RECORD.

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

## S. 823

*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 "Federal Buildings Energy Conservation and Solar Energy Utilization Act of 1977".*

SEC. 102. (a) The Congress finds that—

(1) the utilization of energy in buildings, including Federal buildings and federally assisted buildings, has a significant impact on the consumption of energy in the United States;

(2) the energy conservation practices adopted for the design, construction, renovation, and operation of these buildings will have a beneficial effect on the overall supply of energy;

(3) energy utilization in the operation and maintenance of these buildings over their economic life must be considered, in addition to the initial cost of such buildings;

(4) the design of these buildings must take into consideration the efficient use of energy over the economic life of the building;

(5) the procurement of solar heating and cooling systems for use in Federal buildings in connection with demonstrations of solar energy applications for such buildings under

this Act should help to create a market for such units generally; and

(6) that the national costs and benefits accruing to the United States from the use of solar energy systems and conservation technology extends beyond the direct economic tradeoffs of the energy life cycle cost analysis to include the preservation of non-renewable resources, the reduction of environmental impacts of energy production and utilization, and the reduction of oil imports.

(b) The Congress declares that it is the policy of the United States to assure that the best practicable energy conservation and utilization practices and solar energy technologies are employed in Federal and federally assisted buildings.

## DEFINITIONS

SEC. 103. As used in this Act, the term—

(a) "Federal agency" means an executive department, a Government corporation, or an independent establishment in the executive branch;

(b) "Federal building" means any building which is constructed or renovated by a Federal agency, or which is leased by a Federal agency and more than 66 per centum of the net assignable area of which is used by a Federal agency;

(c) "major building" means any building of twenty-five thousand or more square feet of usable floor space;

(d) "major Federal building" means a major building which is constructed, renovated, or acquired by or on behalf of a Federal agency, or which is leased by or on behalf of a Federal agency on or after the date of enactment of this Act, and more than 66 per centum of the net assignable area of such building is to be used by a Federal agency;

(e) "federally assisted building" means a building constructed in whole or in part, other than by a Federal agency, with Federal funds or with funds guaranteed or insured by a Federal agency;

(f) "federally assisted major building" means a major building constructed or renovated in whole or in part, other than by a Federal agency, with Federal funds or with funds guaranteed or insured by a Federal agency;

(g) "existing building" means a building (other than a privately owned residential structure) which is owned by the United States or which is leased by a Federal agency as of the date of enactment of this Act, and more than 66 per centum of the net assignable area of which is used by a Federal agency on or after the date of the enactment of this Act;

(h) "initial cost" means the cost of construction, and in the case of a major building the cost of construction or renovation;

(i) "economic life" means the projected useful life of a building;

(j) "initiated" means, with respect to construction or renovation, that offers or proposals for the construction or renovation work have been solicited or invited by the responsible Federal agency or its grantee, or the lessor in the case of building leased by a Federal agency; and

(k) the term "solar energy" means direct and indirect solar radiation and intermediate solar energy forms, as further defined in the Solar Heating and Cooling Demonstration Act of 1974 (42 U.S.C. 5501, Public Law 92-409) and the Solar Energy Research, Development, and Demonstration Act of 1974 (42 U.S.C. 5551, Public Law 93-473).

## ENERGY CONSERVATION AND SOLAR ENERGY GUIDELINES

SEC. 104. (a) (1) The Administrator of General Services, in consultation with the Administrator of the Federal Energy Administration, Administrator of the Energy Research and Development Administration, the Secretary of Defense, the Secretary of Commerce, acting through the Director of the

National Bureau of Standards, the Secretary of Health, Education, and Welfare, the Secretary of Housing and Urban Development, and the Administrator of Veterans' Affairs, shall, not later than one year after the date of enactment of this Act, publish energy conservation guidelines (including energy management guidelines) and solar energy guidelines for use in the design, construction, renovation, and operation of certain categories of residential, office, commercial, institutional, and other buildings, including the procurement of goods and services for such categories of buildings.

(2) Such guidelines, within one hundred and eighty days after issuance, shall take effect with respect to Federal buildings, federally assisted buildings, major Federal buildings, and federally assisted major buildings on which construction or renovation is initiated after the effective date of the guidelines and related procurement of goods and services.

(b) The energy conservation guidelines published pursuant to this section by the Administrator of General Services shall include information on those variable factors which may affect energy conservation and utilization, including—

(1) architectural features and site orientation of buildings to make the most efficient use of sunlight and other natural phenomena;

(2) buildings configuration and composition (including the usage of glass and insulation), illumination levels, electrical distribution systems, and the elimination of excessive fenestration;

(3) energy consumption practices in heating, ventilation, air-conditioning, and service water systems;

(4) new techniques for energy supply, generation, and transmission; and

(5) to the extent feasible, the energy expended in the development processing, manufacture, and transportation of basic materials used in the construction, renovation, and maintenance of such buildings.

(c) The solar energy guidelines published pursuant to this section by the Administrator of General Services shall be developed in accordance with the energy-related studies and findings of the Energy Research and Development Administration and the Federal Energy Administration.

(d) The Administrator of General Services may, in consultation with the Administrator of the Federal Energy Administration, Administrator of the Energy Research and Development Administration, the Secretary of Defense, the Secretary of Commerce, acting through the Director of the National Bureau of Standards, the Secretary of Health, Education and Welfare, the Secretary of Housing and Urban Development, and the Administrator of Veterans' Affairs, at periodic intervals amend or revise the guidelines published pursuant to this section, and such amendments or revisions shall take effect as determined by the Administrator.

(e) In the development of energy conservation guidelines pursuant to this section, the Administrator of General Services is authorized to consult with and utilize the services of private individuals, institutions, and organizations, including, but not limited to, professional engineering and architectural societies, private standard-setting bodies, trade associations, and consumer interest organizations.

## ENERGY ECONOMIC AND UTILIZATION ANALYSES

SEC. 105. (a) Each Federal agency shall follow energy conservation guidelines and solar energy guidelines established pursuant to section 104 of this Act.

(b) Each Federal agency having authority over the construction of any Federal building or federally assisted building or the construction or renovation of any major Federal building or any federally assisted major

building shall require the preparation of an energy utilization analysis and an energy-economic analysis for such building consistent with applicable guidelines issued pursuant to section 104: *Provided, however*, That in the case of Federal buildings and federally assisted buildings, each Federal agency may for a category or type of building, including residential buildings, determine that the energy conservation benefits to be derived from an energy utilization analysis or an energy-economic analysis do not justify the expense for either, or both, such analysis, in which such analysis shall not be required under this subsection. In the case of residential buildings that determination shall be made taking into consideration the size of the residential development involved.

(c) Any energy utilization analysis performed pursuant to this section with respect to any building shall consist of an evaluation of the efficiency of the energy consuming systems (including, but not limited to, the heating, ventilating, air-conditioning, and lighting systems) and components thereof by demand and type of energy (including the internal energy load imposed on a building by its occupants, equipment, and components, and the external energy load imposed on a building by climatic conditions). Such energy utilization analysis shall include, but not be limited to—

(1) an evaluation of two or more energy system alternatives;

(2) the simulation of such energy consuming system over the anticipated range of operation of the building for a year's operating period considering the variable occupancy and operating levels of the building, including illumination levels;

(3) the evaluation of the energy consumption of component equipment in each energy system considering the operation of such components at both full and part load conditions as well as rated outputs;

(4) consideration of energy management procedures; and

(5) consideration of the interior and exterior design of the building, including the insulation, fenestration, site orientation, and shape, that will affect the efficient utilization of sunlight;

(6) consideration of the construction materials to be used in such building, including the extent to which such materials reduce the energy requirements of such building;

(7) consideration of new techniques for energy supply, generation, and transmission, including on-site total energy systems;

(8) an identification and qualification of sources of heat loss or heat gain with respect to such building;

(9) in the case of a proposed acquisition of a building, recommendations for the improvement of the thermal efficiency of such building; and

(10) in the case of a proposed renovation of a building, an estimate of the impact of such alteration on the energy requirements of such building.

(d) Energy-economic analysis performed pursuant to this section shall include consideration of—

(1) the economic aspects of the energy utilization analysis performed for such building pursuant to subsection (c) of this Act;

(2) the initial cost of each energy-consuming system being compared and evaluated;

(3) the annual and projected cost of maintaining and operating each energy-consuming system (including the cost of all utilities) over the entire range of anticipated operation of such building over the economic life of such building;

(4) the average replacement cost of each energy consuming system expressed in annual terms for the economic life of the building;

(5) the coordination and positioning of the building on its physical site;

(6) the building composition and configuration, including the amount and type of fenestration and the amount of insulation incorporated in the building;

(7) the estimate of future inflation rates, based on historical economic trends; and

(8) an estimate of the future costs of depletable resources.

(e) If discount rates are employed in calculating the energy economic analysis with respect to any building, the assumed rate shall take into account both the current Federal prime interest rate as determined by the Federal Reserve Board and the best available estimates of future inflation rates.

(f)(1) The energy consuming system or combination of systems shall be selected for each Federal building and federally assisted building, taking into consideration the energy-economic analysis performed for such building under this section.

(2) In the selection of locations for new Federal and federally assisted buildings the Administrator of General Services and Federal agencies shall consider the proximity of such buildings to existing and planned mass transit facilities.

(3) Each Federal agency shall make, and submit to the Administrator of General Services for use in carrying out the purposes of this Act, an energy utilization analysis and an energy-economic analysis for any building to be constructed, renovated, acquired, or leased by it or for its use.

(4) No major component of a heating, ventilating, air-conditioning, lighting, or other energy-consuming system for any building, and no other item or equipment having as one of its primary purposes the generation, utilization, or conservation of energy in or for any building, shall be purchased from any person by any Federal agency unless such person has submitted, along with or prior to the execution of the purchase contract, an energy utilization analysis and an energy-economic analysis with respect to such component, item, or equipment.

(g) The energy utilization analysis and energy-economic analysis required by this Act, included specific data relating to the consumption, efficiency, and cost, of energy for any building subject to this Act shall be included in any prospectus submitted (with respect to such building) by a Federal agency to the Congress, including any prospectus submitted by the Administrator of General Services to the Committee on Environment and Public Works of the Senate and the Committee on Public Works and Transportation of the House of Representatives under section 7 of the Public Buildings Act of 1959 (40 U.S.C. 606): *Provided, however*, That such prospectus shall incorporate the findings of such analyses (including the optimum system or combination of systems based on such analyses) into the plans and specifications for such building.

(h) Nothing in this Act shall preclude the demonstration of experimental energy systems.

(i) Section 305(a)(2) of the Energy Conservation and Production Act (42 U.S.C. 6834) is amended to read:

"(2) Such new building has been determined, pursuant to any applicable approval process described in subsection (b) and pursuant to certification by the design architect and engineers of record, to be in compliance with such final performance standards (Certification will be accomplished by an energy utilization analysis required by this Act, including specific data relating to the consumption and efficiency of energy for the building. Commercial computer energy utilization analysis programs may be used as the basis of certification); or"

(j) Section 306 of the Energy Conservation and Production Act (42 U.S.C. 6835) is redesignated Section 306(a) and the following new subsection inserted thereof:

"(b) the procedures adopted by the heads of each Federal agency responsible for the construction of any Federal building shall include certification by the design architect and engineers of record to be in compliance with applicable final performance standards. Certification will be accomplished by an energy utilization analysis required by this Act, including specific data relating to the consumption and efficiency of energy for the building. Commercial computer energy utilization analysis programs may be used as the basis of certification."

#### FEDERAL INITIATIVES

SEC. 106. (a) Section 381(a)(1) of the Energy Policy and Conservation Act (42 U.S.C. 6361) is redesignated subsection 384(a) and the following new subsection inserted in lieu thereof:

"(b) The Administrator of General Services, in consultation with the Director of the Office of Federal Procurement Policy and the Administrator of the Federal Energy Administration, is directed to make a study and survey of all Federal agency procurement in excess of \$10,000, from the viewpoint of energy conservation, and report pursuant to subsection (c) to the President and to the Congress the results of such study and survey, together with such recommendations as he may have of measures to assure that energy conservation is a major consideration in Federal agency procurement policies and practices."

(b) The Energy Policy and Conservation Act (42 U.S.C. 6201) is further amended by inserting "Energy Conservation Plan for Federal Buildings" before the redesignated subsection 384(a) and by amending section 384 to read as follows:

"Sec. 384. (a) The President shall develop and, to the extent of his authority under other law, implement a ten-year plan for energy conservation with respect to buildings owned or leased by an agency of the United States. Such plan shall include mandatory lighting efficiency standards, mandatory thermal efficiency standards and insulation requirements, restrictions on hours of operation, thermostat controls, and other conditions of operation, and plans for replacing or retrofitting to meet such standards.

"(b) (1) Each Federal agency shall conduct an inventory and examination of buildings under its custody or control and report to the Administrator of General Services, not later than one year after the date of enactment of this Act, and annually thereafter, on improvements that can be or are being made to assure that such buildings will utilize the best practicable measures for energy conservation and the use of solar energy systems consistent with energy conservation guidelines and solar energy guidelines issued pursuant to this Act.

"(2) The Administrator of General Services shall coordinate such inventory and examination of buildings and prepare a consolidated report to the Congress pursuant to this section. Such report shall set forth detailed plans and specifications for incorporating such improvements in those buildings, including (A) a description of equipment, methods of construction, and operating practices used to achieve energy conservation, and (B) comparisons of energy consumption and costs for buildings in which such equipment, methods or practices will and will not be employed.

"(c) The President shall submit to the Congress an annual report concerning all steps taken to implement this section together with recommendations, including schedules, for the appropriation of funds necessary to achieve the purposes of the Federal Buildings Energy Conservation and Solar Energy Utilization Act of 1977."

#### FEDERAL PROGRAM

SEC. 107. (a) Within ninety days after the enactment of this Act, the Administrator

of General Services, in consultation with the Director of the National Bureau of Standards, shall establish procedures for identifying existing buildings as candidates for retrofitting with energy conservation equipment and systems for the purpose of decreasing the cost of supplying such buildings with energy for climate-conditioning, water-heating, lighting, and other major uses of energy. In developing such procedures the Administrator and the Director shall consult with other Federal agencies and appropriate professional architectural and engineering societies as required to insure a broad perspective and maximum utilization of professional expertise.

(b) The Administrator of General Services shall, within six months after the date of enactment of this Act, select no fewer than forty federally owned buildings as candidates for retrofitting with energy conservation equipment and systems. The buildings shall be selected so as to offer a wide range of geographic and technological circumstances and opportunities for implementation of energy conservation and solar energy measures which can be justified on the basis of an energy-economic analysis.

(c) The Administrator of General Services shall, within six months after the date of enactment of this Act, solicit proposals for retrofitting each building identified in subsection (b) of this section with energy conservation equipment and systems. On the basis of the proposals received in response to his solicitations, the Administrator, in consultation with the Director of the National Sciences Foundation, is authorized to award contracts for the design and installation of energy conservation equipment and systems in any or all of the federally owned buildings identified in subsection (b) of this section. In addition to the cost and estimated effectiveness of the proposal in achieving energy conservation, the potential for a novel and innovative approach to be of particular value in wide application shall be a factor in awarding contracts.

(d) Grants for Federal buildings shall be for the full cost of the contract, within the limit of funds available, but not to exceed \$1,000,000 for any one building.

#### STATE AND MUNICIPAL PROGRAM

SEC. 108. (a) Governors of the fifty States and executives of municipalities may submit to the Administrator of General Services requests for grants for retrofitting of buildings owned by their respective States or municipalities. Requests for grants shall be submitted to the Administrator, and shall include, in accordance with procedures published by the Administrator in the Federal Register, a description of their State or municipal awards panel, the criteria and procedures by which it will select proposals for awards, and an identification of the State or municipal buildings for which grants are to be sought.

(b) The Administrator is authorized to allocate grants to States and municipalities from funds appropriated for those purposes, in accordance with criteria for State and municipal programs established pursuant to this section.

(c) Grants to States and municipalities shall be on a 3-to-1 Federal to State or municipality matching basis and may not be used for any other purpose. Grants may not exceed \$10,000,000 Federal share for any one State nor \$6,000,000 Federal share for any one municipality out of one year's appropriation under this Act for the purposes of this section.

#### AUTHORIZATION

SEC. 109/110. There is authorized to be appropriated to carry out the purposes of this Act not to exceed \$30,000,000 for the Federal program, \$60,000,000 for the State program, and \$60,000,000 for the municipal program, to remain available until expended.

By Mr. BARTLETT (for himself and Mr. BELLMON):

S. 824. A bill to authorize and direct the Secretary of the Interior to convey the mineral interest of the United States to Oklahoma State University to certain lands in Oklahoma, and for other purposes; to the Committee on Energy and Natural Resources.

Mr. BARTLETT. Mr. President, I am introducing for my colleague Mr. BELLMON and myself, a bill to transfer to Oklahoma State University the mineral interests reserved by the United States in certain lands in the vicinity of Lake Blackwell, Okla.

In December 1954 the U.S. Government transferred to Oklahoma State University the surface and one-fourth of the mineral rights held by the United States at that time in the subject lands. The remaining three-fourths of the mineral rights were reserved by the United States.

The regents of the university desire to manage all of its properties in a coordinated and efficient manner. The property transfer accomplished by this bill would facilitate prudent management of these lands by the university and would enhance the timely development of any mineral resources which might underlie them.

Any revenues which might accrue to the university because of oil or gas development would, of course, be used to enhance the quality of higher education at the university, in Oklahoma, and in the United States.

The benefits which would result from the coordinated management and timely development of these lands will more than offset any potential revenue loss to the United States if the remaining, reserved mineral rights are retained.

I ask unanimous consent that the text of this bill be printed in the RECORD.

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

#### S. 824

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That the Secretary of the Interior is authorized and directed to convey to Oklahoma State University, by patent or such other document as he deems appropriate, all interest in minerals reserved to the United States in the following described lands located in the State of Oklahoma:

(1) Township Eighteen North, Range One East of the Indian Base Meridian

Section Two: Northwest quarter, South half,

Section Three: Entire,

Section Four: Northeast quarter, Southwest quarter of the northwest quarter, All of lot four in the northwest quarter excepting a tract in the northwest corner of lot four more particularly described as follows: Commencing at northwest corner thereof, about 26 rods by the M. E. Church; thence south along the east boundary of the church property 15 rods; thence west about 16 rods to the west line of said lot four; thence north 15 rods to the place of beginning, South half,

Section Nine: Northwest quarter,

Section Ten: North half, Southeast quarter,

Section Eleven: North half, Southeast quarter,

Section Twelve: West half, Southeast quarter;

(2) Township Nineteen North, Range One East of the Indian Base Meridian

Section Three: West half,

Section Four: Entire,

Section Five: Entire,

Section Six: Entire,

Section Seven: Entire,

Section Eight: Entire,

Section Nine: Entire,

Section Ten: West half,

Section Fifteen: A parcel of land in the northwest corner of the northeast quarter of the northwest quarter described as follows: Beginning at the northwest corner, thence south 466.69 feet, thence east 466.69 feet, thence north 466.69 feet, thence west 466.69 feet to the point of beginning, containing five acres, more or less, Northwest quarter of northwest quarter,

Section Sixteen: Entire,

Section Seventeen: Entire,

Section Eighteen: Entire,

Section Nineteen: North half, Southwest quarter,

Section Twenty: Entire,

Section Twenty-one: Entire,

Section Twenty-two: West half,

Section Twenty-six: North half of northeast quarter, North twenty-one rods of the south half of the northeast quarter, Northwest quarters,

Section Twenty-seven: North half, Southeast quarter,

Section Twenty-eight: Northwest quarter,

Section Twenty-nine: North half except

one acre in the northeast corner preserved for school purposes,

Section Thirty-two: Southwest quarter,

Section Thirty-four: Northeast quarter, South half,

Section Thirty-five: Northeast quarter;

(3) Township Eighteen North, Range Two East of the Indian Base Meridian

Section Seven: North half of southwest quarter;

(4) Township Nineteen North, Range One West of the Indian Base Meridian

Section One: Entire section except one acre in southwest corner,

Section Two: Northeast quarter, South half,

Section Three: South half,

Section Four: Southeast quarter,

Section Ten: North half,

Section Eleven: Entire, less twelve acres in the southwest corner thereof described as follows: Beginning at the southwest corner of section eleven; thence north along the section line 578.55 feet, thence east 903.5 feet; thence south 579.2 feet to the section line; thence west along the section line 903.5 feet to point of beginning, containing 148 acres more or less,

Section Twelve: Entire,

Section Thirteen: North half, Southeast quarter,

Section Twenty-four: East half,

Section Twenty-five: North half of the north half of the northeast quarter;

(5) Township Twenty North, Range One East of the Indian Base Meridian

Section Thirty-one: South half of northwest quarter, South half,

Section Thirty-two: South half of northeast quarter, Northwest quarter, South half except one acre in square out of southeast corner of lot five for cemetery purpose,

Section Thirty-three: Lots one, two, three, four, six, seven, and eight of north half.

SEC. 2. Mineral exploration and development of the lands described in this Act shall be considered a use for public purpose as required in subsection (c), section 32, Title III, Bankhead-Jones Farm Tenant Act (7 U.S.C. 1012(c)), as amended, if the funds derived from such exploration and development are used by Oklahoma State University for public purposes.

## ADDITIONAL COSPONSORS

S. 107

At the request of Mr. PEARSON, the Senator from Arizona (Mr. DECONCINI) was added as a cosponsor of S. 107, a bill to reform veterans' pensions, to avoid a reduction in veterans' pensions, concomitant with increases in social security benefits.

S. 243

At the request of Mr. NELSON, the Senator from Oregon (Mr. PACKWOOD) was added as a cosponsor of S. 243, a bill to amend the Small Business Act and the Small Business Investment Act of 1958.

S. 256

At the request of Mr. PEARSON, the Senator from Nevada (Mr. LAXALT) was added as a cosponsor of S. 256, a bill to regulate commerce to assure increased supplies of natural gas at reasonable prices for consumers, and for other purposes.

S. 274

At the request of Mr. THURMOND, the Senator from Ohio (Mr. GLENN) and the Senator from Delaware (Mr. BIDEN) were added as cosponsors of S. 274, a bill to prohibit unionization of the military services.

S. 388

At the request of Mr. BARTLETT, the Senator from Arizona (Mr. GOLDWATER) was added as a cosponsor of S. 388, to amend the Internal Revenue Code of 1954.

S. 503

At the request of Mr. BAKER, the Senator from South Carolina (Mr. THURMOND) was added as a cosponsor of S. 503, a bill to expand manpower services reductions for individuals and business.

S. 528

At the request of Mr. WILLIAMS, the Senator from Vermont (Mr. STAFFORD) and the Senator from Arizona (Mr. DECONCINI) were added as cosponsors of S. 528, a bill to require an employer which assumes the ownership or operation of a business to honor the terms and conditions of a collective bargaining contract.

S. 555

At the request of Mr. RIBICOFF, the Senator from Michigan (Mr. GRIFFIN), the Senator from Vermont (Mr. LEAHY), the Senator from New Jersey (Mr. CASE), the Senator from Kentucky (Mr. FORD), the Senator from Arizona (Mr. DECONCINI), the Senator from Hawaii (Mr. INOUYE), and the Senator from Oregon (Mr. HATFIELD) were added as cosponsors to S. 555, a bill to establish certain Federal agencies, effect certain reorganization of the Federal Government, to implement certain reforms in the operation of the Federal Government and to preserve and promote the integrity of public officials and institutions, and for other purposes.

S. 604

At the request of Mr. JAVITS, the Senator from Minnesota (Mr. HUMPHREY) was added as a cosponsor of S. 604, a bill to amend and improve the programs authorized under the Emergency Unemployment Compensation Act of 1974, and to extend such programs for 1 year, and for other purposes.

S. 705

At the request of Mr. JAVITS, the Senator from Colorado (Mr. HASKELL), the Senator from Missouri (Mr. EAGLETON), and the Senator from Iowa (Mr. CLARK) were added as cosponsors of S. 705, a bill to amend the Public Health Service Act to revise and strengthen the program under that act for the regulation of clinical laboratories.

S. 730

At the request of Mr. BAKER, the Senator from South Carolina (Mr. THURMOND) was added as a cosponsor of S. 730, a bill to amend the Natural Gas Act with respect to court review of Federal Power Commission orders pursuant to such act.

S. 737

At the request of Mr. BAKER, the Senator from South Carolina (Mr. THURMOND) was added as a cosponsor of S. 737, a bill to amend the Internal Revenue Code of 1954 to provide income tax incentives for the conservation of energy used to heat or cool residences.

S. 744

At the request of Mr. BARTLETT, the Senator from New Hampshire (Mr. DURKIN) was added as a cosponsor of S. 744, a bill to restore public accountability for decisions affecting the compensation of Members of Congress and other Federal officials.

## SENATE JOINT RESOLUTION 15

At the request of Mr. GARN, the Senator from Kentucky (Mr. HUDDLESTON) was added as a cosponsor of Senate Joint Resolution 15, a joint resolution to propose an amendment to the Constitution of the United States for the protection of unborn children and other persons.

## SENATE RESOLUTION 95 AND SENATE RESOLUTION 96—SUBMISSION OF RESOLUTIONS DISAPPROVING CERTAIN BUDGET DEFERRALS

(Referred to the Committee on Appropriations and the Committee on the Budget, jointly, pursuant to the order of January 30, 1975.)

Mr. DOMENICI (for himself, Mr. BAKER, and Mr. SCHMITT) submitted the following resolutions:

S. RES. 95

*Resolved*, That the Senate disapproves the proposed deferral of budget authority (deferral numbered D 77-52) for operating expenses for certain activities of the biomedical and environmental research program conducted by the Energy Research and Development Administration set forth in the special message transmitted by the President to the Congress on January 17, 1977, under section 1013 of the Impoundment Control Act of 1974.

S. RES. 96

*Resolved*, That the Senate disapproves the proposed deferral of budget authority (deferral numbered D 77-50) for operating expenses for certain research activities in the magnetic fusion energy program conducted by the Energy Research and Development Administration set forth in the special message transmitted by the President to the Congress on January 17, 1977, under section 1013 of the Impoundment Control Act of 1974.

Mr. DOMENICI. Mr. President, I am submitting today, on behalf of Senators

BAKER, SCHMITT, and myself, two resolutions whose purpose is to disapprove certain budget deferrals announced by former President Ford on January 17. These resolutions, if passed by the Senate, will free funds for use in the current fiscal year for important programs in magnetic fusion and biomedical and environmental research being carried on by the Energy Research and Development Administration. We have previously introduced a companion disapproval resolution, Senate Resolution 51, relating to ERDA's community assistance program.

The first of the disapproval resolutions introduced today addresses the Presidential deferral D-77-50. If passed, this resolution would free \$12 million in budget authority and \$6 million in budget outlays for additional work this fiscal year directed toward answering crucial questions concerning the usefulness of a future energy resource of unlimited potential, magnetic fusion. These funds will be applied in critical development areas such as confinement systems, materials technology, plasma physics, and reactor design, at various laboratories across the country.

Deferral D-77-52, the subject of our second disapproval resolution, affects \$8.2 million in budget authority and \$6.2 million in budget outlays, and reduces by one-half funds available for environmental policy analysis, the national coal utilization assessment, and various other multitechnology assessments. Of particular concern to me are proposed delays in funding of studies to assess the impact of energy resource development in communities and regions of this country that are unusually well endowed with energy resources. This deferral will affect ongoing ERDA programs in at least 10 States.

Mr. President, I am convinced that these two deferrals, as well as ERDA deferral D-77-51, which is the subject of our Senate Resolution 51, should be disapproved by the Congress. It was carefully considered congressional action, concurred in by the President, that made these funds available in the first place. It is unreasonable now that we should acquiesce in this unilateral and arbitrary action taken by the executive branch.

Mr. President, as my fellow Senators know, disapproval of a Presidential deferral by either House of Congress is sufficient to make the funds available as originally intended. It may be that the House of Representatives will act in the very near future on these deferrals. If not, however, I would urge my Senate colleagues to support our three disapproval resolutions.

## AMENDMENTS SUBMITTED FOR PRINTING

## ADDITIONAL JUDGESHIP—S. 11

AMENDMENT NO. 52

(Ordered to be printed and referred to the Committee on the Judiciary.)

Mr. GARN (for himself and Mr. HATCH) submitted an amendment intended to be proposed by them jointly to the bill (S. 11) to provide for the ap-

pointment of additional district court judges, and for other purposes.

Mr. GARN, Mr. President, on behalf of myself and my colleague from Utah, Mr. HATCH, I offer an amendment to S. 11, a bill to provide for the appointment of additional district court judges. This amendment will provide that the President shall appoint, by and with the advice and consent of the Senate, one additional district judge for the district of Utah. There are currently two Federal district court judges serving that district.

Most of us are aware of the growing burden being placed upon the Federal judiciary. This burden is attributable to many causes, but certainly the number and nature of the legislation passed by Congress is one of the most important factors in increasing litigation. The Speedy Trial Act is perhaps the best example of legislation which places a severe burden on the Federal courts, and it is a piece of legislation which has recently been referred to by Chief Justice Burger as he has pled for additional district judgeships and new judgeships in the courts of appeals. Some of the Chief Justice's remarks were inserted in the RECORD on January 10, 1977, by Senator McCLELLAN when he introduced S. 11, and I will not again refer to those remarks from Mr. Burger's year-end report. Instead, I will cite one paragraph from the Chief Justice's 1977 report to the American Bar Association, delivered in Seattle, Wash., February 13, 1977. The Chief Justice said:

... The Congress has taken no action on the obvious need for sixty-five additional judgeships badly needed for five years. All this time the growth of new filings has continued, and it is now imperative that we have, not sixty-five new judgeships, but approximately one hundred thirty-two—one hundred seven district judgeships and twenty-five circuit judgeships. I am hopeful now, with the election behind us, there will be no further delay in the creation of these desperately needed judgeships.

Let me also remind this body that the Chief Justice urges us to consider "judicial impact statements." We must do a better job of predicting the consequences of legislation on the workload of the judiciary. I believe, in some instances, this Congress and American society place too great a reliance on the judicial machinery, and I hope that that trend can be reversed in some areas. At the same time, we must see the facts as they are and realize that the legislation which passes this Congress each year depends in large measure on the courts for its enforcement.

On April 1, 1976, the Senate passed S. 287, which would have created 45 new district court judgeships. The bill was referred to the House Judiciary Committee, which reported the bill, with an amendment, on September 28, 1976. The House committee recommended 49 new district court judgeships.

The Senate committee established four criteria by which to judge the need for additional district judgeships. Districts which "met all or most" of the criteria were judged in need of one or more additional judgeships. Those criteria are listed on page 13 of the Senate report (No. 94-387) as follows:

(1) Either raw or weighted case filings are 400 or more per judge; and (2) terminations

are in excess of the national average of 358 per judge; and (3) the bench time averages 110 or more days per judge; and (4) the district has made efficient use of existing judges, supporting personnel, and procedural devices in order to cope with its existing workload.

The committee applied the criteria objectively except for certain large metropolitan districts. The Court allowed additional judgeships in these large districts without the necessity of meeting the above criteria.

The House committee—House report No. 94-1705—felt strongly that the Senate's report was an "enormous contribution to congressional understanding of Federal court manpower problems." However, the House committee did not strictly adhere to the Senate formula because it felt that the Senate formula did not necessarily produce the correct result in every district in which it was applied. The House report correctly points out that the Senate did not strictly follow the four criteria either. Therefore, both committees used the criteria as a useful starting point for analysis. In the words of the House report:

... like the Senate, the House Committee did not itself apply the formula strictly to each district. Rather, in some cases it was necessary to reach behind the screen of statistics to find a true picture of the needs of a particular district.

In the case of the U.S. District Court for the District of Utah, the statistics show 346 filings per judge during fiscal year 1976. This compares with the standard set by the committee of 400 filings per judge. During fiscal year 1976, the Utah district showed 348 terminations per judge and this number is just shy of the committee figure of 358. For the third criterion of bench time, the Utah district had 149 days per judge, which is about 35 percent higher than the committee threshold of 110 days per judge.

The fourth committee criterion requires efficient use of existing judges, supporting personnel, and procedural devices in order to cope with the existing workload. This criterion is subjective and facts cannot be put alongside it which yield a ready comparison. There are serious problems with the administration of the District of Utah. Perhaps the best statement on the Utah court situation was given by the Honorable David T. Lewis, Chief Judge of the U.S. Court of Appeals for the 10th Circuit, on May 18, 1976, when Judge Lewis testified in support of S. 1130. The judge's statement clearly shows that the Utah court has administrative problems. Progress can be made—there is no doubt about that—but the Utah court is in a unique dilemma. Our administrative problems are due, in large part, to the very fact that we have a two-judge district court and that the chief judge continues to serve as such although he is well beyond age 70. This predicament is attributable to a "grandfather clause" of a 1958 statute which provides an exception from the general rule for two-judge district courts. The general rule is, of course, that all judges must relinquish their chief judgeship at age 70.

The Utah situation is unique. We believe this amendment is justified because the Utah court has a workload level sufficient to meet two of the three objec-

tive criteria of the Senate committee and because the appointment of a third judge would alleviate the serious administrative problems posed by the "grandfather clause" and the irascible temperament of the chief judge.

I will not include Judge Lewis's full statement here, but I will see that the Judiciary Committee has it brought to their attention.

I may say, Mr. President, that although I have not communicated with Utah's present chief judge, Willis W. Ritter, on this particular issue, it is believed that Judge Ritter favors the appointment of a third judge. In a letter to the Honorable Quentin N. Burdick from Judge Ritter dated May 14, 1976, and printed in pages 204-206 of the hearing record on S. 1130, Judge Ritter states:

... creating a third district court judge for the district of Utah [is] a problem which does need long overdue congressional attention.

In the same letter, Judge Ritter calls the third-judge idea something that will prove "constructive and of lasting benefit" for Utah. Judge Ritter's letter was written in opposition to my attempt to have him adhere to the same laws applying to other chief judges, but I am happy to see that we can agree on the need for a third judge in Utah.

There will undoubtedly be some question as to the workload of the Utah court and its need for an additional judge. I have cited the statistics which demonstrate such need, but let me bolster those statistics with some comparisons. The Utah court exceeds by about 35 percent the third committee criterion, that is bench time per judge. This needs to be emphasized because the following comparisons will deal only with total filings and total terminations which are the first two criteria of the Senate committee.

Recently, the Director of the Administrative Office of the U.S. Courts transmitted to Congress the volume "Management Statistics for U.S. Courts, 1976." This very helpful document sets out relevant facts for the courts of appeals and district courts of the United States. The U.S. District Court for Utah is shown as 69th among all U.S. district courts in the number of total filings per judge and 62d among all U.S. district courts for total terminations per judge. The Utah district was not recommended to receive a third judge, however several districts with lower standings received recommendations for additional judgeships.

For example, the District Court for the District of Northern Indiana stands 71st and 63d in the standings; the Washington Eastern District stands 74th and 75th in the standings; the District for Eastern Oklahoma stands 84th and 81st in the standings. Each of these districts has been recommended to receive one additional district judge and those recommendations are now pending before the Judiciary Committee in amendment No. 40 to S. 11. Amendment No. 40 was introduced by Senator McCLELLAN on February 10, 1977, and contains the recommendations of the Judicial Conference of the United States.

There are other districts that rank below Utah but have also received recom-

recommendations for additional judges. The district for South Dakota is tied with Utah in the ranking for total filings, but slightly ahead of Utah for terminations. The districts of Minnesota, New Jersey, New York Eastern, and New York Northern, have all been recommended for additional judges but rank below Utah in total terminations per judge.

I understand that there are many and varied circumstances which compel the Judicial Conference to make recommendations for additional judges. For example, of the districts that I have compared with Utah, there are some which are large metropolitan districts and which have been singled out in the past for special consideration and there are some—that is Oklahoma—which have special circumstances and needs. This is precisely my point. The Judicial Conference and the Senate and House Judiciary Committees must use the established criteria as a beginning point. From that beginning point the committee must consider additional factors. These factors have been considered—obviously—in those districts which ranked lower than Utah for filings and terminations but which have received a recommendation for an additional judge.

Utah surpasses several districts in workload but has not been recommended for an additional judgeship. Utah has unique, and unfortunate, administrative problems. Problems of which many members of the Judiciary Committee are aware and for which hearings were held last year on May 18 on S. 1130. The amendment which we introduce today is designed to provide for Utah the level of judicial assistance commensurate with its needs.

#### NOTICES OF HEARINGS

##### COMMITTEE ON HUMAN RESOURCES

Mr. WILLIAMS. Mr. President, I wish to announce that the Committee on Human Resources has scheduled a hearing on Wednesday, March 2, 1977, at 10 a.m. in room 4232 Dirksen Senate Office Building, on the nominations of Peter G. Bourne of the District of Columbia to be Director of the Office of Drug Abuse Policy and Lee I. Dogoloff of Maryland to be Deputy Director of the Office of Drug Abuse Policy.

Persons wishing to testify or submit statements, please contact Lisa Walker, of the committee staff.

##### SENATE SELECT COMMITTEE ON SMALL BUSINESS

Mr. NELSON. Mr. President, I wish to announce that the Senate Select Committee on Small Business has scheduled a hearing on disaster relief legislation.

The hearing will be held on Thursday, March 3 in room 3302 of the Dirksen Senate Office Building at 9:30 a.m., and will be chaired by Senator HASKELL.

##### COMMITTEE ON HUMAN RESOURCES

Mr. WILLIAMS. Mr. President, I wish to announce that the Committee on Human Resources has scheduled a hearing on Thursday, March 3, 1977, at 9 a.m. in room 4232 Dirksen Senate Office Building, on the nomination of Mary Elizabeth King of the District of Columbia to be Deputy Director of the ACTION Agency.

Persons wishing to testify or submit

statements, please contact Lisa Walker of the committee staff.

##### POSTPONEMENT OF HEARING ON PRODUCT LIABILITY PROBLEMS AND S. 527

Mr. NELSON. Mr. President, I wish to announce that the hearing scheduled to be held by the Small Business Committee on "product liability problems affecting small business, and S. 527" on February 23, has been rescheduled for March 9, 1977. The hearing will begin at 9:30 a.m. in room 6202, Dirksen Senate Office Building, and will be chaired by the Senator from Iowa (Mr. CULVER).

#### ADDITIONAL STATEMENTS

##### AIRLINE COSTS AND PASSENGER FARES

Mr. PEARSON. Mr. President, on March 21, the Aviation Subcommittee of the Committee on Commerce, Science, and Transportation will begin 2 weeks of extensive hearings into the need for comprehensive legislative action to reform the regulation of this Nation's commercial air transportation industry.

The hearings will focus primarily on the two major airline regulatory reform proposals before the Congress: S. 292, sponsored by the distinguished minority leader and myself, and S. 689, sponsored by the distinguished senior Senators from Nevada and Massachusetts. Both measures provide for substantial changes in the Federal Aviation Act of 1958 so as to encourage more competition and rationalize carrier operation.

The consensus today indicates that the regulatory framework enacted some 40 years ago is no longer appropriate for the modern age of commercial aviation. The evidence suggests that the airlines could have—at least in recent years—operated at lower total cost per passenger and that passenger fares could have been lower. This evidence is further substantiated by a February 18 report to Congress by the Comptroller General of the United States entitled "Lower Airline Costs Per Passenger Are Possible in the United States and Could Result in Lower Fares."

The study is GAO's analysis, update, and extension of a study by Dr. Theodore E. Keeler—University of California, Berkeley—entitled "Airline Regulation and Market Performance." The Keeler study attempted to determine the effects of domestic airline regulation.

The conclusion and recommendation of the GAO study are as follows:

Based on this report, we believe that markets now served by the trunk airlines could be profitably served at a lower total cost per passenger, and that passenger fares could be lower as a result. The arguments for greater reliance on a more competitive market to determine services and prices are persuasive, but this report does not answer a number of questions about what might happen if the form of airline regulations were changed or if regulation were abandoned completely.

We recommend that CAB continue to work toward improving airline efficiency under its existing legislation by emphasizing higher load factors, higher seating densities, and the other factors identified in this report by increasing its reliance on competition to determine service and prices.

We also recommend that the Congress, as part of its current reexamination of the need

for economic regulation of the airline industry, provide to CAB legislative guidance defining current national objectives for air transportation, and the extent to which increased competition should be used to achieve those objectives.

Both CAB and the Congress should allow for reasonable transition periods to avoid undue disruption of the air transportation system.

Mr. President, perhaps this further evidence of the need for regulatory reform in the airline industry will prompt the Senate to act expeditiously on airline regulatory reform.

#### AMERICA'S GREAT LAKES PROGRAM: THE BUREAUCRATIC MESS IN THE UNITED STATES

Mr. NELSON. Mr. President, the International Joint Commission—IJC—on the Great Lakes recently conducted in Windsor, Ontario, Canada, a workshop on "Economic and Legal Enforcement Mechanisms" as they affect the Great Lakes. Several weeks ago, I agreed to give a speech to this meeting on the progress we have made and the problems we still face in protecting and enhancing the water quality of the Great Lakes. Due to my responsibilities as chairman of the Special Committee on Official Conduct, I had to cancel my appearance. A staff member represented me at the IJC meeting.

I believe my remarks entitled "America's Great Lakes Program: The Bureaucratic Mess in the United States" present new information on the direction and scope of this country's pollution abatement efforts. It calls for a rededication to previously established goals and new programs to solve old problems. I ask unanimous consent that my prepared remarks for the Windsor meeting of the IJC be printed in the RECORD.

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

##### AMERICA'S GREAT LAKES PROGRAM: THE BUREAUCRATIC MESS IN THE UNITED STATES

(An address by U.S. Senator GAYLORD NELSON to the Research Advisory Board of the International Joint Commission)

The United States is making disappointingly slow progress in its fight to protect and enhance the water quality of the Great Lakes. In the U.S., programs to upgrade and protect the environmental quality of the Great Lakes have, in my judgment, been weak, misdirected, and oftentimes non-existent. Simply put, the programs and policies America has adopted over the last ten years to save this magnificent and unique natural resource may be accurately described as "the bureaucratic mess in the U.S."

Seventy-one percent of the world's surface is water. Less than one one-hundredth of this is fresh water. And the Great Lakes contain 20 percent of this fresh water. The world's largest body of fresh water, a series of five great lakes that contain over 65 trillion gallons of water, continues to be degraded by man. Until very recently, we have had absolutely no idea what the long-term adverse, ecological consequences of this continued pollution will be on the biotic life support systems of the Lakes. Now we are beginning to get glimmers of understanding.

Over the course of the last 150 years, all the problems that have plagued the Lakes have been the direct result of man's ignorant tinkering with a massive ecosystem. Municipal and industrial discharges of raw or partially treated effluent continue to pollute

some of the cleanest water in the world. Agricultural runoff and large amounts of phosphorus accelerate the Lakes' natural aging processes. Toxic substances and pesticides poison the Lakes' fish, food chain, bottom sediments, and finally, the human population using the resource.

Shipping contaminates the water with oil and sewage. The opening of the Welland Canal introduced exotic species, the lamprey and alewife, into the lakes that have caused massive changes in the ecosystems of the Lakes. Reserve Mining continues to dump 67,000 tons of taconite tailings a day into Lake Superior despite strong scientific evidence that the ingestion of these tailings cause cancer. The residents of the north shore are now drinking specially filtered water while the Federal Government rushes to install advanced water treatment facilities to purify these communities' water supplies. Moreover, the Corps of Engineers' proposed extension of the winter navigation season raises the most fundamental questions of long-term adverse environmental impact. What is the impact of the Corps' ice cover removal program? Will the heating of the water disrupt or alter fish reproduction cycles? What are the impacts on the entire Lake ecosystem? The Corps has no answers to these questions. We must know before any expansion of the navigation season is authorized.

In less than 200 years, in less time than America has been a nation, a brief moment in terms of man's life on this planet, significant adverse changes in the Lakes' water quality have occurred. The responsibility for these changes rests solely with man.

This record should not be accepted as a harbinger of the future. The residence time of the water in the Lakes is long. In Lake Superior's case, 200 years long. Today's pollution becomes an immediate long-term problem that will adversely affect the entire chain of Lakes over the next several hundred years. Consequently, we cannot afford to waste more time. We must move rapidly and decisively toward achieving the goals and objectives contained in the Federal Water Pollution Control Act Amendments of 1972 and the 1972 Water Quality Agreements.

America has had problems in the past in meeting its obligations. We are making more progress now but we are still not moving fast enough. Furthermore, it is in our own vested interest to increase these efforts. Business and industry depend on the Lakes for shipping and water. Tens of millions of Americans depend on the Lakes for drinking water and recreation. A very large majority of the economic and social livelihood of the Upper Midwest is intrinsically tied to the continued health and well-being of the Great Lakes. To continue to degrade the biological productivity of these waters is to degrade the economic and social well-being of the heartland of the U.S.

In the United States, the most fundamental problem facing the Great Lakes is the Federal Government. Regrettably, for the past several years, there has been an inadequate national commitment to the protection of the Lakes within the EPA. There is a refusal to acknowledge that the Lakes are threatened and that this continued threat poses a serious national and international problem. Rather than recognizing the significance of these bodies of water, the EPA continues to view the Lakes as a regional problem that must be solved using only regional resources. This policy is dead wrong and must be changed.

The Lakes are in trouble today because Washington has paid too little attention to their problems. There has been little or no national leadership paid to the Lakes since 1972.

Washington seems to have forgotten that it has a strong moral and legal obligation to the Lakes. The Lakes are a unique natural resource belonging both to the U.S. and Canada. They are "great" not only in

their size, but in their beauty and power. The Great Lakes, like every other natural system, is not infinite. The Lakes are limited. Man cannot continually pollute without creating an adverse effect. Man cannot continually abuse a resource without degrading the resource.

However, these basic ecological lessons appear to have gone unlearned. Man has caused the problems. Man must have the will to save the Lakes. There is no one else to do the job.

The legal obligations of my country are clear and concise. Two international agreements concerning the Great Lakes have been negotiated. The 1909 Treaty and the 1972 Agreement place responsibilities on each country to protect and enhance the water quality of the Lakes. The 1972 Agreement deals exclusively with various aspects of water quality. Objectives were established; goals and timetables were set. Unfortunately, many of these goals have been subsequently ignored by both countries.

As a U.S. Senator representing a State that borders on two of the Lakes, Superior and Michigan, I am not proud to tell you this evening that the U.S. has not done its share in meeting its moral and legal obligations. I am not proud to tell you the Lakes have been victims of Federal neglect and shortsightedness. However, I will tell you that things are not going to remain the same. I intend to introduce a major legislative program that will change the way my Government views the Great Lakes.

The roots of the second problem, the failure of the EPA to establish a viable research program, once again lies with the misplaced priorities of the past Administrations.

In 1972, the Congress gave the EPA rather broad authority to establish a viable and meaningful research program for the Great Lakes. Section 104(f) of the 1972 Water Pollution Control Act Amendments specially establishes a Great Lakes research program. However, it seems to be based on determining impact, not understanding how the Lakes work.

Only a small amount of work has been funded under this statutory authority—it is a skeleton program. The intent of the Congress in drafting a specific research program for the Great Lakes seems to have been lost by the Washington EPA policymakers. According to the fiscal year 1978 budget submitted by the Ford Administration, the ongoing bare bones research effort will be cut by nearly 40 percent.

Moreover, Section 108 of Public Law 92-500 established a specific "pollution control in the Great Lakes" program. This Section of the law needs to be updated. For example, EPA should be the lead federal agency on all water quality matters. Under Section 108(d)(1), the Corps is given direct responsibility to conduct a Lake Erie demonstration program. This is clearly EPA's responsibility, not the Corps'. While some experts within the EPA suggest the answer is line item funding for research and line item budgetary support for a comprehensive Great Lakes program, specific statutory authority is needed if we are to achieve an active long-term research effort.

We know relatively little about the ecology of the Lakes. Yet, four years after Public Law 92-500 became law, four years after a specific research program was legislated, the Great Lakes research program has no line item budget. The entire program is continually at the mercy of Washington bureaucrats who determine the priority list for research funding on an annual basis.

In March 1975, the General Accounting Office (GAO), the investigative arm of the Congress, reported that at the current funding levels the U.S. would not be able to adequately support the water quality goals and objectives contained in the 1972 Water Quality Agreements. If the U.S. is to meet its

research, surveillance, and analysis obligations contained in this Treaty, more dollars and more manpower will have to be obligated on a line item, multi-year basis.

For example, during FY'77, the current budget cycle, Region V EPA will receive \$2 million for baseline ecological research. Its need is estimated at \$5 million. The surveillance and analysis (S&A) program is also being drastically underfunded. In FY'77, the S&A program will receive \$750,000 while its need is estimated at \$3.5 million.

We are not only spending too little on basic scientific research but misdirected priorities channel what funds exist into less important areas. A 1975 report to the Senate's National Ocean Policy Study states that \$176.2 million was expended by all federal agencies on Great Lakes studies during FY'74. Of this amount, only 5.9 percent was spent on research. Almost 60 percent was spent on navigation and transportation. If the water quality of the Lakes is to be improved, these priorities will have to be changed so that more money and manpower can be spent on basic ecological research.

While on a volume basis, municipal and industrial discharges comprise approximately 90 percent of the effluent emitted into the Lakes, a far greater danger is posed by the continued release into the environment of toxic and hazardous substances. Conventional treatment cannot remove these substances from the sewage. The continued discharge of these substances threatens human health, water quality, and the biotic productivity of the Lakes. The 1975 report of the Great Lakes Water Quality Board to the IJC recommendation correctly called for "substantial priority consideration" in this area.

The Board's report stated, "... as a matter of high priority source identification, monitoring, and control problems for persistent chemicals such as PCB, mirex, and mercury must be intensified."

As you may know, the 94th Congress enacted a toxic substances control law. This action culminated a five-year struggle between the Congress and the Administration. This new law speaks directly to the concerns raised by the IJC in its most recent report.

PCBs are a serious problem for all the Lakes. Lake Ontario has the dubious honor of containing the highest concentrations of this toxic substance. In the Wisconsin waters of Lake Michigan, the Wisconsin Department of Natural Resources has banned the commercial fishing of Lake trout and coho salmon because of PCB contamination. People throughout the region are warned not to eat fish coming from the Lakes more than once a week. State health officials in Michigan are now warning nursing mothers not to regularly eat fish taken from Lake Michigan.

PCBs are the third most widely distributed environmental pollutant. Most organisms in all the Lakes have PCB levels greater than those called for in the 1972 Water Quality Agreements' objectives. Samples of Lake trout taken near Isle Royale National Park in western Lake Superior exceed the U.S. Food and Drug Administration's (FDA) standard by three. Carp taken from Green Bay contain 51 parts per million of PCB, the highest concentration found anywhere in the Lakes. The FDA safety level is five parts per million. These levels also greatly exceed the Water Quality Board's recommendation. There is no indication of a downward trend in the contamination.

However, the U.S. will be making more rapid progress in curtailing the introduction of new sources of PCBs in the future. An amendment I offered in the Senate to the Toxic Substances Control Act will effectively ban the manufacture of PCBs in less than two years. This legislation requires: (1) the EPA within the next four months to issue regulations governing disposal of PCBs and labeling of products containing PCBs, (2) within the next ten months a ban of the manufacture, use, and distribution on non-

enclosed systems using PCBs such as paint, and carbonless carbon paper, (3) within the next 22 months a ban on all enclosed systems using PCBs, and (4) within the next 28 months a total ban on the manufacture of PCBs.

Since 1970 we have seen a 60 percent decline in mercury residue levels taken from fish in Lake Erie and Lake St. Clair. However, the levels currently found throughout the Lakes continue to exceed both the FDA's and Canadian Government's recommended minimums.

DDT levels in Lake Michigan fell dramatically in the 1969-1974 period. DDT levels in Lake Michigan are now within the FDA's guidelines. The levels in Lake Superior, however, have not decreased.

Residues of dieldrin, a widely used insecticide, first discovered in the Lakes in the early 1960s, has shown no decline even though Canada banned its use in 1969 and the U.S. in 1974.

Both countries face a new challenge on the toxic substance issue. For the last several years, attention has been almost exclusively focused on preventing toxic and other hazardous substances from entering the environment. Little attention and research has been devoted to getting the material out of the environment, once introduced. We have no idea whether it causes more danger to dredge the residues out or leave them in. If we do dredge them out, where do we put them?

Fourth, phosphorus continues to remain a major unresolved issue for the Lakes. The relationship between phosphorus and eutrophication was recognized as a significant problem crying out for attention when I first came to the Senate in 1963. In fact, one of the first bills I introduced, 14 years ago, called for the convening of a national commission to study the interrelationships between phosphorus and eutrophication in the Great Lakes. That legislation passed the Senate but was killed in the House.

There is general scientific agreement that phosphorus is the major cause in the acceleration of the natural aging process in the Great Lakes. There is no doubt that the major and significant controllable source of the phosphorus is detergents.

On October 16, 1963, I testified before the Senate Public Works Committee's Environmental Pollution Subcommittee on the question of phosphorus degradation of the Great Lakes. I said (in part):

"But the solution to this problem cannot be postponed. It grows worse every day and every hour. And if we continue to delay in facing up to it, we may discover some day that it is too late—that our natural resources have been destroyed to such an extent that they can never be restored again." Nine years later, after much dispute and disagreement, a first step was reluctantly taken. The Nixon Administration decided, despite all the evidence, not to support a phosphorus ban in detergents; rather, EPA proposed an extremely expensive program of requiring advanced phosphorus removal technology to be installed at municipal sewage treatment plants that discharged effluent into the Lakes. Enough phosphorus would be removed, the EPA argued in 1971, to solve the problem. The most recent evidence on this subject, compiled coincidentally by the EPA, strongly suggests that the Agency was wrong. It now seems clear that even implementation of advanced phosphorus removal technology will not remove enough phosphorus to protect the Lakes. Furthermore, the advanced methodology required for the removal of the phosphorus is very expensive and creates an additional problem of increased sludge disposal.

Every IJC water quality report since 1970 has recommended a ban on phosphorus in detergents used in the Great Lakes Basin. Each year the U.S. Government, the EPA, has refused to listen or take action on this recommendation. And I will be candid with

you, despite all this evidence, the question remains unresolved within the EPA today. Technical and scientific experts at the regional level are pushing hard for agency support of such a ban, a position that is entirely logical and totally supported by the latest scientific findings. This evidence, in my view, is overwhelming and conclusive. Moreover, Russell Train, former Administrator of the EPA, in a December 3, 1976 memo to the Region V Regional Administrator on this subject, said, "I was very concerned that our efforts this far, under PL 92-500, to carry out the terms of the Great Lakes Water Quality Agreement of 1972 had fallen so far short of the need in respect to eutrophication. . . ." Train continued on about the effectiveness of a detergent ban and concluded, "I believe that it is an effective method of achieving immediate improvements and should be considered throughout the Great Lakes Basin just as recommended by the International Joint Commission. . . ."

On the surface there seems to be an agreement, yet no action has been taken since this memo was drafted.

We need a uniform phosphorus ban for the Great Lakes Basin states, and we need it now. Since the EPA seems unwilling to listen to its own experts, it is obvious they will have to be prodded by the Congress. We need a piece of legislation for the Great Lakes that is modeled after the Minnesota Pollution Control Board regulation, a provision that sets a 0.5 percent by weight limit on the amount of phosphorus contained in cleaning agents and detergents. Implementing such a ban on a basin wide level, is the single most important action that should be taken to protect the ecological quality of the Lakes.

Fifth, another problem of significance that faces the U.S. and the Great Lakes is the municipal construction grant and combined sewer program.

The GAO estimates that the U.S. is three years behind the Canadians in constructing municipal secondary sewage treatment plants. Former President Nixon's illegal impoundment of \$9 of the \$18 billion appropriated for sewage treatment plant construction by the Congress in 1972 is directly responsible for at least half the delay. An additional year was lost in red tape while EPA revised its construction grant regulations.

According to the Water Quality Board's 1975 report, approximately 59 percent of the population of the U.S. within the Great Lakes Basin is currently served by secondary sewage treatment. When all the construction within this region that is now underway is completed, 94 percent of the populace will be served by secondary treatment. Full compliance with the secondary treatment requirements set by the Federal Water Pollution Control Act Amendments of 1972 is anticipated in the mid 1980s. Conversely, in Canada, 94 percent of the Great Lakes Basin populace is already served by secondary treatment or its equivalent. One hundred percent compliance is expected in 1977.

The cost of compliance is high. EPA now estimates that an additional \$62 million will be required to provide the secondary and advanced phosphorus standards for Great Lakes Basin municipal treatment plants.

In addition to the problems directly associated with the municipal sewage treatment plant construction program, we are faced with a larger and more expensive problem of storm water runoff and combined sewer overflow. A large number of municipal treatment plants now are capable of handling and processing dry flow discharges from their combined sewers. However, whenever there is a heavy rainfall, substantial amounts of raw sewage and runoff bypass treatment and are directly discharged in the Lakes.

Combined sewer overflow presents both countries with a major problem of considerable expense. Cooperation is needed and both countries should begin working together to

develop a program that speaks to this concern. EPA conservatively estimates that \$1 billion is needed in the Great Lakes Basin for construction of additional capacity and combined sewers.

Once again, the IJC correctly stated the problem and recommended the correct solution. "These efforts (accelerating the construction program)", the IJC said in 1975, "must be strengthened and in fact accelerated if the water quality objectives are to be achieved by the end of this century."

The IJC's 1975 assessment that "progress in implementing the terms of the 1972 Agreement has been generally slow, uneven, and in certain cases, disappointing," is unfortunately true. I don't believe we are repairing the damage quickly enough. Much more needs to be done.

National attention should be focused on the Great Lakes and national resources should be allocated to rapidly solving the policy and administrative problems that currently exist. When I return to Washington, I intend to introduce a three point legislative program to clean up "the mess in the U.S." I intend to press for early hearings and swift Congressional action on this package.

There is very strong public support for such a program to accelerate America's water pollution abatement effort. A Harris poll taken in late last November showed that 67 percent of the people surveyed considered water pollution a serious problem. The degree of concern expressed by this poll is up 16 percent over a similar poll taken a little over a year ago. Most of the people questioned by the Harris organization last November correctly believe the U.S. Government is not doing an adequate job to abate water pollution.

The first major component of my legislative program will focus national leadership on the complex problems that confront the Great Lakes. The three point package will settle the internal EPA problems and make the Great Lakes a national issue of high priority.

To begin this process, I intend to revise and reintroduce S. 2797, a bill I sponsored in the 93rd Congress that deals with the organization of the American half of the International Joint Commission. This legislation, if enacted into law, will: (a) establish a fixed five-year term of office for the American Commissioners, and (b) require that no more than two of the Commissioners be members of the same political party, making the American side bi-partisan.

This legislation will upgrade the stature of the Commission and strengthen its policy-making role. To be truly effective in recommending actions to the American Government, the Commissioners should have the full support and confidence of both the President and the Congress. S. 2797 will give the Commission that important support.

Second, I intend to introduce legislation to formally establish an Office of Great Lakes Research within the Region V EPA Headquarters in Chicago. This office will be charged with the responsibility to develop, coordinate, and implement a baseline ecological research program for the Great Lakes. The responsibility for such a program will rest with the Regional Office, not with Washington. I will propose a five-year authorization level of \$25 million, \$5 million a year for FY '78-FY '82. According to a confidential memo prepared by EPA, "to understand and protect the Great Lakes ecosystem, as called for in the Agreement, optimum funding would have to be provided." This five-year authorization represents EPA's estimate of that optimum funding level.

Moreover, I will press hard for a review of the EPA's surveillance and analysis program. We need to upgrade and expand this effort. I will propose that the Great Lakes S&A pro-

gram be funded at a \$2.5 million annual level for the five-year FY'78-FY'82 period. According to the confidential EPA memo, "while this funding increase will not achieve parity with the Canadians or fulfill the IJC's program, it would be a major step in the right direction." As you know, the S&A program primarily is intended to provide information to address water quality issues and to assess achievement of water quality objectives.

Currently a little more than one percent of the total Agency's Research and Development budget can be directly identified with the Great Lakes. When one considers that these Lakes represent 97 percent of the nation's contiguous fresh water storage, excluding Alaska and Hawaii, one cannot help to conclude that the extent of the R&D budget for the Great Lakes must be considerably expanded.

By establishing this office and securing funding, the Agency will be able to move ahead and expand its basic research program in the toxic and hazardous substances field. We need an effective program that will help us understand the ecology of the Lakes. We need an effective program to monitor and properly interpret the current status of the Lakes. We need a program that can effectively assess any adverse changes in water quality. And we need a program to develop strong abatement efforts. We do not have such a program now.

Third, I will introduce legislation to ban the use of phosphorus in cleaning agents and detergents in any of the Great Lakes Basin states. A 0.5 percent limit by weight limitation would be statutorily established by the bill. The legislation would become effective within six months of the date of enactment. The EPA would be directed to evaluate the feasibility and advisability of extending this ban nationwide and report back to the Congress.

The Nixon-Ford Administration's program of limiting the discharge of phosphorus by requiring advance and very expensive technology to be added to municipal sewage treatment plants will not stop the rapid aging and dying of these Great Lakes. This program has failed to save the Lakes. A new approach is needed.

Recent scientific studies have confirmed phosphorus as the Lakes' limiting factor. Excess phosphorus is the problem and detergents are the principle manmade source of the phosphorus. Studies done by the Chicago Metropolitan Sanitary District and the State of Indiana indicate that alternatives are readily available and depending on the hardness of the water, cost the consumer about the same.

This controversy has been continuing since the early 1960s. It is time we corrected a mistake in judgement and did something about it.

If this three point call for action becomes law, the U.S. will once again be full partners with Canada in a strong and vigorous program to clean up the Great Lakes. The moral and legal requirements are clear and cannot be disputed. More than adequate scientific and technical data exist to fully support the programs and policies contained in this proposed legislative program. All that is lacking is the will to commit the funds and manpower for the abatement program and research. The reform of the IJC and the phosphorus ban can be enacted with no direct cost to the Federal taxpayer. The additional research program and the acceleration of the municipal treatment and combined sewer programs can only be viewed as investments in the future.

It is obvious that these national treasures have enormous problems that require Federal attention. It is also clear that the Canadians have done a better overall job than the U.S. in meeting its moral, legal, and environmental obligations. This is a logical

time for the U.S. to make major changes in its attitudes and programs. I ask you to join with me in supporting this legislative package to save the Great Lakes from further degradation.

#### MOBILIZING MATURE MANPOWER.

Mr. PERCY. Mr. President, I would like to discuss briefly a valuable resource which we, in this country, are wasting each day. I am speaking of the talents of older Americans. More than 4,000 Americans reach the age of 65 each day. On retirement day they are automatically treated as "old" by employers, government agencies and society in general. Retired persons are denied the right to continue holding the job they spent many years learning and the job they know best.

People do not just suddenly become aged on their 65th birthday. People age gradually during their lifetime, some more rapidly than others. Growing evidence indicates that forced retirement accelerates the aging process. It has been proven that emotional, psychological and physical problems can be brought on or even aggravated when an older person has been forced to leave his job and remove himself from the job market.

Mandatory retirement results in an enormous waste of human talent. Polls have shown that thousands of workers in this country would prefer to continue to be productive members of society. According to several local court decisions, forced retirement may even be a violation of due process. The issue may eventually come before the U.S. Supreme Court, but if the judicial branch does not reckon with the issue of mandatory retirement, then Congress must.

A phased retirement policy should be considered. There is ample precedent in other countries for such a policy. Such a policy could reduce drastically the "retirement shock" experienced by millions of retired persons in this country. The time has come for us to address the injustices of mandatory retirement.

I recently learned about a retirement plan from a Washington, D.C. resident, Morton Weiss, which I think deserves mention. He calls his phased retirement plan, "Mobilizing Mature Manpower."

An article about Mr. Weiss' plan was published in the Cincinnati Enquirer. 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:

#### THE CREATIVE USE OF RETIREMENT

Just because a man hits 65 and leaves a payroll is no sign his brain or imagination ceases to function. Yet society's principal message to him, all too often, is simply, "go fishin'."

For some men (and their wives), enforced idleness is too much. Psychologists compare what sometimes happens to a business executive in retirement, for example, with the deep-sea diver for whom the pressure lifts too suddenly and the "bends" result.

Such groups as the American Association of Retired Persons have given the problem a lot of attention in recent years, of course. But a lot more, we believe, needs to be given.

So we were pleased to learn of an idea put forward in Washington by Morton D. Weiss, 71, a retired government research and

finance expert, for the creative use of retirees with lively minds and proven ability. Mr. Weiss' plan is simply this: Permit retirees from the scientific community and such agencies as the Commerce Department to rent office space at a nominal fee, in a private building downtown, then let them use it as they see fit.

Mr. Weiss' thesis is that able, creative minds, spent in many years on the job, "need time to reflect, and retirement gives them that time. But then they also need to come together, and when that happens, the results could be plans, projects and ideas in the national interest."

Maybe such an approach would prove impractical, though on its face it seems to have a lot of logic. In any case, Mr. Weiss, married to the former Dena G. Morgenstern of Cincinnati, is actively pursuing it with private interests in the nation's capital. The federal establishment has surely spawned many a "pilot project" with what seemed a lot less potential than his idea. Moreover, Mr. Weiss' experiment would cost a pittance of even the most humble federal undertaking.

We wish him well, then, in his proposed venture. Certainly not all good ideas from Washington have to flow from the public sector (and treasury).

#### ENDORSEMENTS FOR COMPREHENSIVE YOUTH EMPLOYMENT ACT

Mr. HUMPHREY. Mr. President, I am very pleased to bring to the attention of my colleagues two endorsements I recently received for S. 170, the Comprehensive Youth Employment Act of 1977, from Hoaliku L. Drake, director of the Office of Human Resources for the city and county of Honolulu, Hawaii, and from Mr. George E. Leonard, the president of the National Vocational Guidance Association.

No one knows the problems of youth unemployment better than the local mayors and city officials who daily confront the alienation of jobless youths, the drug addiction and crime which come out of youth unemployment, and the specter of youths wandering aimlessly while there is important work to be done. Mrs. Drake's letter describes the youth unemployment problem in Honolulu, and it could probably have been written by many other mayors or city officials throughout the rest of the country as well.

Mr. Leonard, on behalf of the National Vocational Guidance Association, which represents more than 10,000 counselors nationwide, wrote in strong support of this piece of legislation. I hope Congress will share the concern of these counselors about this critical problem and enact youth employment legislation swiftly.

Mr. President, I ask unanimous consent that Mrs. Drake's letter and Mr. Leonard's mailgram be printed in the RECORD.

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

#### CITY AND COUNTY OF HONOLULU, Honolulu, Hawaii.

Senator HUBERT H. HUMPHREY,  
Chairman, Joint Economic Committee, Congress of the United States, Washington, D.C.

DEAR SENATOR HUMPHREY: The implications for benefit to Honolulu's youth in your Comprehensive Youth Employment Act of 1977 are tremendous. I congratulate you on

the creative and thoughtful drafting of S. 170.

Our concern for our youth is particularly grave in the context of the unfavorable job market here. As young people become increasingly discouraged at their inability to find jobs, their alienation from society increases. All of our studies mark the strong correlation between the lack of employment opportunity and the increase in criminal behavior.

The City and County of Honolulu, comprising all of the island of Oahu, has a current unemployment rate of 8.8%. Figures for insured unemployed show persons under 25 as 22% of Oahu's unemployed. However, as this does not reflect the numbers of young people seeking employment for the first time, we estimate the actual unemployment ratio of our young people as being much higher than this. Particularly in the age group of 16-19 years old to which your legislation addresses itself, we would estimate close to 50% unemployed. The serious dangers in this alarm us.

For these reasons, the Bill you have introduced is of tremendous importance to us. We pray for its successful passage.

We are already starting planning so that we will have solid projects ready to go as soon as S. 170 becomes law.

We applaud your informed concern for the young people of the nation.

With Warmest Aloha,  
HOALIKU L. DRAKE,  
Director, Office of Human Resources.

HON. HUBERT HUMPHREY,  
Russell Senate Office Building,  
Washington, D.C.

The landmark legislation you have introduced as the Comprehensive Youth Employment Act of 1977 (S-170) represents a giant leap forward in regard to human resources policy which can benefit our youth.

The intelligence shown in the formulation of this legislation regarding coordination of agencies and personnel in both the public and private sectors is found from both theoretical and practical view points. Speaking for over 10,000 counselors serving at all educational levels in both sectors we stand ready to support the legislation, and to accept the challenge its alternate passage presents to our profession.

GEORGE E. LEONARD,  
President, National Vocational Guidance  
Association, a division of the American  
Personnel and Guidance Association,  
College of Education, Wayne State  
University, Detroit, Mich.

#### U.S. ENERGY DILEMMA

Mr. BELLMON. Mr. President, recently an article appeared in the Daily Oklahoman explaining how the American petroleum industry is responding to the challenge of our fuel-short times.

The article quoted the American Petroleum Institute as saying that the oil industry has increased its refining capacity by 51 percent over the past 10 years. This is not the work of an industry conspiring against the American people as some would have us believe. It is, instead, a product of one segment of our free enterprise system, striving to meet consumer demands.

I wish that I could say that we in government have responded as well to the energy needs of the American people. The natural gas crisis proves that we have not.

We have not adopted a national energy policy, but hopefully that will change in the coming months of this first session of the 95th Congress.

As is pointed out in the Oklahoman's

article, the Members of the two Houses must prepare and present to the people an energy policy that is realistic and unselfish. The policy must recognize the need for energy conservation and look to the future when we must utilize alternate energy sources since the time is coming when we will no longer be able to rely upon petroleum reserves which have powered this Nation for many decades.

Mr. President, because the Daily Oklahoman's article explains some of the basic problems facing the petroleum industry and our Nation as a whole and would, therefore, be helpful to my colleagues in the Senate, 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:

[From the Daily Oklahoman, Feb. 21, 1977]

#### FROM BAD TO WORSE

There is good news and bad news in the American Petroleum Institute's annual report for 1976, but the bad far outweighs the good.

First, two nuggets of good news. U.S. refinery capacity reached a new high of 16.1 million barrels a day, an increase of slightly more than 5 per cent over 1975.

And despite obstacles imposed by opposition on sites, air and water quality standards, and the enormous capital investment required, the American petroleum industry managed to boost total domestic refining capacity by 51 per cent over the past 10 years.

The past year also saw the industry compile its best drilling record since 1964, an indication that oilmen are responding to the challenge posed by increasing dependence on foreign sources.

An estimated 39,763 wells were completed, up about 7 per cent over 1975 and 50 per cent higher than the level of drilling activity in 1973 when the Arab oil embargo made the energy crisis a household phrase.

At that point, however, the good news runs out and the bad news starts flowing.

First, the United States was forced to rely on imports for 42 per cent of its oil consumption during 1976, an all-time high dependency mark. That represented an increase of 28 per cent over the level of crude oil imports in 1975.

And that's only the beginning of the bad news. U.S. production of crude oil and natural gas declined 2.8 per cent from the previous year's output—the sixth consecutive year of falling production despite increased drilling activity.

About one-fourth of all the wells completed during the year were exploratory—and 74 per cent of them resulted in dry holes. Overall, the success ratio of total drilling was 43 per cent for oil, 23 per cent for gas, and 34 per cent found nothing.

Meanwhile, the estimated average daily demand for petroleum products inched upward to a new peak of 17.4 million barrels daily after slight reductions in 1974 and 1975.

There is a message three-fold in those gloomy figures which all Americans, and especially the 95th Congress, should take to heart.

One is that practical and effective energy conservation must become a way of life for both individuals and industries. Another is that unrealistic and selfish minority interests should not be permitted to further delay the exploration and development of additional oil reserves both inland and offshore.

And finally, the figures argue convincingly that failure to embark upon development of alternate energy resources, particularly coal and nuclear power, will amount to national economic suicide.

#### ARTICLE III OF THE GENOCIDE CONVENTION

Mr. PROXMIRE. Mr. President, many people in opposition to the Genocide Convention believe that U.S. ratification of this treaty will destroy free speech in America. Article III specifies that five acts involving genocide shall be punishable. These acts are: The crime of genocide itself; conspiracy to commit genocide; direct and public incitement to commit genocide; attempt to commit genocide; and complicity in genocide. They fear that this article of the Convention will empower the Government to prevent citizens from exercising their constitutional right to speak as they please.

Two major flaws exist in this "freedom of speech" argument. First it overlooks the first amendment to the Constitution which specifically guarantees all Americans the right of free speech. Article VI says that the Constitution is the supreme law of the land. Acts of Congress and treaties are also the supreme law of the land when they conform to the Constitution. The U.S. Supreme Court and other Federal courts have consistently maintained that acts of Congress and treaties must conform to the Constitution and where they do not they are null and void. Thus the Genocide Convention cannot in any way abridge the freedom of speech guaranteed under the Constitution.

Second, the crime defined in article III of the convention is "direct and public incitement to commit genocide." To prohibit public incitement to commit genocide would not be an abridgement of free speech. It has long been recognized that the first amendment does not give a person the right to say anything he wants. A person cannot speak a libel. A person cannot give false evidence under oath. A person cannot incite others to commit any crime, whether murder, arson, or if this treaty is ratified and the implementing legislation is enacted, genocide.

Mr. President, perhaps with a clearer understanding of the provisions of article III, my colleagues will want to act more swiftly in ratifying this convention.

#### TRIBUTE TO MRS. KATHARINE E. BYRON

Mr. MATHIAS. Mr. President, the death of Mrs. Katharine Edgar Byron just after Christmas cast a pall on Marylanders during the final days of our Bicentennial year. Mrs. Byron, mother of my friend, neighbor and colleague Representative GOODLOE E. BYRON of Frederick, Md., was Maryland's first woman Member of Congress and she did the Free State proud.

Katharine Byron was a remarkable, vibrant woman whose death is a very great loss to all who knew her. But, of one thing I am absolutely certain, Mrs. Byron will never be forgotten. If part of immortality is the memories we leave with other people, I can personally guarantee a little piece of it to Katharine Byron. This indomitable woman provided me with what was certainly the most memorable experience of my youth.

On December 7, 1941, when the news of Pearl Harbor hit Haverford College, I and several other students left immediately for Washington. I will never forget our arrival at dawn the next day. There were machine gun emplacements at the Lincoln Memorial and at other strategic spots along the Mall where the temporary buildings leftover from World War I still housed the Navy Department.

I headed for the Congress and camped in Katharine Byron's office. I knew the President was coming to the Capitol to seek a declaration of war and I was determined to be present on that historic occasion.

The Capitol was in chaos. There was no established procedure for a joint session to hear the President ask for a declaration of war. But everyone in Washington and many, like me, from outside of the city had converged on the Capitol to participate in that momentous event.

Congresswoman Byron was more than equal to such a situation. She penned me a "To Whom It May Concern" letter and she and her able assistant Helen Potts—now Mrs. E. DeLong Bowman of The Plains, Va.—urged me to press forward.

I remember vividly walking through the tunnel from the House to the Capitol that day. Soldiers were stationed every 5 or 10 feet along the tunnel with bayonets fixed.

Although security was tighter than I have ever seen it since, such was the force of Mrs. Byron's name that her "To Whom It May Concern" letter got me past every barrier to the House Galleries. There was not a seat anywhere. But, the guard took one look at that signature on my letter and allowed me, against all rule and custom, to stand at the back of the gallery.

And so, thanks to the force of Katharine Byron's name alone, I heard President Franklin Delano Roosevelt pronounce the words, "December 7, 1941, is a day that will live in infamy \* \* \*"

I will never forget that experience. I will never forget Katharine Byron. And so that my colleagues may fully appreciate this amazing woman, I ask unanimous consent that the account of her life that appeared in the Frederick Post, December 29, 1976, be printed in the RECORD. This account includes the very moving words Mrs. Byron herself spoke in support of the declaration of war.

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

KATHARINE E. BYRON, STATE'S FIRST WOMAN CONGRESSWOMAN, DIES

Mrs. Katharine Edgar Byron, Maryland's first woman member of Congress and mother of 6th District Congressman Goodloe E. Byron of Frederick, died early Tuesday at her Washington, D.C., home. She was 74.

Mrs. Byron served in Congress from May 27, 1941, until Jan. 3, 1943, representing the 6th District of Maryland. She was elected to the House of Representatives in special balloting in May, 1941, and filled the unexpired term of her husband, Democrat William D. Byron, who died in a plane crash near Atlanta, Ga., three months earlier.

Running on a platform of carrying out her husband's programs, Mrs. Byron defeated Charles Stewart of Frostburg, but did not run for re-election in 1942. She stayed in Washington, but remained active in Western Maryland politics.

She was the daughter of Brigadier General

Clinton Goodlow Edgar and Mary McComas Edgar. Her grandfather, Louis Emory McComas, also represented Maryland's 6th District in Congress from 1883-1891 and was a U.S. Senator from 1899-1905.

Mrs. Byron was born Oct. 25, 1902, in Detroit, Mich. She attended the Liggett School, Detroit; Westover School, Middlebury, Conn., and Holton Arms School, Washington, D.C.

She moved to Williamsport in 1922 and married William D. Byron, who served in Congress from 1938 until his death in 1941. Mrs. Byron was president of the Parent-Teachers Association of Williamsport in 1935, chairman of the Red Cross flood disaster committee of Williamsport in 1936, town commissioner of Williamsport 1938-1940, and was elected to Congress in 1941.

Her election campaign and service in Congress was characterized by her advocacy of a strong position in opposition to Hitler's early aggression in Europe. Because of her advocacy of this position, she was chosen by Speaker Sam Rayburn to give one of five speeches on Dec. 8, 1941, in favor of President Franklin D. Roosevelt's request for a Declaration of War against Japan.

Her total dedication to her country is exemplified in this speech, as she said, "I am willing to give my sons to their country's defense. I am 100 percent in favor of avenging the wrong done our country and maintaining our country's honor. We must go into this thing to beat the Japanese aggressor. I shall do everything by voice, by vote, everything within my power to bring about this end."

She was a member of Christ Episcopal Church in Georgetown, the Army-Navy Club of Washington, D.C., the National Capital Democratic Club, the Arts Club, Washington, D.C., the Women's National Democratic Club, the Capital Democratic Club, and the Congressional Club.

She is survived by four sons, William D., James E., Goodloe E., and Louis McC. A fifth son, David, died in 1964. Her 17 grandchildren are William D. IV, Susan, Sandra, James E. Jr., Sally L., Keith, Catharine D., Goodloe E. Jr., Barton K., Mary McC., William McC., Susanne, Melissa, David W. II, Louis McC., Thomas McC., and Winston Scott Byron, and one great-grandchild.

Funeral arrangements are being handled by Wawlers of Washington, D.C. Friends may call at the Byron home at 3202 Scott Place, N.W., Washington, D.C. between 3-5 and 7-9 p.m. Thursday, Dec. 30. Services will be held at Christ Church in Georgetown at 11 a.m. Friday, Dec. 31. Interment will be at 2:30 p.m. at Riverside Cemetery, Williamsport.

#### RESULTS OF CEA COLD WEATHER STUDY

Mr. HUMPHREY. Mr. President, a lukewarm economic recovery has run into a very severe winter. Families will be spending more to heat their homes, many plants were temporarily closed and hundreds of thousands of workers suffered short-term unemployment. In an attempt to measure the quantitative impact of the cold weather, I asked the Congressional Research Service, CRS, of the Library of Congress to prepare an estimate of how much more consumers would spend on their home heating bills this winter compared to last. The CRS estimate, prepared by John W. Jimison, indicated that home heating bills would rise by \$8.4 billion.

Mr. President, I wanted to gage the administration's thinking on the impact of the cold weather on the economy. I asked Charles Schultz, Chairman of the Council of Economic Advisers, CEA, to give the CEA's best estimate.

According to a study that I received on February 21, 1977, home heating bills will rise by between \$2 and \$5 billion. The difference between the two figures reflects different assumptions about the weather—the lower figure is based on a return to normal temperatures in mid-February while the higher figure assumes the cold wave will persist throughout the remainder of the winter.

In addition to higher heating bills, the CEA study predicts that the cold weather will cause a loss of \$100 million in vegetables and \$50 to \$100 million in citrus fruit. Overall, the CEA projects that the real rate of growth in GNP will drop by one-half to 1 percentage point in the first quarter of 1977.

The CEA forecast remains basically optimistic. The Council expects that almost all the first quarter loss to GNP will be made up by the end of calendar 1977. But there are yet other problems ahead for the American economy. The relatively sanguine view of the CEA does not take account of possible floods this spring, drought in the West and Midwest, or the need to curtail production while the inventories of natural gas are replaced. Nor does the CEA analysis take account of the impact the cold weather may have on business or consumer confidence.

Mr. President, I remain apprehensive about what the cold weather may do to the economy. But the CEA study is a careful and useful first look at what the winter damage to the economy has been. I ask unanimous consent that the full CEA study be printed in the RECORD.

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

THE CHAIRMAN OF THE  
COUNCIL OF ECONOMIC ADVISERS,  
Washington, D.C., February 21, 1977.

HON. HUBERT H. HUMPHREY,  
U.S. Senate,  
Washington, D.C.

DEAR SENATOR HUMPHREY: I am sending along a copy of the Council of Economic Advisers' study on the economic impact of the cold weather we have experienced this winter.

The contents of this study are, I hope, responsive to the request you made to me for counsel on this matter. I hope the report is of use to you and to the Joint Economic Committee.

Sincerely,

CHARLES L. SHULTZE.

Enclosure.

ASSESSMENT OF THE PROBABLE EFFECTS OF THE  
COLD WEATHER ON THE PERFORMANCE OF THE  
ECONOMY IN 1977

#### SUMMARY

Assessment of the economic effects of the cold winter weather and of natural gas shortages is fraught with hazard. Weather prospects for the remainder of the winter are uncertain; data on plant shutdowns and curtailments of construction and other forms of economic activity during the first quarter are fragmentary; and the effects of the cold weather on business and consumer confidence remain problematical.

Based on such information as we have been able to glean, our tentative conclusions are these:

1. Production curtailments because of natural gas shortages and cold weather will have a significant, but largely temporary, depressing effect on total real output of goods and

services in the first quarter of this year. Real output will still rise appreciably, but the level for the quarter may be from 1/2 percent to 1 percent below earlier expectations. These production losses will be largely made up by the fourth quarter of 1977.

2. Because of additional consumer expenditures for fuels, and to a lesser extent because of higher food prices, consumer expenditures for other goods and services will rise slightly less during 1977 than had been anticipated. The magnitude will be quite small if normal weather prevails for the rest of the heating season and somewhat larger if abnormally cold weather returns.

3. Prices will increase somewhat faster in 1977 because of the cold weather. Increases in demands for fuels will lead to an increase in oil imports and hence to a rise in the average price of a barrel of oil, and to some increase in prices of gasoline and heating fuels. Emergency sales of natural gas may lead to a small rise in natural gas prices. Because of crop damage in Florida, fresh fruit and vegetable prices will be sharply higher through the remainder of the winter and early spring months. As a rough estimate, the annual rate of increase in consumer prices during the first half of this year may be about 3/4 of one percent higher because of the cold weather than had been anticipated. The underlying rate of inflation, however, is unlikely to be affected by these developments, and remains in the range of 5 to 6 percent.

4. The dampening effect on the overall rate of economic expansion from these developments will be mild. If temperatures stay close to normal for the rest of the heating season, the real GNP by the fourth quarter of this year is not likely to be accepted significantly. If abnormal cold returns for a lengthy period, the fourth quarter effect could be observable, but still modest—perhaps reducing real GNP in that quarter by about 0.2 percent below earlier projections.

This assessment makes no allowance for possible ice jams and floods related to the cold weather that may develop this spring, or for continuing shutdowns of industrial plants—to restore inventories of natural gas—on a significant scale after April. Also, the estimated effect on consumer prices makes no allowances for developments unrelated to the cold weather. There are substantial uncertainties at the present time with regard to the effects on agricultural production and food prices of water shortage in the West and the potential for drought in the grain belt.

#### WEATHER ASSUMPTIONS

Estimates of the effects of cold weather on usage of fuels depend on the extent of subnormal temperatures, the time period over which subnormal temperatures persist, and the size of the population. Weather severity for this purpose is conventionally measured as the number of degree days (weighted by population) relative to earlier periods. As of the end of January 1977, the population-weighted number of degree days was 38 percent above the winter of 1975-1976 and 22 percent above the average of the last 30 years.

For purposes of this assessment, two assumptions have been made about the weather for the remainder of the heating season:

(1) A return of temperature and fuel consumption to normal about mid-February. Under this optimistic assumption, degree days for the entire winter would be about 14 percent above normal and 28 percent above last year.

(2) A continuation over the remainder of the heating season of cold weather as severe, relative to normal, as the period through the end of January. Under this pessimistic assumption, degree days for the entire winter would be 23 percent above normal and 38 percent above last year.

#### PRODUCTION ADJUSTMENTS IN THE FIRST QUARTER

As yet, there are relatively few hard facts about the effects of the cold weather on production and employment in the first quarter. Residential construction is being curtailed, as is industrial production. In January, new housing starts fell sharply—particularly in the North Central and North Eastern States—and industrial output declined an estimated one percent. However, a large number of the industrial plants that were shut down in the latter half of January and early February by shortages of natural gas cold weather, or heavy snow have already reopened, and activity on many construction sites has probably resumed also.

Since the middle of January, the U.S. Departments of Labor and Commerce have made efforts to develop as much information as possible on the extent to which fuel shortages or cold weather have curtailed employment. These estimates are subject to an extremely high degree of uncertainty, but they are the best available. It appears that workers off the job for reasons related to weather rose to a peak level in the neighborhood of 1 1/4 to 1 3/4 million during the first week of February. Since then, the number has declined steadily to around 1/2 million by the middle of February.

Based on our optimistic weather assumptions and these estimates of employment losses to date, we believe that manhours lost due to plant shutdowns and curtailment of construction activity during the first quarter might total about 0.3 to 0.4 percent of total manhours worked. If the pessimistic weather assumption proves correct, the proportion of aggregate manhours lost due to the weather might run as high as 0.6 to 0.8 percent.

In translating these figures into estimates of lost production, we have made allowance for the possibility that widespread plant shutdowns may affect productivity adversely. Accordingly, our estimates of weather-related output losses during the first quarter range from 1/2 percent to 1 percent.

Offsetting these losses of output in manufacturing and construction in weather-affected areas will be increases in consumer expenditures for fuels that will probably not be offset fully by reduced consumer expenditures for other goods and services or by reductions in fuel inventories. As a rough estimate, the addition to measured real GNP from this source during the first quarter will range from 0.1 to 0.2 percent.

The net reduction in real GNP during the first quarter due to weather-related phenomena would thus be in the range of 0.4 to 0.8 percent.

#### CONSUMER EXPENDITURES ON FUEL

Consumer expenditures on fuel will be substantially larger this winter than last. Prices of energy items in the consumer price index have been rising rapidly since May 1976; the quantity of fuel purchased will be much higher this winter because of the cold weather, and this larger quantity purchased will itself tend to exert some upward pressure on fuel prices.

To obtain estimates of the effects of cold weather on the consumer fuel bill, it is important not to include the increase in expenditures over last year that is attributable to the general rise of energy prices since last year. That had already been allowed for in our earlier projections of economic activity during 1977. What is needed is an estimate of the additional expenditures for fuel associated entirely with the cold weather.

Based on statistical studies of past relationships between temperature and fuel usage, the cold weather is expected to lead to residential fuel bills that are \$2 to \$5 billion higher for the entire winter of 1976-1977 than had been anticipated—toward the lower end of the range if our optimistic

weather assumption obtains; toward the upper end of the range if the pessimistic assumption proves to be correct.

#### AGRICULTURAL PRODUCTION

The Florida freeze destroyed a large portion of Florida tomatoes and other cold-sensitive vegetables, and damaged a substantial part of the Florida citrus fruits. It is estimated that the loss of vegetables will be approximately \$100 million, and of citrus fruits between \$50 million and \$100 million, at last year's prices.

The impact of these losses will show up in higher consumer prices for fresh fruits and vegetables for the remaining winter and early spring months. The particular vegetables lost in the Florida freeze have a relatively high weight in the consumer price index, and that weight will rise as a consequence of higher prices. We estimate that the annual rate of increase of the total CPI may be boosted by 1/2 of one percent during the first half of 1977 due to price increases for fresh fruits and vegetables.

#### EFFECTS ON ECONOMIC PERFORMANCE OVER THE REMAINDER OF 1977

To assess the significance of the cold weather on longer run economic performance, it seems desirable from a conceptual standpoint to distinguish carefully between the effects of plant shutdowns and work stoppages in the first quarter, and the effects of additional consumer expenditures for fuel because of the cold weather.

Additional purchases by consumers of fuels will tend to reduce consumer spending on other goods and services. To be sure, the funds going into additional fuel expenditures will not be entirely lost to the spending stream. Part of these added outlays will result in additional oil imports in 1977—and to higher receipts by oil-exporting nations. Eventually, some of the dollars going abroad will work their way back into the spending stream through larger demands for our exports. Another part of the added outlays for fuel will accrue to domestic producers and distributors of fuel, or to electric utilities, mainly in the form of higher profits, and this will eventually result in higher dividend payments or larger investments. But the return of these funds to the spending stream may occur mainly in 1978 or later years, rather than in 1977. As a result, the drain of consumer purchasing power stemming from higher fuel bills will tend to exert a dampening influence on the rate of economic expansion during the course of this year.<sup>1</sup>

This drain of purchasing power due to higher fuel bills is a once-for-all loss rather than a continuing drag on consumer real incomes. The adverse effect on economic growth is therefore unlikely to be either large or long lasting. The results of simulations on an econometric model suggest that if additional consumer fuel expenditures for the heating season were to equal or somewhat exceed the upper limit of our estimate—\$5 billion—real GNP by the fourth quarter of 1977 would be only about 0.1 to 0.2 percent below our earlier expectations.

Turning to the potential longer-run effects of the production loss in the first

<sup>1</sup> A similar argument could be made about additional consumer expenditures for food because of rising food prices. The resulting enlargement of farm income—at the expense of real incomes of wage and salary workers—might result in some reduction in aggregate demand because farmers may spend less of their additional income on goods and services this year than wage and salary workers would have. The return of funds to the spending stream in this case, however, is likely to be much larger and more prompt than in the case with additional consumer fuel expenditures, and the magnitudes, in any event, are much smaller.

quarter, note first that the estimated magnitude of this loss is no larger than has sometimes occurred during a strike in a major industry. For example, a strike at a major auto manufacturing company in the fourth quarter of 1970 reduced auto output by more than one percent of real GNP—an amount greater than our higher estimate of the output loss in the first quarter of 1977.

Apart from responses of the economy to major strikes, there is little or no empirical evidence available to judge how the economy's longer-run performance might be affected by a development of this kind. It seems reasonable to expect, however, that both producers and consumers will recognize the transitory character of the work stoppages and will hold to their longer-range spending plans. Plants shut down in the first quarter will tend to work overtime later in the year, and the loss of wages and salaries during the first quarter will thereby be made up. Workers off the job in late January or early February will tend to maintain their consumption expenditures by digging into savings, and later build up their savings funds again.

A good part of the production loss—though probably not all of it—may be made up in the second quarter. We believe that virtually all of this loss will have been made up by the fourth quarter.

#### CONCLUDING REMARKS

Our overall judgment is that total real output of goods and services in the last quarter of 1977 will only be slightly affected by the cold weather. This effect could range from near zero to about a 0.2 percent reduction, depending on whether not severe cold returns over the remainder of the winter. Even the maximum loss would be well within the range of normal forecast error.

It must be emphasized, however, that the economic outlook for 1977 has become considerably more uncertain because of adverse weather. As noted earlier, we have made no allowance in our assessment for several possibilities that may eventuate—such as floods this spring, continuing work stoppages to restore inventories of natural gas, or drought in the Mid-West and the West. Nor can we take into account such imponderables as the effect of the weather on consumer and business confidence. Thus, while our point estimates of output and employment in the fourth quarter of 1977 remain essentially unchanged, there is now a larger band of uncertainty surrounding them.

#### THE DEPARTURE OF JOHN GARDNER: A LOSS AND A GAIN

Mr. PERCY. Mr. President, if one were to ask a man on the street what the term citizen action meant to him, he would almost certainly respond with some mention of Common Cause, the citizens' lobbying organization.

During its 7 year existence, Common Cause has been directly involved with some major reforms in our system of government. Because of this highly effective organization, the American people have a more responsive and more open government today than they had seven years ago. And the work of Common Cause has only just begun.

But the future work of the lobby will no longer be directed by the man who is responsible for its creation, organization, and ultimate success. John Gardner has decided to step down as chairman of Common Cause.

In an article which appeared in the Wall Street Journal on February 18, Arthur R. Hunt commented, "Essentially

Common Cause has proved the validity of two elemental, but sometimes forgotten ideas. The first is that the processes of government must be made to work well before citizens can have much impact on specific policy decision. The second is that although it is difficult, you can fight city hall." Mr. Gardner's role in proving these two points cannot be overstated.

Few private citizens have influenced the manner in which our country is governed the way Mr. Gardner has. He shall surely be missed. But we can all be consoled by the fact that he is leaving behind a strong organization, the work of which shall continue to make our Government a better one.

I ask unanimous consent that Mr. Hunt's article entitled, "John Gardner's Enduring Legacy in Common Cause" be printed in the RECORD.

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

#### JOHN GARDNER'S ENDURING LEGACY IN COMMON CAUSE (By Albert R. Hunt)

WASHINGTON.—Back in 1970 John Gardner announced he was starting an organization called Common Cause. Its purpose, he said, was nothing less than to achieve fundamental reforms in the American governmental system.

A lot of people laughed.

Washington cynics said the former Secretary of Health, Education, and Welfare obviously intended for the organization to serve mainly as a device for furthering his presidential ambitions. They said he was too patrician and cerebral to lead the tough kind of political fights he was talking about. They said the whole idea of Common Cause was hopelessly naive.

Today, Mr. Gardner is preparing to step down as chairman of Common Cause. Among several other achievements during his tenure, he has proved the cynics wrong. The 64-year-old Mr. Gardner and his organization have clearly demonstrated that determined citizens can actually reshape their government.

Naturally, Common Cause has made mistakes. But overall it has pursued its goals with an effective degree of shrewdness and tenacity. As a result, it is widely acknowledged now as one of the most influential lobbying organizations in Washington and elsewhere around the country.

Common Cause was a major influence in setting off a recent series of basic reforms in the way Congress operates. It had a lot to do with the big changes that lately have occurred in the financing of political campaigns. And from its inception it has consistently pushed for the "open government" concept that Jimmy Carter now preaches.

Mr. Gardner never made it to the Oval Office; in fact he never tried. But it's likely that few private citizens have had as lasting an impact on the governmental system as he.

Essentially, Common Cause has proved the validity of two elemental, but sometimes forgotten, ideas. The first is that the processes of government must be made to work well before citizens can have much impact on specific policy decisions. The second is that although it's difficult, you can fight city hall.

Even though Mr. Gardner and his organization frequently are assailed by the political right, these themes transcend ideology. The problems of secrecy and the need for accountability by government officials are as important to conservatives as to liberals. And the notion of effective citizen action hardly is a radical idea.

"There isn't any possibility that we can make power less seductive," Mr. Gardner said in an interview in the New Yorker magazine several years ago. "What we can do is to devise realistic arrangements that will make it more difficult for officials to separate the citizens from the levers of power and much more difficult for a tightly knit inner circle to monopolize those levers."

Operating under the maxim that "accountability is at the heart of free self-government," Mr. Gardner frequently has riled entrenched interests in an effort to achieve a more democratic system. Surprisingly often, he has succeeded.

Common Cause deserves at least part of the credit for several changes in government procedures that recently have occurred, or that are about to occur.

Some examples: Nearly all congressional committees now operate only in open sessions. Congress is preparing to pass legislation requiring lobbyists to disclose their activities. Lawmakers are expected to adopt soon a strict ethics code for themselves. California voters approved a measure minimizing government secrecy and putting restrictions on political contributions. A new Michigan law provides for taxpayer-financing of that state's gubernatorial campaign. Florida has adopted tough financial disclosure requirements for elected officials there.

Certainly the public revulsion over the Watergate affair was a big factor in some of these developments. But when Mr. Gardner and Common Cause began pushing for such changes, Watergate was nothing more than a big apartment complex on the Potomac.

In 1971, for instance, Common Cause began lobbying to end the automatic seniority system in the House by requiring that committee chairmen be directly elected by their party caucus. Skeptics doubted that such a significant change was possible, but by 1975 it had happened.

Three committee chairmen were unseated two years ago, and this year one appropriations subcommittee chairman was ousted. "The days of the autocratic chairman are over," says a House committee chairman. "You're not going to be dictatorial to people you know can determine your fate."

The secret of Common Cause's success is its members—250,000 of them, each paying at least \$15 in annual dues. Congressmen say they are perpetually badgered by letters and visits from these members. During political campaigns, local Common Cause units have been remarkably successful in getting commitments from candidates to fight for positions backed by the organization.

"Our real strength comes from having a cohesive constituency," says David Cohen, president of Common Cause. "This is basic. John Gardner understands that you have to motivate people, that the morale of our society is fundamental to dealing with problems. It's very important that people have a real sense of participation."

It's true that Common Cause members generally are more financially and socially able to participate than other citizens; one lawmaker calls the group's members the "guilty rich."

Whether that assessment applies or not, it is nonetheless salutary for thousands of Americans to band together in an effort to improve the way their government operates. Mr. Gardner, who believes it is time for him to move on to new challenges, has noted that eventually any citizen organization will "grow old and ineffective." But he adds that "the idea of citizen action will continue," and for his role in assuring that, he deserves the nation's thanks.

PAY-AS-YOU-GO CONSTITUTIONAL AMENDMENT—S.J. RES. 26

Mr. STENNIS. Mr. President, I want to commend the distinguished Senator from Nebraska (Mr. CURTIS) for his concern for the public welfare and his sense of fiscal responsibility which have prompted him to once again introduce a joint resolution proposing a pay-as-you-go constitutional amendment. I have been a cosponsor of this resolution in the past, and am pleased to join again with the Senator from Nebraska and others in proposing this amendment.

The proposed amendment is very clear and simple. It would require that any Federal budget deficit be offset by surtax to be levied in the calendar year following the year in which a deficit is incurred. If adopted, the amendment would be self-executing. No discretion on the part of anyone would be involved. If expenditures exceeded revenues a surtax would have to be levied in the following calendar year to balance the budget. The rate of surtax would be determined by the President as a mathematical calculation and would not require the exercise of judgment or discretion.

The sole exception from the requirement for a balanced budget would be that it could be set aside by a three-fourths vote of all Members of each House in case of a grave national emergency. This would be a safety valve available in such cases as a state of declared war or a serious depression.

I do not intend at this time to go into this matter in excessive detail or to cite a great number of facts and figures. However, I do want to point out that since 1950 the Federal budget has been in balance on only five occasions. We have had a deficit every year but once since 1960. The result is and was inevitable. Like the ordinary citizen who does not properly manage his finances and continues to spend more than he earns, we find ourselves deeper and deeper in debt.

As a result of these continuing deficits, the national debt on December 31, 1976, was over \$650 billion. Twelve months earlier it was only \$577 billion. This is an increase of \$73 billion in 1 short year. We are now paying about \$42 billion a year in interest on the national debt. This is almost as much as the entire Federal budget for fiscal year 1950.

The Federal deficit in fiscal year 1977 is now estimated at somewhere around \$68 billion. This includes the increase in the deficit which will result from the economic stimulus measures recommended by President Carter. We must face the unpleasant fact that the fiscal deficit may be more than \$70 billion for fiscal year 1977. For fiscal year 1976 the deficit was about \$66 billion.

I would like to point out again, Mr. President, that it took 186 years—until 1962—for the annual total of Federal spending to reach \$100 billion. In 1971, only 9 years later, Federal expenditures exceeded \$200 billion. In fiscal year 1975, only 4 years after that, the \$300 billion mark was passed. In fiscal year 1977 Federal expenditures will certainly exceed the \$400 billion level.

To state the matter in a slightly different manner, the cold fact of the situation is that in the last 15 years the Federal budget has seen a four-fold increase—from about \$100 billion to more than \$400 billion.

Payments by the Federal Government to individuals, to look at only one phase of the budget, have increased according to one estimate from \$12 billion in fiscal year 1955 to \$167 billion in fiscal year 1977. These payments continue to spiral upward.

I will not prolong this discussion, Mr. President. I do want to say again that the proposed amendment has much to recommend it.

First, it would be self-executing. The imposition of the surtax would be mandatory when expenditures exceeded revenues.

Secondly, the Congress will have the option at the outset to control the expenditures so that the surtax will not be necessary, and if Congress fails to do this, then the people will know exactly what it costs them in added taxes to offset the deficit which the Congress has created.

In my judgment, the adoption of the proposed constitutional amendment would be a giant step toward fiscal responsibility and financial integrity, and would effectively prohibit the Congress from continuing to mortgage the Nation's future in such excessive amounts.

I say once again, Mr. President, that I am proud to cosponsor this resolution. I will fight hard for its adoption, just as hard as I can. In the Federal financial arena it is high time for action rather than idle rhetoric. In conclusion, I again commend the distinguished Senator from Nebraska for his concern and interest in this vital area, and for his continued zeal in pushing for the adoption of this amendment. I sincerely hope that the Congress will adopt the joint resolution and that the amendment will thus be submitted to the States for ratification.

At best, it will require some years to ratify this amendment. In the meantime we should make all the progress possible in an effort to improve our financial and fiscal affairs. Even if the budget should be balanced within a few years, as is hoped, we would still strongly need this amendment as a safeguard for the future.

HELMUT SONNENFELDT, COUNSELOR OF THE DEPARTMENT OF STATE

Mr. MATHIAS. Mr. President, today marks the final day of service in the U.S. Government of Helmut Sonnenfeldt, counselor of the Department of State. It is a fitting time to reflect on the contribution that he has made during a long and distinguished career, both to U.S. foreign policy in general and to East-West relations in particular.

Throughout his professional life Mr. Sonnenfeldt has been intimately involved in the major issues which have marked the course of our own country and that of the Soviet Union in world

affairs: first as an intelligence analyst in the Department of State during the early postwar years, when Stalin's iron curtain was settling down across a divided Europe; later as a member of the staff of the Arms Control and Disarmament Agency upon its establishment in 1961; and later still as Director of the State Department's Office of Intelligence and Research for Soviet and East European Affairs.

Mr. Sonnenfeldt's achievements during this period were significant but were, nevertheless, only prelude. He joined the staff of the National Security Council as its senior member responsible for East-West relations and United States-Soviet affairs in 1969 at a time when the basic precepts of U.S. cold war policies were coming under review. The policy changes which ensued were extraordinary.

Special effort and attention went to developing a new and broad relationship with the Soviet Union, one aimed at a reduction of tension between our two countries and a downscaling of the pressures to squander our national treasure and energies on ever more sophisticated, powerful and deadly weapons. Détente—however abused the word may appear today—then denoted a bold concept aimed at a rational and orderly deescalation of the arms race so that, despite the inevitable disagreements which would arise between the United States and the U.S.S.R., the danger of nuclear holocaust would be made minimal. One of the architects of that policy was Helmut Sonnenfeldt.

In early 1974, Mr. Sonnenfeldt was appointed counselor of the Department of State, becoming a member of that institution's top management team with responsibilities that encompassed the activities of several of its bureaus. In this capacity, as was the case during his tenure in the White House, he participated in all summit-level meetings between the President and the Secretary of State and the leaders of Western Europe, Eastern Europe and the Soviet Union, and played a leading role in the development of policies that flowed from them—whether relating to strategic arms negotiations, nuclear nonproliferation or, more recently, United States-European economic relations.

Mr. President, throughout his professional life Mr. Sonnenfeldt has served his country with unswerving dedication and great ability. In the development of a strong, farsighted and coherent policy toward the Soviet Union, Mr. Sonnenfeldt was there at the beginning; his personal imprint upon that policy was fundamental. As he leaves the Department of State his fellow citizens owe him a debt of deep gratitude.

LITHUANIAN INDEPENDENCE DAY

Mr. RIBICOFF. Mr. President, at a time when the cry of dissidents in Eastern Europe can be heard throughout the world, it is significant to note that February 16 marked the 59th anniversary of the establishment of the Republic of Lithuania.

The Lithuanian people have been troubled since their Republic was forcibly incorporated into the Soviet Union 36 years ago. Since that time they have looked to the United States for moral support, and we have responded by refusing to recognize the forced annexation by the Soviets. Moreover, Americans have always shown a warm sympathy toward a nation's aspirations for freedom and independence, and in this struggle both the United States and Lithuania share a common heritage.

Recently, the Lithuanian people looked to the spirit of détente and the Helsinki Declaration as a possible answer to their years of oppression. But these hopes were not fulfilled last year by month after month of mass arrests of political and religious dissidents. This wave of repression exposed Soviet involvement in Lithuania for what it is—a heavy-handed domination by force of an entire people. Freedom-loving people throughout the world must speak loudly in opposition to such repressive practices.

We in the Senate have sharply condemned such oppression. As abuses continue to mount, we will redirect our efforts toward securing fundamental human rights for these people. The injustices endured by the Lithuanians cannot be tolerated in silence by humanitarian nations any longer.

#### PAY-AS-YOU-GO CONSTITUTIONAL AMENDMENT—SENATE JOINT RESOLUTION 26

Mr. GARN. Mr. President, Tuesday, President Carter submitted his revised budget for fiscal year 1978 to the Congress, and while we were expecting something outlandish, what we got fairly takes the breath away. President Ford had proposed a budget with a healthy deficit of \$47 billion, which was more than I thought it should be, but which clearly showed that President Ford was looking for a way out of the seemingly interminable spiral of spending increases we seem to have gotten into. President Carter now proposes to increase that deficit by almost \$11 billion, in the interests of "stimulating the economy."

In that same interest, there is every indication that the Congress will go the President some better. Indeed, both Houses have already adopted budget resolutions larger than needed to accommodate the President's request. I am sure that both Houses will use all the leeway provided for them in the resolutions.

So it is with a sense of some discouragement that I join Senator CURTIS today in sponsoring a constitutional amendment which would, except in times of specified emergency, require the Federal budget to be balanced. I am discouraged because I just do not see the Congress ready to exercise the will it will take to enact this bill, and to bring about the spending and taxing policies necessary to make it a reality.

So we will go on, Mr. President, inflating our currency, robbing the poor and the elderly, and all those on fixed incomes, of their buying power, destroying the value of municipal bonds, of in-

vestments, destroying the incentive and will to save and invest, and our national treasure will become worth less and less.

We will continue to do so, I say, until the day comes when the people will have had enough. And for my part, I hope that that day comes soon. We see already indications that the reckoning is not far off. Strong movements have been mounted in several States to adopt amendments to State constitutions limiting the State tax take to 25 percent of income. A nationwide movement to accomplish the same goal has been formed, and I wish it every success. May it accomplish its goal while there is still a little blood in the political turnip. Until we are willing to put our own house in order, to learn that there must be a time for saying "No" to interest groups that seek our ear, the people we are supposed to be serving will continue to lose faith in us, will continue to distrust us, and even to hate us.

The Nation cannot continue this way, Mr. President. Somewhere, we must call a halt. I think Senator CURTIS' amendment aims in the right direction, though no doubt we will be dismissed as "kooks," as unrealistic, and our bill ignored as too radical. It is radical, Mr. President, in that it gets to the root of the problem. But in extreme circumstances, laying the axe to the root of the tree is entirely appropriate. In no other way are we likely to stop the growth of the Federal forest.

#### LITHUANIAN INDEPENDENCE DAY

Mr. BAYH. Mr. President, the Senate set aside February 24 to commemorate the 59th anniversary of Lithuanian independence. On the historic date of February 16, 1918 the Council of Lithuania proclaimed that: Basing itself on the recognized right of national self-determination and on the resolution adopted at the Lithuanian Conference of Vilnius, on September 18-23, 1917, declares that it is restoring an independent Lithuanian state on democratic foundations, with its capital in Vilnius, and that it is severing all the ties that have ever bound this state to other nations.

The spirit which sparked this declaration of independence is kindred to the aspirations of our forebears when they made a similar statement of self-determination on July 4, 1776. Fortunately, we were able to overcome the forces hostile to our Nation's birth. For Lithuanians the cataclysm of World War II cut short their sovereignty as the Lithuanian state fell prey to the dark forces of Soviet imperialism.

While the forces of arms imposed by the Red Army may have crushed the Vilnius government it could never subdue the spirit of the Lithuanian people. Today, in what can only be considered the real spirit of Helsinki, the Lithuanian consciousness has manifested itself in resolute resistance as demonstrated in Kauņas in 1972 and the widely read "Chronicle of the Catholic Church in Lithuania." The percentage of Lithuanians in Soviet labor camps is reportedly inordinately high. And who can forget the case of Simas Kudirka who

sought political refuge aboard a U.S. Coast Guard vessel only to be denied because of a policy by our Government which at that time was unclear on the human rights question. But as President Carter reminded us in his inaugural address:

The passion for freedom is on the rise. Tapping this new spirit, there can be no nobler nor more ambitious task for America to undertake on this day of a new beginning than to help shape a just and peaceful world that is truly humane . . . Because we are free we can never be indifferent to the fate of freedom elsewhere.

Fortunately, Mr. Kudirka was able to finally obtain an exit visa to come to this country. However, the tragedy was that it took years of waiting to realize this basic human right of emigration. Those who have a "well-founded fear of persecution" should be extended safe haven, regardless of whether the threat to their safety comes from a superpower attempting to crush dissent or a "friendly" dictatorial regime relying on torture as a tool of political control.

Today we mark a moment of inextinguishable pride in the history of Lithuania. The true patriots of Lithuania such as Petras Paulaitis and other heroes of the democratic movement should continue to be a source of real pride for Lithuanian Americans. I think we should also pause here to extend a special note of thanks to the distinguished senior Senator from Illinois (Mr. PERCY), whose diligent efforts as a member of the Senate Foreign Relations Committee allows us this occasion to pay tribute to the courage of the Lithuanian people.

Yes, there is a new spirit in this country seeking to match the rise of the passion for freedom in countries round the globe. As we move toward the Belgrade Conference on the implementation of the Helsinki Declaration we should take heart that even the most terrible tyranny can never completely erase the desire and the demand for liberty where hearts are strong and the cause is just. We take this opportunity today to once again reaffirm our support for those hearts and the essential rightness of that cause.

#### A VITAL NEED TO HELP SMALL BUSINESS

Mr. MATHIAS. Mr. President, on January 10, I introduced S. 49, "the Small Business Administrative Review Act of 1977." S. 49 is an effort to give small business in this country access to a new court, so that they can have a forum to contest Federal citations and fines without having to go to the brink of financial ruin in the process. It is, in essence, a proposal to give the small businessmen and women of this country their day in court. My bill is based on the fundamental principle of due process, a right which, for small business, has been frequently jeopardized by the near-overwhelming burden of Federal regulation.

Small business deserves our help. In this regard, I should like to bring to the attention of my colleagues a fine article by Herbert Heaton of the Rockefeller Foundation. This article deals with the creation of an innovative organization

Support Services Alliance, Inc., to help small business. The Alliance is organized to provide direct access to services of all types for entrepreneuring individuals and small enterprises. The Alliance would provide access to legal, accounting, and insurance services that too often are unavailable to small enterprises. In addition, the Alliance will serve as a clearing house for financing mechanisms and techniques, entrepreneuring theory and methods, research, representation, publications, and miscellaneous services.

I think that the article is an important and timely one and 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:

ENTREPRENEURING AND THE ALLIANCE PROGRAM  
(By Herbert Heaton)

(More than twenty-five percent of us are self-employed or work in organizations with fewer than twenty employees. Entrepreneuring is important and it must have organized support.)

For millions of people, entrepreneuring is a matter of survival because there are not enough jobs to go around. For others, being small but independent is the only way they would like to make a living. Difficult as it is, entrepreneuring is also satisfying because it involves the three elements of satisfaction: one's own goals, one's own methods and feedback. Entrepreneuring is the basis of freedom because freedom requires alternatives which people can pursue. Entrepreneuring is economically essential because a healthy economy requires a mixture of sizes with small enterprises and self-reliant individuals to innovate, take risks and provide efficient individualized services. Art, music, literature and fine crafts, as we know them, are products of entrepreneuring individuals.

Unfortunately individual workers and small enterprises do not presently have good access to many of the services they need to survive and thrive: professional services, financing, training and representation to name some of them. In general, physical goods still move through the marketplace to any purchaser regardless of size. Services, on the other hand, are usually available only through organizational arrangements to which individuals and small enterprises do not have access. SUPPORT SERVICES ALLIANCE, INC. has been organized to provide access to services for entrepreneuring individuals and small enterprises. The Alliance is a nonprofit membership organization with a dual pattern of activities: (1) providing direct access to services for members and (2) providing general support to the entrepreneuring community.

INVISIBLE

Irving Kristol has applied the term "forgotten people" to those of us who have become invisible in recent decades: independent workers and those in family or community size organizations. Why invisible? Because modern systems analysis provides information only about people and things inside the system being analyzed. In our split-level economy, economic analysis deals mostly with the part for which statistics are accumulated and in which big organizations are located, leaving the traditional sector with its self-employed and small impermanent units to be stereotyped instead of seen and served. Research focuses on the prestigious problems of big organizations which subsidize the researchers.

When we are invisible to others, we tend to lose sight of ourselves. Having internalized the labels that organizations give to the parts of us they deal with (factory hands,

auditors, students, drop-outs) it is not easy for us to see ourselves as whole people. Without this insight, however, the door to entrepreneuring is closed. Beyond this it is even more difficult to see as a whole the great community of independent craftworkers and professionals, masons, musicians, merchants, small landlords, farmers, and cooperators in self-help projects. It is a community with many shared values, strengths and needs. Men and women who belong to this community need not stand alone and apart, invisible, forgotten and disadvantaged.

BUT IMPORTANT

The health of a society can be no better than the health of its smallest units. Loss of small enterprises, both profit and nonprofit, occurs in ghettos and depressed areas as they degenerate, just as growth of small enterprises occurs in developing communities. There are no complete statistics about small enterprises and self-employed persons, but obviously it is not large enterprises alone that can make the country healthy. In fact, large affluent organizations must cultivate markets where the money is and shun areas with economic and social problems. Development starts at the grass roots and growth occurs blade by blade; only the fertile fields can be harvested by a giant combine.

Never before have the grass roots of our society been threatened as much as today. Twenty million people have been displaced from agriculture since World War II, mostly from small farms, and today the big agricultural cooperatives find themselves unable to serve the most needful of the small farmers who remain. Vast urban areas are losing their landlords, stores, carpenters, professionals and even their unskilled handymen and today, access to insurance, financing, professional assistance, research, education and other services is not available to those who remain.

It is not that insurance companies, banks, lawyers, accountants, and schools do not want to serve. What is wrong is that small enterprises and entrepreneuring individuals have not had an organization through which to receive the services. When it comes to services, consumers must be copartners in production. For example, consumers must learn to manage risks to justify insurance and must associate with others who also seek insurance in order to minimize the administrative and selling costs which make up such a large part of the premium dollar on individual policies. Support Services Alliance, Inc. offers a seminar on risk management and its members constitute an organized pool which can command group rates.

THE NEXT STEP

We laugh at the old joke about giving directions: "There is no way to get there from here." But it is no joking matter when economists and systems analysts give the same kind of directions telling us there is no way to save our cities and no way to give jobs to everyone without causing inflation. What the experts mean in each instance is that they do not know the way. Then psychologists tell us we cannot do better for ourselves, that they know where we stand and what paths we must not follow and what steps we must not take. The essence of entrepreneuring, on the other hand, is a belief in one's own ability to make one's own way step-by-step to one's own goals. Evaluations which deny any point to trying, have no value to those who try.

Small enterprises and entrepreneuring individuals need feedback, not evaluations. It is not easy, however, to get feedback on how one is doing. Conventionally, people are evaluated in terms of their assumed potential instead of given feedback on their performance. Those who internalize low rankings from evaluators and see themselves as failures, tend to interpret setbacks and mistakes as confirmation of their falling status

instead of happenings to learn from. Feedback must be aggressively sought. Why was the loan refused and what steps would change the decision? Each step forward is not a triumph.

Each step is both an end and a beginning. Each answer learned today is the basis for a new question to seek an answer to tomorrow. Each problem solved creates an opportunity to work on a new problem tomorrow. These progressions comprise development. When we cease having new questions and problems and a next step to take tomorrow, we cease developing and entrepreneuring.

ACCESS TO LEARNING

Through most of history, growing up on a farm was the way to learn farming. Growing up in a trade, craft or profession or apprenticing to one of them was the way to acquire skills and find out how to run small enterprises. Today apprenticeship is still a basic learning model and large organizations use it. Factories have lead workers, stores their senior salespeople and offices and bureaucracies their working supervisors to break in and guide new employees. Hospitals and large professional firms provide supervised practical experience to newly credentialed doctors, lawyers and accountants. Through cooperative education programs, schools and colleges provide internships in which to learn job skills.

For millions of us in this country, however, the learning model of observing and doing under supervision is not available. It is not available to peddlers, commission salespeople, freelance writers, painters, repair and service workers, medical and dental practitioners and others who live independently by their skills and wits. For survival, satisfaction and productivity, however, all of them need access to entrepreneuring knowledge, e.g. how to handle mistakes and complaints, how to price services or products, and how to negotiate. Fortunately there are alternative learning models for entrepreneuring to which access can be organized.

In order of importance, learning resources are first oneself, second one's peers and third teachers who are not one's supervisors on the job. To exploit oneself as a learning resource, there are skills to be mastered, particularly in obtaining and using feedback. One of the first learning modules made available to members of Support Services Alliance is a seminar on this subject. To learn from one's peers is important, because their knowledge and skills should be current and relevant. The mechanisms of peer counseling have been developed into peer learning modules by researchers at Full Circle, a nonprofit, community based service organization in New York City. Some of the modules currently being tested are especially designed for entrepreneuring and members of SSA will have access to them. Peer learning is important because it is the start of a personalized mutual support network. Beyond independence is interdependence, beyond self-help is development of organized cooperative supporting services.

Finally, there must be access to systematic continuing education. There are trade associations that offer specialized courses to their members and a management association that offers courses to key people in large organizations, but entrepreneuring individuals and managers of small enterprises have special needs. SSA is making available to begin with twenty learning modules in the form of small group seminars on such subjects as cash flow, bidding on jobs or contracts and effectively using the experts like lawyers and tax accountants. The list will expand and some self-study programs are projected. The modules are being prepared by the University Without Walls at Skidmore College which has contracted to develop the overall program. As a result, enrichment as well as technical modules will be available and arrangements can be made to have the modules

apply toward a college degree. Fees paid to SSA for continuing education are generally tax deductible by members.

#### ACCESS TO PROFESSIONAL SERVICES

There are legal, accounting and management aspects to almost everything we do. That does not mean that we need assistance from lawyers, accountants and management consultants whenever we lift a finger. Access to effective professional assistance requires, first of all, that we be selective and timely in our requests. Second, access to effective professional assistance requires that we fill our roles as coproducers of the services we need. No use to ask a lawyer for a will unless we can provide him with an inventory of assets and liabilities and a statement of who the heirs should be. No use to ask an accountant to prepare a tax return unless we have documents and records from which the return can be prepared. Third, we need to find a professional person who will listen to our problem, look at our situation and respond constructively. Finding the right professional person is not simply a matter of looking in the Yellow Pages.

The first and second points above are matters of personal training and experience and a training seminar of SSA will deal with them. The third point is organizational and membership in SSA will provide helpful connections and referrals.

**Legal Services.** A high percentage of legal needs can be met by a five minute phone discussion with an attorney, an unpublished survey has shown. Members of SSA will be able to have such a discussion for a modest fee by calling an 800 number. The phone will be answered by a young attorney working under professional guidance. Instruction sheets will be prepared for dealing with recurring problems like getting satisfaction on an equipment guarantee. The sheets will list a series of steps to take and if satisfaction is not obtained by the time the last step is taken, referral to an attorney can be requested.

On a different level, United States Senator James Buckley has written of the need for self-employed individuals and those in small enterprises for support in defending themselves against bureaucratic harassment. With Representative Crane, Buckley introduced legislation calling for reimbursement of legal fees for successful defense in the courts against the Federal government or its agencies. But who can afford the up-front money, perhaps fifty thousand dollars or more, that taking an issue to court requires? SSA is exploring the possibility of arrangements for support services in this area.

**Accounting Services.** "Government has developed an insatiable appetite for paper and red tape. It is choking the life out of free enterprise and individual initiative in America. Government reporting requirements cost small businesses in America \$18 billion a year." (From a speech by President Ford in May 1976) Obviously the reporting requirements are for the benefit of the government, not the enterprises that prepare the reports. Obviously, then, the government should pay for the reports. No other solution has any plausibility. No other solution can enable small businesses to afford the professional assistance needed to prepare the reports. It is not subsidies and special favors that small organizations and the self-employed need, just simply equity.

Inadvertently, the public accounting profession too has laid it on small organizations, but corrective actions may soon be forthcoming. Public accountants appeared in this country sixty years ago and increased in numbers as public ownership of corporations increased. As corporations grew in size, CPA's formed larger professional partnerships to serve them and prescribed increasing uniformity in accounting proce-

dures and reports. It is needlessly expensive, however, for a local merchant to be bound by accounting rules that were designed to meet the requirements of the SEC, the stock exchanges and investment analysts. Furthermore, giant professional partnerships are not well suited to serve the day to day needs of small clients. Fortunately, there may soon be official liberation of small enterprises from accounting rules designed for giants. Hopefully, there will be a revitalization of individual CPA practitioners and small accounting firms to serve small clients. SSA will encourage these important reorientations of the accounting profession.

#### ACCESS TO INSURANCE

Under a group contract, administrative and selling costs are minimized, resulting in lower premium costs. But group contracts like those covering employees of large corporations, presuppose that risks average out within each group. Since jobs in large organizations tend to be filled by homogeneous groups of workers who have more or less similar life styles, live in the same or similar communities and have the same access to medical care, insurance companies find they have standard claim patterns which approximate predicted averages. The self-employed and those in small enterprises, on the other hand, can be perceived to be a heterogeneous group with diverse life styles, diverse access to medical care and perhaps with atypical life expectancies. It is not easy to assure that risks will average out in such a scattered group.

Nonetheless, the equivalent of group insurance savings in administrative and selling costs can be achieved by the self-employed and those in small enterprises. SSA is the mechanism for such savings to its members. To assure that risks will average out within the membership of SSA, there will be special provisions. Experience rating should be favorable because entrepreneuring people are by definition self-reliant, responsible and potentially productive as copartners in producing the services they consume, such as health care.

The income tax laws should be changed so that payments by the self-employed for medical and life insurance under a group plan are deductible for tax purposes just as are the payments for such insurance for employees of large organizations. Unemployment insurance is presently unavailable to the self-employed, but its equivalent could readily be provided. Let the self-employed deposit four percent of their gross income in special savings accounts—and deduct the payment as a business expense just as unemployment insurance payments are deducted by large organizations. Withdrawals would be reportable for tax purposes. SSA will research the equity and economics of potential tax reforms which can benefit its members.

#### AND MORE

Financing mechanisms and techniques, entrepreneuring theory and methods, research, representation, publications and miscellaneous services.

SSA will promote the availability of guaranteed post-funded annuities so that sales of small businesses can be financed out of future profits just as sales of large businesses are. SSA will also promote other mechanisms and techniques that are already available but underused, like leasing and sweat equity financing. But in running a business, the control of cash flow is usually more important and more difficult than raising money and too much success in borrowing is a common cause of business failure. Each type of asset used in a business can call for a different financing method. It is even possible to have the use of assets that are not owned and need not be financed at all. Look for articles and seminars on practical financing methods for the self-employed and small enterprises.

Entrepreneuring theory and methods are very different from the management theory and methods appropriate for large organizations. Entrepreneuring calls for individualized responsiveness, not standardization. Small farms and many small businesses must be family enterprises, but personnel practices in large organizations generally prohibit employment of relatives. When small organizations grow, it is necessary to superimpose big organization administrative practices on entrepreneuring methods. But courses in management for small enterprises and the self-employed that prescribe big organization management methods are counterproductive or literally destructive. Look for articles and seminars on practical, down-to-earth entrepreneuring theory and methods.

Miscellaneous services will include guaranteed education loans for children of members. Discounts on rental cars will be available. The objective is to provide members with full access to the benefits inherent in the mainstream of the American business system.

#### CONCLUSION

Large and small organizations are interdependent, the well being of each group making it possible for the other group to thrive. The role of Support Services Alliance, Inc. is to make sure that the services of large organizations effectively reach small ones. Large organizations will support this effort because the greater the survival, satisfaction and productivity of the members of Support Services Alliance, Inc. the greater the well being of the economy and society as a whole.

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#### LITHUANIAN INDEPENDENCE DAY

Mr. WILLIAMS. Mr. President, February 16, 1977 was a day of special meaning for Americans of Lithuanian descent and their countrymen throughout the world. On that date, 59 years ago, a 20-member National Council declared Lithuania free and independent. This declaration marked the end of a long struggle for the Lithuanian people, dating back to 1795, when they fell under the domination of Czarist Russia.

Although Lithuanian independence was to last for only 22 years, in that time the Lithuanian people made remarkable advances with respect to their social, economic, and cultural life. A Constituent Assembly was elected in 1920, and a democratic Constitution modeled after our own was adopted.

As World War II began, Lithuania tried to steer a neutral course, but events dictated otherwise. In 1940, the country fell victim to Soviet expansionism,

despite a 1926 treaty of nonaggression with the Soviet Union. Lithuania was soon made a satellite of the Soviet Union, an act that the United States has never recognized. Shortly thereafter, the Soviets were thrown out by Nazi invaders, who brought with them their own brand of terror and oppression. In 1944, the Soviets returned and reestablished firm control over the Lithuanians, a control characterized by the denial of human and civil rights and by a systematic attempt to destroy the Lithuanian culture. This tyranny continues to the present.

Still, the Lithuanian people remain committed to the idea and the reality of a free and independent Lithuania, once again taking its rightful place among the free nations of the world. The courage of the Lithuanians in the face of oppression, and their faith in their eventual deliverance are an inspiration for all who love freedom.

#### A NONSOLUTION TO THE NARCOTICS PROBLEM

Mr. PERCY. Mr. President, John S. Lang of the New York Post authored a February 8 article entitled "Feds May Corner World's Opium Market." The article describes a report by the House Select Committee on Narcotics Abuse and Control which, in its working draft, recommends that the Federal Government endeavor to negotiate with the world opium-producing countries for a fixed price for opium. We would then buy "the entire world supply" of the drug and destroy it. In this way, the report reasons, Federal authorities can eliminate opium derivatives, such as heroin, from street distribution.

In my view this suggestion represents the height of absurdity.

There can be no "cornering the supply" through the market mechanism as long as opium producers are able to continue to grow more—indeed, considerably more. Attempting to fix a legal price for an illegal commodity is, *prima facie*, impossible.

Opium purchases by the Federal Government could well increase drastically the demand for the substance. And the very first lesson of economics is that increased demand leads to higher prices and new avenues of supply. Opium producers—and their governments—would have no reason to resist this process; it would mean windfall profits for them.

Even if the price of opium is inflated out of reach of the street user through massive Federal purchases, we will not have accomplished much. Opium is not the only source of psychoactive drugs, and close substitutes would surely emerge in readily available quantities.

Unless the report's authors can pull a rabbit out of their economic hat, the scheme is doomed to failure, and at the risk of rewarding the very traffickers in destruction who should be behind bars.

The article mentions that "the plan may well find wide acceptance in Congress." Not if I can help it. I will do everything I can to keep preclusive buying of opium from becoming a reality. Not many ideas would waste so much money with

so little rhyme nor reason and so negligible a return.

Taking opiates off the streets is a laudable concern. The planners who conceived of this alternative are well-intentioned. But let us not ignore the lessons of economics as we move to counter the tragedy of drug addiction.

Mr. President, Mr. Lang does us a great service by forewarning of this futile plan, and I ask unanimous consent that his article be printed in the RECORD.

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

#### FEDS MAY CORNER WORLD'S OPIUM MARKETS (By John S. Lang)

WASHINGTON.—A special House Committee wants the U.S. government to buy all the opium in the world in an effort to keep heroin off the streets.

A working draft of a report by the House Select Committee on Narcotics Abuse and Control recommends that the State Dept. try to convene a conference with all opium-growing countries.

At such a meeting, the report proposes, American diplomats would work to establish a world purchase price for opium, the substance from which heroin is derived.

"Having agreed to the price, the U.S. should offer to purchase the entire world supply for eventual destruction," states a preliminary draft of the proposal obtained by The Post.

The recommendation has caused controversy within the committee, and the final version may contain somewhat different language. But Chairman Lester Wolff (D-Nasau) supports the plan and once before urged this government to purchase a Far Eastern opium crop.

The idea is received with ridicule and dismay among longtime federal narcotics control officers.

"It could start a bidding war between the government and the Mafia," jeered one Drug Enforcement Administration official. "And don't you know who would win?"

"It's a ridiculous idea," said another Federal drug control source. "Even if we bought all the opium available that wouldn't stop illegal growing or smuggling. They'd just grow more. As long as there is a profit motive and demand, people are going to grow bootleg crops."

However controversial, the plan may well find wide acceptance in Congress, which created Wolff's panel last July and reconstituted it last month.

As justification for making the government an opium buyer, the committee says that "even if drug abuse has not been a chief concern in the countries where opium is grown, we must give the growing nations a reason for having a deep and abiding interest in preventing the movement of drugs."

The report suggests that the State Dept. try to set up the opium price-fixing conference with—or without—cooperation from the UN. Any agreement establishing a global price would be sent to Congress for ratification.

Since it was created, the committee has been holding hearings to determine why the number of heroin addicts in this country has doubled to 800,000 in the last three years.

It found that less than 10 per cent of the total heroin supply coming into this nation is seized by authorities. Yet it said the drug agencies are so overwhelmed that cases involving up to 500 pounds of smuggled marijuana are going totally unprosecuted.

#### COMMUNITY REINVESTMENT

Mr. PROXMIER. Mr. President, South Shore National Bank of Chicago is a remarkable example of how a bank can

take the lead in fostering the economic revival of its community, when the bank makes a commitment to do so. I am including for the record a fascinating article on the bank and its chairman, Ronald Grzywinski, from Chicago magazine.

This should be mandatory reading for the Nation's bankers. I have introduced legislation, S. 406, the Community Reinvestment Act, which would make community reinvestment a higher priority activity for the Nation's banks. I do not know whether it is possible to legislate more Ron Grzywinskis, but we are going to try.

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:

#### MONEY MATTERS (By Judith Barnard)

Water began seeping into the elegant South Shore Villa condominium during the night of October 21, 1976. Within a few minutes, the city water department had been called and a crew left the station at 79th and Ashland to drive in to South Shore. Before they got to the Villa, the cracked water main that had allowed the seepage burst, and five million gallons of water exploded into 69th Street at South Shore Drive.

The street was sucked into a 60-foot lake; cars floated on its surface. As the earth washed away, the south wall of the Villa crumbled, opening living rooms, bedrooms, and kitchens to the night air.

The water department crew had to shut off six valves to stop the flow; each took 20 minutes. When they had finished, and the sound of rushing water had died away, television crews, news photographers, and residents lining the collapsed street took stock of the damage.

It was a terrific disaster for the public—high drama and no one hurt or killed. But for those who knew what the Villa meant symbolically, the flood had wounded an entire neighborhood. That regal building had been given up as a prospective slum by its mortgage holder, Talman Federal. The community of South Shore had been declared a disaster area, soon to become one large slum, by urbanologist Pierre de Vise, by a majority of its former white residents, and by the money merchants of Chicago.

But the 39-unit Villa had been reclaimed, renewed. It was sold at a hefty profit to a developer, and its residents formed a strong, active condominium association. It was both an example and a symbol of what South Shore could achieve in its homes and businesses—if the streets held, and if the community didn't become discouraged. And if the commitment held firm among the people behind the Villa renovation, behind the effort to turn South Shore around—the staff of the South Shore National Bank.

At its peak, the South Shore National Bank had assets of \$80 million—a stable bank in a stable, prosperous white community with a lakefront, an enclave of mansions, blocks of modest homes, and solid three-story walkups, high-rises, designer shops along 71st Street, churches, synagogues, schools, proximity to the Loop and the University of Chicago, and a heterogeneous population of 80,000.

What happened in South Shore isn't a unique story any more—but what's happening now is unique. It may even carry hope for other deteriorating urban areas where all those involved claim—and believe—they are victims of forces beyond their control.

South Shore "went black." Within a few years, the population in the area bounded by

Jackson Park (67th Street), Stony Island, 83rd Street, and the lake shifted from 99 percent white to 85 percent black. The white residents who stayed either had substantial investments in mansions in the section called the Jackson Park Highlands, or an investment of another kind: a commitment to integration and a brief, or hope, that they could keep South Shore from going the way of neighboring Woodlawn.

The forces that accompany, and accelerate the deterioration of an area are complex and, seen in isolation, baffling. But they have a pattern, and South Shore's in the 1950s and 1960s went something like this:

The pressure for good housing for blacks was enormous. Where they could, blacks burst out of their overcrowded, deteriorating neighborhoods into areas with better housing, lower crime rates, better schools, and breathing space. The demand pushed prices up; landlords raised apartment rents, and blacks, having few options, paid them. Other landlords followed suit, and white families, who did have options, moved to neighborhoods where rents were lower.

At this point, two things happened. Landlords assumed that blacks would ruin the area, so many saw no sense in spending good money on maintenance or on screening applicants or on enforcing density restrictions. Maintenance became minimal; rents went up; many black families, to make payments, shared apartments with cousins or friends. And owners watched their self-fulfilling prophecies be fulfilled.

By "milking" their buildings (also called "managing for demolition"), owners pocketed money they would have spent on maintenance and taxes. In that way they could recover the purchase price of a building in three years. The City of Chicago allows a "grace period" of ten years of nonpayment of taxes before it takes over a building; so the owners, their names often buried in land trusts, had plenty of time to walk away from buildings that by then were worthless.

Single-family homes were treated much the same way. Black families that could not get conventional mortgages (the area, by this time, had been redlined by most banks and savings and loan institutions), got FHA-insured mortgages. And when they couldn't keep up payments (FHA screening procedures are minimal), and the mortgages were foreclosed, those houses had to stand empty for one year (a peculiar FHA regulation) before new owners could take over. By that time, the houses had become playgrounds, stripped of their fixtures and damaged by cold, rain, and wind. More, neighbors had stopped fixing up their homes because the sore spots depressed values on the block.

"Disinvestment" means the conscious decision by financial institutions to keep investment money out of a community. It applies to banks in the community as well as to those downtown. At about the time the color of South Shore began changing, the owners of the South Shore National Bank decided they couldn't cope with the new residents. Banking habits were different, the people were different from those with whom the bank had been comfortable. Many familiar customers were leaving and taking their deposits elsewhere. The bank made its own decision to disinvest, which in effect meant creating conditions that would speed the outflow of deposits. The lobby got dirty and wasn't cleaned up, tellers weren't replaced when they left, and people had to stand in line for as long as an hour to open a new account. The minimum deposit required for high-interest accounts was greater than in downtown banks, services were minimal, and mortgages were refused. In 1972, the bank lent \$59,000 in South Shore mortgages for the entire year: two homes.

As a policy, it worked. Assets dropped from \$80 million to \$46 million, deposits to \$41 million. Business was so bad, the owners said,

they had to get out. They had buyers who wanted to move the bank to the Standard Oil Building. They filed an application to move.

Looking over its shoulder at Woodlawn, the South Shore Commission, a community organization begun in the 1950s, fought the move. They testified before the Comptroller of the Currency that there wasn't a good reason for the bank to move, that the move would do irreparable damage to South Shore.

And for the first time, the Comptroller of the Currency turned down such an application, stating that the bank "has failed to show persuasive reason at this time for abandoning its present service area and leaving the South Shore community without a strong, established, and adequately capitalized commercial bank."

Sometimes events coincide as if by plan. At the same time that the owners of the South Shore National Bank were looking for a way out of a community they no longer understood, a group of people in Hyde Park was looking for a bank to buy. One member of the group was the former president of the Hyde Park Bank and Trust Company, Ron Grzywinski (Griz-win-ski), who had just completed a two-year fellowship at the Adlai Stevenson Institute, where he worked up a model for a development bank that could help a community reverse the spiral of deterioration.

Grzywinski named his model the Neighborhood Development Corporation; it would be a holding company that would buy a bank and eventually form subsidiaries, both for profit and nonprofit, to act as a catalyst and a base of support for neighborhood rehabilitation and development.

He had talked it out with the people who would help him put the model into action: Mary Houghton and Milton Davis, who, as directors of the Hyde Park Bank's urban development division, had created the successful minority business-loan program.

In another of those fortuitous conjunctions of events, in August 1972, at the same time Grzywinski was looking over the South Shore National Bank, the Federal Reserve Board ruled that bank holding companies could make "investments in corporations or projects designed primarily to promote community welfare, such as the economic rehabilitation and development of low-income areas." The ruling went on: "Bank holding companies possess a unique combination of financial and managerial resources making them particularly suited for a meaningful and substantial role in remedying our social ills."

It was a trumpet sounding the charge. Grzywinski took his model, the new Fed ruling, and his own considerable charm, and went calling on foundations, wealthy individuals, and church groups, looking for four million dollars.

He wasn't preaching the kingdom of heaven as a reward for good works in South Shore; he was making a business pitch for investments that he expected, but could not promise, would pay dividends if investors would agree to defer their earnings until the new owners could reverse the outflow of deposits and attract new money from within and outside South Shore.

At no time, verbally or in his written proposals, did he conceal the role that he and his fellow officers intended the bank to play in making an experiment that hadn't been made in any other deteriorating neighborhood in the country:

"While the policy of the corporation is to make loans and investments only in situations which it believes offer a reasonable expectation of return to the corporation, it will not attempt to maximize such return at the expense of its primary goal of developing the neighborhood for the benefit of its residents. Moreover, the corporation expects to conduct

or contract for research and studies to provide technical assistance and to make grants related to neighborhood development. While the effect of such expenditures may be to improve the neighborhood, they may also reduce the returns, if any, to the participants in the corporation." (From the Offering Circular of the Illinois Neighborhood Development Corporation; italics added.)

It was hardly a conventional approach; what followed was even less so. The Offering Circular reiterated the dangers the new owners might face—hostility from the community, lack of sufficient outside investments to maintain momentum, absence of any models on which to base their experiment, the danger of the bank's going under before the decay could be reversed. Then the circular added, almost casually, that if the bank became profitable and succeeded in its commercial and residential development goals, its ultimate goal would be "to sell to residents of the neighborhood the equity in the corporation, or alternatively in the bank."

But that radical punch line was only one line in 47 pages of hard business and banking sense, with the comforting word "profit" appearing frequently, and it was presented by Grzywinski with his special blend of youth (he is 40), energy, and experience as a bank president in Hyde Park and in Lockport, Illinois. Between the first offering (1973-74) and the second (beginning in 1975) nearly three million dollars was committed. And Ron Grzywinski bought a bank.

"The first day," Mary Houghton says, "nothing was different at the bank except that three new people came to work."

They went to work on August 23, 1973—Ron Grzywinski, chairman of the board, Mary Houghton, vice-president, and Milton Davis, president. Mary Houghton, tall, with an open engaging smile, walks with a long stride, bent forward as if hurrying to see around the next corner. She is forthright and accessible—hallmarks of the entire staff, by design as well as by inclination. They came to a bank where their predecessors had been distrusted, even despised by many black residents, a bank that had been run by white males who had tried their damndest to get out of South Shore. Now here was a new bunch taking over; was the fact that Houghton was female and Davis was black and Grzywinski "cared" about people enough to convince South Shore that things had really changed?

Not for a long time. "The population was nervous about the bank," says Calvin Bradford (of the Circle Campus College of Urban Sciences), who has been studying the South Shore community. "They took one look at these people who came in saying, 'We're going to remake your neighborhood,' and their first reaction was to say, 'The hell you are.' No one knew whether they were bankers or some new kind of community group. Did they want to make a splash and then leave, or a fat profit and then leave, or did they really have something new in mind?"

There is one tested way to reach into a community and convince people you're for real: Grzywinski and Davis did what independent precinct workers in Chicago have done for years; they had a coffee campaign.

They started in the lobby of the bank, Grzywinski young and roseate, Davis short, stocky, dark, with a quiet smile and an even quieter voice, almost a murmur. (Oddly, all three of them, Grzywinski, Davis, and Houghton, speak in low tones, sometimes mumbling, as if the radical things they have to say—radical for bankers—are better said slyly and then put into action.)

Davis and Grzywinski stood in the lobby of the bank, offering coffee, asking questions—What do you want from the bank? What do you want for South Shore? What services are important to you?—and talking about themselves at the same time.

Then they went to living rooms, recreation centers—wherever they could wangle an invitation. Sometimes only three people came to listen; at other times, up to a dozen. But information travels, and one special piece of information got around: With the new ownership, no resident of South Shore could be turned down for a loan unless Grzywinski, Davis, or Houghton agreed. The days of low-echelon summary refusals were over. "What they'd had," says Houghton, "was some stuffy banker talking to a street-wise black. They just talked past each other. Eventually they stopped talking altogether."

"Of course, we do turn down applications," Grzywinski says. "We should take more risks, but our interest is in surviving."

"The point is," adds Houghton, "that many loans can be made less risky if someone tries to put a package of protections together. That's one of our main roles."

But the coffee campaign wasn't only about loans; it was also about deposits, urging South Shore residents to "plant your money close to home," to deposit their dollars where the dollars would stay, in the form of loans, mortgages, and investments.

Eighty thousand people live in South Shore, with a total of more than \$110 million in their bank accounts, most of which are in large downtown banks.

In 1974, the Chicago Disclosure Ordinance required those banks wanting to qualify as depositories for city funds to disclose the amount of their savings deposits and home loans in every census tract in the city. Some of the disclosures:

In 1974, Continental Bank made 92 percent of its loans in suburbs, eight percent in the city, of which 59 percent were made in the North Side Gold Coast and three percent downtown.

Harris Trust and Savings made 95 percent of its loans in suburbs, and five percent in the city, of which 49 percent were made in the Gold Coast.

First National made 76 percent of its loans in suburbs, 24 percent in the city, of which 46 percent were made in the Gold Coast.

In 1974, six banking institutions (Continental, LaSalle, First National, Exchange, Central, American National), with \$144 million in savings deposits from the communities of Logan Square, Austin, Roseland, West Englewood, and South Shore, returned to those communities one-half cent on the dollar in home loans.

To the argument that no one in these red-lined communities asked for mortgages, or qualified, the officers of the South Shore Bank responded with skepticism in 1973 and 1974. In 1976, they responded with figures on home mortgages they made in South Shore in that year alone: 52 loans made for a little over one million dollars. At the end of the year, only two were delinquent.

While the evenings were given over to downing coffee and talking up the new policies, the days were occupied with raising a sinking bank. In the 12 months before the new owners took over, \$6.3 million in deposits had been withdrawn. Customer fraud and delinquent personal loans were rampant, and reporting systems were poor.

It took 26 months for the new owners to report to their shareholders that "in 1975, the South Shore National Bank restored profitability to its operations and, for the first time in seven years, experienced substantial growth in ordinary deposits."

(By the end of 1976, Grzywinski was beginning to talk about the possibility of paying dividends to shareholders, as each quarter's profits were dramatically higher than those of the preceding quarter. His goal is to pay a standard (for banking) return of ten to twelve percent on invested capital, which would, he says, "make it very difficult for bankers to say that profitability and development are mutually exclusive.")

The new owners had put a host of new procedures into practice. They hired a number of highly professional banking people, and others whom Mary Houghton calls "compulsive, flexible people who don't necessarily have a banking background, but are very good at solving problems."

They rewarded tellers for speed and accuracy with the highest teller salaries in the city, which, together with tighter procedures, reduced teller fraud and carelessness and eliminated the long lines that had infuriated would be depositors.

Interest rates were made competitive with those of downtown banks; certificate-of-deposit accounts were made available; free-checking-with-savings accounts were introduced; banking hours were lengthened to six p.m. on weekdays and, for the first time, included Saturday mornings; data processing was upgraded; loan collection procedures were strengthened. "The Bread Rapper," a bimonthly newsletter in the format of Illinois Bell's "Telebriefs," was inaugurated and sent to all checking-account customers; it is both a community newspaper and a regular report of bank activities.

And they redecorated the bank, inside and out.

"I was ashamed to say I worked there," Houghton says. "It was grubby and depressing. I remember there was a sign up front above the teller cages that said, 'We no longer give deposit balance information.' It was filthy and covered with fingerprints; it had been there for three years."

They replaced the blue tile on the exterior walls with new brick facing; the lobby was completely redone with carpeting, sofas, bright lights, graphics of the bank's new logo, a walnut counter for tellers, ceiling-high plants, and a dramatic burgundy-and-blue color scheme.

"People had been saying the bank must be in trouble," Houghton says. "Any place that looked as lousy as this one did had to be in trouble. Which was another way of saying how bad things were in South Shore. Then we fixed up the place and people began saying the bank must be doing well, and that meant South Shore was doing better because not only were we staying here, but we looked prosperous. And if we believed in South Shore, that was big news because bankers always know what's safe to believe in, right?"

By the end of 1976, with a remodeled bank, a new drive-in facility recently opened two blocks west on 71st Street, land cleared and construction under way for a much-needed parking lot across the street, and a lobby that was becoming a community social center, the bank had 30,000 deposit accounts totaling \$47,844,300. Its assets stood at \$54,500,580, and its profit for the year was \$420,000. More important, it had financial fingers in a number of South Shore pies.

That, after all, was the main idea. The bank Sales Book, which is given to potential investors, sets this sentence alone on one page: "To our knowledge, INDC [Illinois Neighborhood Development Corporation] is the only bank holding company organized for the primary purpose of neighborhood renewal."

"What we had to do," Milton Davis says, "was put people and their money together." He smiles: such a simple idea. He sits in his small office off the main lobby, with just enough room for a desk and two guest chairs; his door is usually open. For weekly meetings he goes upstairs, past the small alcove off the hall where Mary Houghton has her desk, and into the combined conference room and Neighborhood Development Center. (Until recently, Ron Grzywinski used the conference table as his desk; finally, after three years, he has his own office: a cubicle at the end of the upstairs hall.)

At the weekly meetings of the various bank committees, people and their money are put

together—when possible. The various committees evaluate personal and business-loan applications from what could be the split-personality viewpoint of banker and developer. The drive behind these meetings is to keep the split from getting too wide.

"A banker is a judge," Grzywinski says. "A developer is an advocate. There's inevitable tension between the two. We try to be as creative as possible in keeping the tension to a minimum and being developers as much as possible."

"All mortgages," says University of Chicago sociologist Richard Taub, who has used South Shore as a living laboratory for three years, "should be seen as development techniques. Banks traditionally have been passive; instead, they should go out and actively seek people who can become owners. There's no other way to create a real sense of community, to truly develop an area."

Grzywinski agrees; it is basic to the way the bank views some mortgages—which, elsewhere, might be perfectly conventional loans—as tools for the development of South Shore. "Power runs to ownership in this country. If we can get a core of stable, home-owning families, a lot of the other problems that come with transient populations will be eliminated."

"And," adds Mary Houghton, "to do that we use every guarantee we can find—the Mortgage Guarantee Insurance Corporation, Federal insurers, good collateral, any solid help we can get to make mortgages others might refuse."

The center of these efforts is the newly formed Neighborhood Development Center, headed by Mary Houghton, with fund raising handled by Susan Davis.

The funds are raised from outside South Shore. Susan Davis has sent letters (signed by Ron Grzywinski) to more than 30,000 people, and has made telephone calls to hundreds of others, asking for savings deposits of at least \$1,000 as a unique investment in a community.

The approach is both conventional and offbeat. First, depositors are assured they will receive the same insurance protection and interest paid by all banks; they aren't being asked to plunge into risky waters. But Susan Davis also tells them that each \$1,000 they deposit produces \$500 in credit and \$25 in annual earnings, which goes directly into the rebuilding of South Shore. And the importance of that kind of investment to people outside the community (aside from the chance to do good without losing a penny) is that if the experiment works, if a neighborhood can be rehabilitated and made livable and attractive to the whole city, not only is the city strengthened, but other neighborhoods can have hope that eventually rehabilitation may spread as rapidly as urban blight does now.

There are, then, two "kinds" of money coming in to the bank: regular deposits from South Shore residents which, with bank investment activity, support the day-to-day operations, expansion, and so on; and development deposits, aimed at turning South Shore around, which are solicited from beyond the area and dispensed by the Neighborhood Development Center. Says Mary Houghton: "In most banks, rewards are given for caution. At South Shore we're more interested in innovation—not irresponsible, but still not the kind of caution exercised elsewhere. But even with innovation, there are proposals that no one in the bank will take a chance on; those are the ones we get in the development center. We try to find ways to minimize the risk, then one of us presents the application to the loan committee as its advocate. And still we turn down about 90 percent of the small-business loan applications we get."

Paul Carson, commercial loan officer, adds, "If all else fails, I ask the applicants if there's a brother or cousin or friend who

might go in with them and share the risk. If they can't find anyone, we have to give up."

The development center began with some dismal statistics:

In 1975, there were 148 vacant stores in South Shore totaling more than 200,000 square feet; 20 percent of all retail space in the area. Many of the occupied stores looked, and often were, marginal.

There was no central shopping area; only commercial strips with plenty of fast-food carry-outs and wig shops, but no mix of stores for one-stop shopping. As much as 80 percent of South Shore's sales potential went to shopping centers outside the area.

"Our customers were all gone," says Seymour Seder, in his elegant women's shop in Flossmoor Commons. His old store on 71st Street still has the outlines of the name Seder above the front door. "It wasn't that we wanted to leave; we had to leave."

"Everyone feels like a victim," Ron Grzywinski says. "The banks, the store owners, the people who leave, the people who move in. They don't talk about adjusting to new conditions; they talk about 'losing' a neighborhood."

"Bankers," says Milton Davis, "and many shopkeepers, had nothing in their back-grounds to give them an understanding of what was happening in South Shore."

Against expectations, the average income level of South Shore residents was no lower than it had been when the area was all white. But the spread became greater: about 17 percent of the residents earn more than \$20,000 a year; about 17 percent are on welfare (a close approximation, by the way, of the whole city); and "black money" was seen by financial and business people as less dependable than "white money." So shop owners fled, small-business loans were generally unavailable, mortgages and home-improvement loans were refused, and the weeds grew along the Illinois Central tracks that split 71st Street down the middle.

When the Neighborhood Development Center was formed, more than 13 percent of South Shore's housing units were in trouble: 476 buildings with 2,982 units were in abandonment, tax delinquency, foreclosure, or combinations of these. And a building that's in trouble has company; it infects the blocks in all directions. The biggest problem in South Shore was that the buildings most in trouble weren't clustered where they could be isolated for drastic one-shot action; they were scattered throughout the community, each infecting its own area.

Susan Davis's letters and phone calls for development deposits focused on the two problems of South Shore: deteriorated commercial strips and housing units in trouble. And the money has come in, growing from the first year's deposits of \$863,000 to a total at the end of 1976 of \$7,300,000.

But that isn't the whole story. When solicitation costs and development expenses (staff time, etc.) are subtracted, development income doesn't approach development expense. In a monthly report from the development center, Mary Houghton lists loans that "furthered the bank's development objectives by extending funds within South Shore in innovative ways." There were loans to small businesses and community groups, personal education loans, home-improvement loans, and mortgages (including several in the South Shore Villa, the showplace of development activity in South Shore). There were also one-time projects such as the preparation of a booklet for bank customers titled *A Guide to Banking Services*—a description of bank service charges, interest computation, ways to maximize earnings and avoid charges—following a trail blazed by California consumer groups pushing for full disclosure of bank charges.

All of this is "development expenses," which, in 1976, exceeded development income

by approximately \$125,000 (money that might otherwise have been paid as dividends to investors) mostly because of an item called "staff time."

It's one of the biggest and probably the most slippery expense for the bank, because without large infusions of staff time, development wouldn't happen. "Bricks and mortar are the easiest," Grzywinski says. Development is as much an attitude as it is a rehabilitated building. And that takes not only dollars, but energy and time.

Early on, the new owners went to the South Shore Commission, the community organization that, though buffeted and drifting, was the most intact group in the area. Commission members and bank staff established a resident advisory council to work with the bank on policy and to act as a liaison with the community. It is the only citizen advisory board to a commercial bank in the country.

"We don't replace the Commission," says Bob Pickens, chairman of the advisory council. "But we have committees that work directly with the bank—bank services, commercial development, housing, and marketing and education. We discuss with the bank whether certain businesses would be a good addition to the community, how the bank can help residents, what people expect and need from the bank. We thought it would be a good idea to have classes on balancing checkbooks, and the bank had them. They were very successful. The bank also provides space for us to meet, and research and staff time."

There it is again: staff time—provided on request to every group formed or in formation in South Shore. Staff time is provided to the Parkside Project, though a foundation grant pays the salary of the project director, Jim Bringley. Parkside (the northwest corner of South Shore) is the area's most deteriorated section. Bringley devotes full time there, going door to door, talking to people about their needs, locating owners, identifying the buildings being managed for demolition, and the status of tax payments. "At first we really weren't trusted," he says. "But lately that's changed. In one month we made seven home-improvement loans; we've applied for a grant to landscape three empty lots as parks. And through Model Cities and the Woodlawn Urban Progress Center, CETA [Comprehensive Education and Training Act] workers scraped and painted window frames. Do you have any idea of the amazing difference fresh-painted window frames make to the appearance of a building? And to the attitude of the people who live there, and to the whole block?"

"There are things we can do together with the city. If we find five or six people to buy a building of 12 or more units, the city would give a grant of 50 percent of the rehab money; the bank, together with other financial institutions and insurance companies, would finance the rest. We could do whole blocks at once that way. We have to make large, visible changes; there's no other way."

"If you inch your way along," says Cal Bradford of Circle Campus, "buildings die behind you as you go."

Bank staff time is provided to the South Shore Arts Association, a nonprofit group formed by residents to operate the Jeffrey Theatre. To insure room for future expansion, the bank has bought the building next door, which houses the theatre. The bank leases the theatre to the Arts Association and helps the group plan renovation and develop profitable management techniques. Profits—when they come—will be plowed into other community programs: summer concerts, ballets, plays, art fairs.

Staff time is provided to the South Shore Center on the Lake, a nonprofit group organized to save the South Shore Country Club from demolition. Though in disrepair from neglect by the park district, which now

owns it, the club is a natural community center, and the Center on the Lake, with bank help, is trying to find ways to keep that magnificent white elephant and its 65 acres available to the public.

Staff time is provided to the South Shore Block Club Coalition for United Action—residents who organized to renovate and sell a square block of abandoned townhouses in the center of South Shore. When the block club coalition and those abandoned townhouses came together at the bank, the trumpet call of the Fed ruling on bank holding companies sounded loud and clear—"to promote community welfare, such as the economic rehabilitation and development of low-income areas." As a direct result, the Jeffrey Development Corporation, a nonprofit subsidiary of the bank holding company, was formed and staffed by bank people, to work with community groups—specifically, for a start, with the block club coalition—to rehab housing units. The bank applied to the Chicago Department of Urban Renewal for a grant to hire an architect and housing consultant. It promised the coalition that it would appraise the units after rehab, write the proposal for interim financing of the rehab project on a revolving fund basis as soon as the houses were sold (the money would go back into the fund for use as interim financing of the next project), advertise for buyers, screen would-be purchasers, and provide mortgages.

The bank also promised to arrange financing for neighboring homeowners for improvement to their property (the inevitable "ripple" effect), to clean up the neighborhood, and to convert an open space (when a nearby building was demolished) to a playlot or park.

But perhaps the biggest step of all requiring staff time in line with the Fed ruling and the goals of the bank, is the latest one: the formation of the South Shore Area Development Company. The formal launching was at a reception at the South Shore Country Club, with 70 business and professional people and the guest of honor, Mitchell Kobelinski, director of the Small Business Administration (SBA). There were brief speeches and a slide show of a shopping mall in Maryland, and then everyone went back to work, but the occasion was important and the guests knew it. South Shore is one of the few communities (and the one most closely watched because of the presence of the bank) to have a nonprofit local development corporation (LDC) organized to borrow SEA money and funnel it to for-profit businesses for construction, modernization, or expansion. Up to \$500,000 per business may be borrowed at 6.625 percent for up to 25 years. The LDC will receive applications and screen them with the help of the bank, then borrow 90 percent of the cost of each project from the SBA, investing the other ten percent itself. (The ten percent can be a pledge of assets, though usually it will be dollars.) Merchants may be asked to put up 90 percent of the LDC's required ten percent, but the bank is looking for grants to fund the full ten percent required for each business.

While a few community groups have formed an LDC without much outside support, it is unlikely that the South Shore Area Development Company would have come into being without the bank. The spur to the renewal of South Shore has been the bank—there is a straight line from its staff to the South Shore Commission to the resident advisory council to the local development corporation.

(Paul Carson says, "I talk to people who used to come in for loans and weren't even listened to. Now, when I go to meetings, like the chamber of commerce, I hear people say, 'That's my banker.'")

Four years ago, conventional wisdom had it that by 1976 South Shore would be a slum.

An officer of a downtown bank says that major banks and savings and loans were trying to dump all their investments in South Shore. Talman Federal, for one, sold the South Shore Villa at a loss to a developer who remodeled it, converted it to condominiums, and made a profit on it. Two of the condominium mortgages were made by Talman.

Elsie Higginbottom, a vice-president of Baird and Warner, has developed, independently, two large high-rises in South Shore, financing the rehab work through the Illinois Housing Development Authority. He raised rents to attract more stable tenants and screened those who applied. "We have no robberies, no muggings; we don't need 24-hour security. We have a good mix of tenants; some units are subsidized for elderly residents under section eight of FHA regulations, but nobody knows who they are; there's no stigma. It's been a profitable venture for me, largely because the bank is there as an anchor in the community. You put people in the right frame of mind—believing in a place—and it's amazing what they can do."

"When a building is renovated," says Ron Grzywinski, "other people on the block mow their lawns, paint window frames, plant flowers. It happens every time."

"But," adds Higginbottom, "parts of South Shore will need more than private assistance to stop the cancer. Middle-class blacks are taking a 'wait-and-see' attitude, and the bad areas need massive kinds of help to convince those people to move in."

Saul Kilbanow is the director of Rescorp (Renewal Effort Service Corporation), a development company funded by 57 savings and loan institutions in Chicago. Rescorp has rehabilitated more than 150 units in large buildings in South Shore and soon will begin work on another 150. Kilbanow says, "We went in because the bank was stabilizing, commercially sound factor. And we made a profit of \$75,000. The main thing is that we did a highly visible cluster of buildings. Phase Two will be the same—several large buildings on one or two blocks, each unit rehabbed, the exteriors sandblasted, and the grounds landscaped. Our job is to demonstrate the potential of an area that we think will respond to a stimulus. We give the stimulus; we construct an environment."

The rehab done by Rescorp was financed by the Illinois Housing Development Authority (IHDA), as were Elsie Higginbottom's two buildings. Irv Gerick, the director of IHDA, echoes Kilbanow: "We went into South Shore because the bank was a source of private capital that would still be there when IHDA an Rescorp were gone. And we felt that the combination of IHDA money and the bank's presence would influence other developers. Nobody, after all, has enough funds to save a whole community. We look for strong developers, strong contractors, various protections against default, and an institution like the bank. A project has to make economic sense to make social sense; we've put seed money in to show our faith that South Shore can make sense both ways."

Once a month, on a Wednesday afternoon when the bank is closed, the officers and staff meet at Ron Grzywinski's Hyde Park home from three in the afternoon through dinner.

"It's really a chance for me to cook," Grzywinski says, but, though relaxed, the group spends an intense three hours reading and discussing reports on community groups like the Metropolitan Area Housing Alliance; bank activities; other banks in Chicago; and the South Shore community.

As he cooks Swiss chard (picked a few minutes before from the backyard vegetable garden), slices cucumbers (also just picked), and mixes up a salad dressing, Grzywinski

answers questions about the bank, especially, "What makes it different from other banks?"

"If you looked at most bank staff meetings, they wouldn't look like this one," he says, for openers. Fifteen to twenty people sit in a circle. They range in age from early twenties to over forty; they're about evenly divided between black and white. Uncompetitive among themselves, eclectic, with an air of defiance in their talk of "other banks" (especially attempts to get branch-banking legislation passed), they are absorbed in the continuing problems of the costs of banking, the costs of community renewal, the costs of even the less ambitious but first-step goal of stabilization of the neighborhood.

In a number of ways, South Shore has stabilized. Welfare and crime figures have stopped rising, though they haven't fallen. Since the new owners took over the bank, homes and apartments have appreciated between five and ten percent, depending on the area within South Shore. Foreclosures are down, though many buildings still are being managed for demolition. Six to seven large buildings a year are being converted to condominiums, increasing the number of owners—a major condition of stability.

Perhaps most important, community organizations are proliferating; all of them depend on the bank for staff time and facilities, but they are beginning to build their own momentum. Says Stanley Hallett of the Northwestern University Center for Urban Affairs, and a board member of the South Shore Bank: "People see things happening and they follow each other's lead. Something important has happened in South Shore: people are beginning to understand the structure of their neighborhood—specific problems, how they can be tackled, in what order, by whom, and when. The level of their goals, the agendas of their meetings have gone way up; large numbers of them suddenly are working very hard to get things done. That's all a function of their understanding who 'we' are and what 'we' have to do to make South Shore a good place to live. For all of this, the bank is necessary but not sufficient. The people are the first investors in their neighborhoods."

With the growth of community organizations, the apparent stability of the area, millions of dollars loaned by IHDA for rehabilitation, and loans and mortgages made by the bank, large businesses are re-evaluating South Shore.

Jewel Companies' Chicago real-estate manager, Pat Burke, says Jewel sees "nothing to discourage us in South Shore." The company is building a 44,000-square-foot store—"the largest in Chicago except for the Grand Bazaars"—at 75th and Stony Island. In addition, Jewel executives are "observing" shopping patterns to decide if they want to buy the land across the street which had been the chosen spot for a new National before that company decided to pull out of the Chicago area.

Walgreen's has expanded one store and is remodeling another; Certified food store owner Michael Berezin bought the Hi-Lo when it closed (retaining the entire staff) and in 1976 enlarged his own office space, citing the bank for "investing in people, which is the best way to invest in an area."

The consensus on the bank is not unanimous. When National wanted to expand its supermarket at 71st and South Shore Drive, which required demolishing a building (from which most of the tenants had already moved), neighbors objected to having a large store and a parking lot next to their apartment buildings. The bank defended the store at community meetings, and much of the opposition faded when National presented plans for fences and landscaping to screen the parking lot. With National gone, the issue has died, but it did revive the initial suspicions about Grzywinski, Davis, and

Houghton: Are they bankers or developers, and what do they expect to get out of us?

For some, the question lingers, fed by the bank's decision to raze buildings across the street for a parking lot. No one doubts the desperate need for parking on 71st Street, but residents did question the location: "They tore down buildings that were in good shape," said one at a recent town meeting held at the South Shore Country Club. "Those aren't the ones they should be tearing down."

Others question the bank's priorities. At that same meeting, Bill Saphir, president of one of the neighborhood councils in South Shore, challenged the decision to tear down buildings for parking instead of studying the feasibility of an area-wide transportation system, such as the mini-bus run by Michael Reese Hospital.

In all probability, when the now-empty land is surfaced and landscaped to Ben Weese's impressive design, the opposition will fade, and residents and shop owners will laud the bank for its leadership in providing parking in an area where people have been complaining about the lack of parking for more than 20 years.

The pattern of doubt, slow acceptance, and then lavish enthusiasm has been repeated throughout the three years the new owners have been at the bank by nearly every group with which they have dealt. Today it is difficult to find substantive local criticism. Whatever the future of South Shore, community leaders are convinced that it is the bank that will make that future happen.

William Strickland, whose Midas Muffler Shop on Stony Island is one of the most successful in the country, is one of the bank's strongest supporters, though he takes no active part in community organizations. "They're one of the few groups who still care about helping us. Don't you ever think things happen in this country by accident; the national commitment to help minorities has ended. If it weren't for the bank, we'd be left with the racism of the downtown banks, we'd be ignored just like we were before the bank changed hands, and South Shore would have gone nowhere but down."

The commitment of the South Shore Bank is not specifically to integration, but to the development of the community, whatever the make-up of its population. "We have too many massive problems to put integration near the top," Milton Davis says. "We have about 15 percent white residents now; if more white families are going to move to South Shore, it will be only when we have a stable community with good shopping and a relatively low crime rate. Right now, we're concerned with the people who live here."

Calvin Bradford of Circle Campus adds: "There's a feeling, finally, that a community doesn't have to die as soon as it 'turns black.' In fact, there's a waiting list for many buildings in South Shore. That doesn't mean the problems are solved, only that there are indicators they can be."

At the staff meeting at Ron Grzywinski's house, the talk is of MAHA studies on red-lining. Why would other banks make loans in South Shore, even if the South Shore National Bank is a profitable institution?

"For three reasons," Grzywinski answers. "First, legislative. There's a growing realization on the part of government that there won't be enough public monies to rebuild neighborhoods. And we have to rebuild them; housing units are desperately needed and it's far too expensive to build new units. So banks, savings and loan institutions, pension funds, and so on are being looked at as sources of money. There may well be legislation that will restrict the ways institutions may use some of their funds."

"Second, there's clout. Political leaders can say to the banks, 'If you want branch banking, if you want city deposits, if you want

other kinds of help we can give you, here's what you do.'

"And finally there are profits. There is enormous profit potential in the rehab of older buildings. If clusters of buildings are refurbished or completely rehabbed, there's a very big spread between a purchase price of say, \$3,000 for a building and the price its units can be sold for, even after adding in all the rehab costs. Rescorp has proved it. We're about ready to go into the community ourselves, as Rescorp has done: Our holding company would acquire and rehab properties for sale as condominiums or low-income co-ops if we could get Federal or private subsidies for them.

"Look at what's been done already in South Shore; not one developer who has come in in the past few years to rehab for sale or rent has lost money. Every one of them has made a profit. We're not saying we don't have a lot to learn; we're not saying there are no problems. Some are huge, and none of them are easy to solve. But we are saying that South Shore—and maybe most other deteriorating communities—aren't necessarily places where investors will get burned."

On Wednesday night, October 17, 1976, Alderman Ross Lathrop convened a meeting at the South Shore Country Club with representatives of the city's water department and an attorney from the corporation counsel's office. About 300 South Shore residents were there to hear what the city was going to do about the 60-foot hole in 69th Street and the property washed out by the broken water main.

The city, said the officials, was not legally responsible for the damage, but Mayor Daley had decided, "for moral reasons," to pay for ruined automobiles, personal property, and damage to the South Shore Villa, as soon as the residents filed their claims. The South Shore National Bank is providing staff time to help the residents with the paper work.

#### A TRIBUTE TO THE ESTONIAN PEOPLE

Mr. HEINZ. Mr. President, on February 24, 1977, Americans of Estonian descent celebrated the 59th anniversary of their declaration of the independence of the Republic of Estonia from the Russian Empire. First expressed late in August 1917 by Jaan Tonisson, the actual proclamation of independence 6 months later was a courageous step for Estonia to take, given the threatening military moves of both Germany and Russia at that time. As in other Baltic States, the initial independence of this courageous nation was short-lived, ending abruptly the very next day when German troops marched into the city of Tallinn. For decades, the oppressive measures of the German occupation alternated with equally harsh measures under Soviet domination, and Estonian hopes for independence waned.

Frequently, in times of national crisis, a symbol of hope emerges in the form of one strong personality. For Estonia, this symbol of hope can be found in the person of Konstantin Päts. On the very day the independence for Estonia was declared, Konstantin Päts was proclaimed Prime Minister of the First Provisional Government. Arrested by the Germans and sent to a prison camp in Poland, Päts returned after the German defeat and was proclaimed both Prime and Defense Minister. For the next several decades, Konstantin Päts was continuously

active in strengthening the young Estonian Republic, holding numerous public offices and eventually assuming the Presidency in 1938.

The events of World War II, however, never allowed Estonia to complete the realization of free and full independence. After a lifetime of able leadership in the critical days of his country, Konstantin Päts was deported to Soviet Russia in 1940. To this day, his fate remains unknown.

The fate of Konstantin Päts, and the fate of his country Estonia, is abhorrent to free men and nations everywhere. We can only look forward to the day when all nations under repression will regain their sovereignty, and when the cry of "Vabadus" will mean that Estonia's dream of independence as a nation will have again become a reality.

#### AMERICAN FILM INSTITUTE SALUTES BETTE DAVIS

Mr. RIBICOFF. Mr. President, the notable contributions of Bette Davis, a resident of Westport, Conn., to American motion pictures span nearly half a century. She is being honored in March with the American Film Institute Life Achievement Award for her remarkable career and for her role in our Nation's film heritage.

The trait most often identified with Bette Davis is her enduring independence. She cast her own unique image—one which has never been duplicated.

Her versatility as an actress is evidenced in the variety of her performances. Miss Davis has performed in historical dramas such as "The Private Lives of Elizabeth and Essex" and "The Virgin Queen," stage adaptations such as "The Little Foxes" and "The Corn Is Green," social commentaries, character studies, and comedies.

Miss Davis has appeared in more than 80 motion pictures since her film debut in 1931. Miss Davis' long-lasting popularity and continuing hard work is proof that talent can—and should—be encouraged and allowed to persevere. Now 68 years of age, she continues to star in films and television shows.

Throughout her career, Miss Davis has received critical acclaim, public admiration, and industry awards. Her talent has been acknowledged by scholars, critics, professional peers, and the general public. Her work has stood the test of time.

Such enduring Davis performances as "Jezebel," "Now Voyager," "Dark Victory" and "Juarez" attest to her theatrical ability. Films such as "Of Human Bondage," "The Petrified Forest," "All About Eve," "All This and Heaven Too" and "Mr. Skeffington" demonstrate Miss Davis' capacity to portray a wide range of characters and human feelings.

Miss Davis' career has been marked with scores of honors, including two Academy Awards for best actress. Her co-stars include Henry Fonda, Errol Flynn, George Arliss, Olivia de Havilland, Joseph Cotten, Paul Muni, Marilyn Monroe, Humphrey Bogart, Edward G. Robinson, Claude Rains, Barry Fitzgerald, Ernest Borgnine, and Faye Dunaway. Her producers and directors simi-

larly included Frank Capra, John Huston, Joseph Mankiewicz, William Wyler, and Michael Curtiz.

Many of Miss Davis' colleagues will be among the 1,200 friends, associates, and admirers who will attend a dinner in her honor in California on March 1. Highlights of this tribute will be shown on CBS-TV on Monday, March 21.

I am pleased that my constituent Bette Davis is to be honored for her impressive contributions to our uniquely American art form—the movies.

The American Film Institute Life Achievement Award, which was established by the AFI board of trustees, has been presented to the late John Ford, James Cagney, Orson Welles, and William Wyler. The award is but one of many activities of the AFI. The institute, created by the National Endowment of the Arts, has developed programs to preserve America's film heritage and advance the art of film and television. To accomplish these goals, AFI has established education and training programs, a film catalog and archives, and exhibition programs for classic films in Washington and at museums and universities nationwide. In the decade since it was established, AFI has developed new funding sources so that its Federal funding share has decreased annually. The Life Achievement Award is an important AFI function since revenues from the dinner and a subsequent TV show help support AFI general programs as well as funding scholarships at the AFI Center for Advanced Film.

#### LABOR'S LOVE LOST

Mr. PERCY. Mr. President, I have had a long-standing interest in public television, which began early in the 1950's. At that time, I was a director, and, later, chairman of the board of the fund for adult education of the Ford Foundation. We expended approximately \$22 million of Ford Foundation funds to establish what was then known as educational television in the United States and which subsequently became public broadcasting.

The Corporation for Public Broadcasting now has a budget of some \$100 million, in addition to the budgets of almost 200 public broadcasting television stations throughout the country. Funded by government, foundations, corporations and individuals, CPB has had a significant and beneficial impact upon American television. The quality and variety of its programming are well known and, for a large audience, these programs constitute the preferred alternative to commercial television.

It is with great concern, therefore, that I read the statement attributed to Bud Wolfe of the American Federation of Television and Radio Artists, a statement reflecting a spirit contrary to the intent and purpose of public television as it was originally conceived by private entities, Congress and the executive branch.

Because I believe this deserves the attention of my colleagues, I ask unanimous consent that an article by George S. Will from the Washington Post of

February 6, entitled "Labor's Love Lost" be printed in the RECORD.

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

LABOR'S LOVE LOST  
(By George F. Will)

I had not suspected that Shakespeare's works were George Meany's constant companions. Meany, head of the AFL-CIO, is known as tribune of the proletariat, not as a drama critic.

But the Corporation for Public Broadcasting has decided to become a minor partner in the British Broadcasting Corporation's production of Shakespeare's 36 plays, which will be shown on U.S. public stations. And after prayerful contemplation, Meany has announced that the decision is not justified economically or "artistically."

Meany is gifted at cloaking narrow interests in broad phrases. Actually, he considers the CPB decision unesthetic because the small sum involved will not be spent to employ members of his unions.

The CPB will pay the BBC \$200,000 a year for six years, a tiny fraction of the more than \$100 million the CPB will spend on programming in that period, and a small fraction of the \$13.5 million the BBC will spend on the series. Exxon and Morgan Guaranty Trust Company each will match the CPB contribution.

Bud Wolf of the American Federation of Television and Radio Artists says this is "shocking" evidence of the CPB's "monumental insensitivity" to public television's purpose. He thinks it may be necessary to ask Congress to "prevent federal funds from being used to subsidize runaway production."

Wolf says it is "obscene" for corporations to use "tax-free dollars" to export American jobs." It is probably a measure of Wolf's confidence in his argument that he tries to make up with megatonnage what his words lack in accuracy.

One of the CPB's assignments from Congress is to contract for "programs of excellence and diversity." Congress has said nothing about discriminating against foreign productions. In the Shakespeare series, federal funds will not subsidize "runaway production" or the "export" of jobs. The BBC was going to produce the series in any case. The "obscenity" of which the CPB, Exxon and Morgan Guaranty are guilty consists of getting a spectacular series for America at a bargain price.

It is true that the BBC limits non-British productions to 14 per cent of its air time. But that is no reason for punishing American viewers with reciprocal protectionism.

Besides, the BBC spends 10 times as much on U.S. imports as it receives from exports to the United States. And even with three British series on our public television in the first half of this year, all foreign programming is expected to constitute less than 10 per cent of total programming.

One of the purposes of public television is to expand the horizons of commercial television, and public television has done this with British imports. ABC's spectacularly popular "Roots" was made possible, in part, by "The Forsyte Saga" and "Upstairs, Downstairs." The popularity of those series on public television gave commercial TV a new sense of possibilities in terms of novels adapted to television.

But Bud Wolf from AFTRA is so extreme in his opposition to the Shakespeare series that he even objects to the arrangement whereby the CPB will recoup its original investment by selling the series to schools. He says this will injure American children because they will be "told by example that only foreign culture is worth learning and American artists have no standing of their own."

Wolf's argument that British productions of Shakespeare must be bad for impressionable American children is a sample of the philistinism we can expect if labor bosses become, as they are trying to become, arbiters of televised culture. And this is not an abstract danger.

Implicit, and sometimes explicit, in the arguments of Wolf and kindred spirits is a demand for cultural protectionism. This might take the form of a quota on cultural imports for public television, or of a ban on the use of public funds, or tax-deductible private contributions, for purchases of foreign productions.

When protectionists try to limit imports of foreign shoes, they are just attempting to take money from our pocketbooks. But when they try to limit our exposure to the likes of Hudson the butler in "Upstairs, Downstairs," or to Plantagenet Palliser in the current Trollope series, the protectionists are tampering with the nation's mind, and deserve the severest punishment.

They should be chained to a chair in front of a set tuned to commercial television's routine offerings.

AIR POLLUTION CONTROL  
PHILOSOPHIES

Mr. GARN. Mr. President, some time ago, President Carter's nomination as chairman of the Council of Economic Advisers came before the Committee on Banking, Housing, and Urban Development, of which I have the honor to be a member. I was pleased to see that the nominee, Mr. Charles Schultze, has economic ideas which differ significantly from the traditional Democratic programs. Of course I did not agree with all of his views, but I was happy to discern a willingness to look at the evidence, and reach for solutions which go beyond the usual.

In one area in particular, Mr. Schultze and I had a fruitful exchange. We discussed the idea of pollution charges as an alternative to the absolute standards approach that has characterized so much of environmental protection in the United States in recent years. This is an approach which, it seems to me, deserves more attention than it has received. I wrote to President-elect Carter last December, suggesting that his administration carry out an immediate study on the possibilities of pollution charges in promoting air quality in the United States.

Today, Mr. President, I would like to call to the attention of Senators an article written by a professor at the University of Utah, Dr. Noel de Nevers. The article was prepared for the March 1977 issue of the Journal of the Air Pollution Control Association, and discusses four major air pollution control philosophies, including pollution charges.

Dr. de Nevers discusses the strategies of emission standards, air quality standards, emission charges, and cost benefit analysis in their pure forms, and the extent to which each has been used in the past in the United States. I found his discussion illuminating, and think other Senators might.

I ask unanimous consent that Dr. de Nevers' article be printed in the RECORD, and hope that my colleagues will take this opportunity to read it.

There being no objection, the article

was ordered to be printed in the RECORD, as follows:

AIR POLLUTION CONTROL PHILOSOPHIES  
(By Noel de Nevers)

(NOTE.—Figures referred to in text are not printed in the RECORD.)

INTRODUCTION

Although air pollution control actions have a history reaching at least as far back as the 13th Century, the major efforts have taken place in this century. The people who undertook these efforts tended to "control pollution" rather than philosophies. However, the magnitude of the effort now being made and the public controversies which have surrounded it indicate the need for some philosophical understanding of air pollution control.

Some of the controversies have resulted from the fact that the opposite sides in the controversies were basing their views on entirely different philosophies, and did not recognize that; and some have resulted from the fact that the philosophies have been applied in mixed forms, without clear delineation of which philosophy was truly the governing one. In this paper the philosophies are examined as if they existed in "pure form," even though in practice they often occur in mixed form.

The wish of all concerned with air pollution is that we could have a completely unpolluted environment at no cost to anyone. That is apparently only possible if we can repeal the laws of nature. Since that appears impossible, our logical goal is to have an appropriately clean environment, obtained at an appropriate cost, with this cost appropriately distributed among industry, car owners, homeowners, etc. An air pollution philosophy is a fundamental idea or set of ideas about how one would determine what constitutes an appropriately clean environment, appropriate control cost, etc. These ideas must be implemented by detailed regulations. Such regulations have been the subject of controversy in recent years. The purpose of this paper is to examine the underlying ideas on which such regulations are based. In setting forth these detailed regulations, one can do it in a strict way or a lax way (one may choose to err on the side of strict control or on the side of minimum control cost). Whether one should be strict or lax in applying the philosophy is a question separate from the questions about the underlying philosophies which this paper discusses.

THE PROPERTIES OF A GOOD PHILOSOPHY

Considering the difficulties we have had with various kinds of air pollution control regulations and their underlying philosophies, we can formulate a list of the properties which a perfect air pollution control philosophy and its implementing regulations would have. A perfect air pollution philosophy (and its implementing regulations) would be cost-effective, simple, enforceable, flexible, and evolutionary.

A cost-effective philosophy gains the maximum possible benefits (reduced damages or discomforts) for the resources expended on pollution control. A simple philosophy (and its implementing regulations) is understandable to all involved in the pollution control effort and does not require legal interpretation of every word of the regulations. An enforceable philosophy and its regulations is one which makes clear who must do what, in a way which courts of law will enforce. A flexible philosophy and its regulations has a good way of dealing with emitters with special difficulties (control equipment breakdown, delays in control equipment delivery, etc.). A flexible philosophy and its regulations enables us to take into account new data on the effects of pollution and new

developments in control technology without major overhauls of our legal structure or major revisions of existing industrial plants.

#### THE FOUR PHILOSOPHIES

The four philosophies of greatest interest are emission standards, air quality standards, emission taxes, and cost-benefit standards. The first two are in current use in the USA and other industrial countries and are fairly well understood. The latter two have mostly been the subject of academic publications and have not had much practical testing.

Each of these philosophies can be stated and examined in "pure form," as is done here, and could in principle be applied in pure form. As later examples will show, this is not always done.

#### EMISSION STANDARDS

The basic idea of the emission standard philosophy is that there is some maximum possible or practical degree of emission control. This maximum degree of control varies between various classes of emitters but presumably can be determined for each. If it is determined for each, and each member of that class of emitters is required to control his emissions to this maximum degree possible, then we will have the lowest possible emission rate. Because emission rate and air cleanliness are inversely related, it follows that if this philosophy is carried out rigorously, we will have the cleanest possible air. Thus in the pure form this might reasonably be called a "cleanest possible air" philosophy.

Apparently the first large-scale application of this philosophy was in the form of the Alkali Acts in England starting in 1863.<sup>1</sup> These followed the introduction of the Leblanc process for manufacturing soda ash (an alkali). A byproduct of this process is hydrochloric acid, which in the original form of the process was emitted from the plant's smokestack as a vapor or mist. This emission devastated vegetation downwind and led to controversy and legislation. The legislation created the corps of "alkali inspectors" whose duty was regularly to inspect all alkali plants and to find the best techniques for minimizing the emission of harmful pollutants. Once such a technique had been shown to be effective in one plant, the inspectors forced all the other plants to adopt it. Thus, in this case, the emission limitations were steadily made more stringent as the control technology developed, and each member of the class was obliged to meet the same emission limitation as the cleanest member of the class. This kind of application is frequently called the "best technology" type of emission standard because the requirement which is placed on all the members of a class is that they employ the best technology currently available for controlling emissions and that they keep the control equipment in good operating condition. In this type of regulation there is generally no specified emission rate or emission test; the operator who installs and operates properly the "best technology" is deemed to be complying with the regulation. The English equivalent phrase for "best technology" is "best practical means." English air pollution law is very strongly oriented to best practical means.<sup>2</sup>

This "best technology" approach is in widespread use and is well liked by the air pollution control fraternity. For example, the Los Angeles Air Pollution Control District Rule 56<sup>3</sup> requires all parties who store gasoline in quantities of 40,000 gallons or more to store it in a floating-roof tank or a tank with a vapor-recovery system or some other system which can be shown to be of equal control efficiency. Many other jurisdictions have followed this procedure for controlling emissions from gasoline storage. Measuring emissions from a floating-roof tank is a difficult task; but since a well-maintained one is a low-emission storage system, this has been a widely approved technique.

A different kind of emission standard is the prohibitive standard; for example, the widely applied prohibition of open burning of combustible wastes. This is an emission standard because open burning is not the minimum-air-pollutant-emission way of disposing of such wastes. Land fill or closed incineration produce much lower air-pollutant emissions. By forbidding open burning, we force waste-disposers to use better technology.

A third kind of emission standard is a visible emission standard. This was introduced into air pollution by Ringleman,<sup>4</sup> who devised a system for visually estimating the opacity of emissions from the chimneys of coal-burning furnaces. Since the opacity is related to the rate of emission of particles (not by a simple relation), limiting the opacity of the effluent limits the particle emission rate. This type of regulation has the virtue that trained smoke readers can make such readings very quickly and inexpensively without entering the plant from which the emissions come. Thus the Ringleman test is a cheap, rapid tool for emission regulation and enforcement.

Fuel-sulfur content limitations and olefin-content limitations in gasoline are also emission limitations because most of the sulfur in fuels enters the atmosphere as sulfur dioxide and because olefins are more effective in causing photochemical smog than equivalent amounts of other hydrocarbons.

The final kind of emission standard is the numerical one. For example,<sup>5</sup> under current EPA regulations, no coal-fired electric power plant whose construction commenced after August of 1971 may emit to the atmosphere more than 1.2 pounds of sulfur oxides per 10<sup>6</sup> BTU of fuel burned as determined by stack test. Similarly, 1976 model automobiles may not emit more than 1.5 gm/mile of hydrocarbons in a well-defined test procedure.<sup>6</sup>

All of these kinds of emission standards and their variants have the same general idea; namely, that there is some level of control of emissions which it is practical to ask all members of a well-defined class of emitters to achieve and that that level of control should be achieved by all members of the class nationwide.

This philosophy has been the basis of most of the air pollution control activities in the industrial world for the period between 1863 and 1965. In current U.S. air pollution law, there are two sections which are "pure" emission standards. These are the New Source Performance Standards,<sup>7</sup> which set nationwide maximum permissible emission levels for various classes of emitters (new electric power plants, new sulfuric acid plants, new municipal incinerators, etc.) and the Hazardous Pollutant Standards<sup>8</sup> which set specific emission regulations on mercury, beryllium, and asbestos. These latter three pollutants are considered to be inappropriate to attempt to control by the air quality standards philosophy (discussed later). Although it is not clear in the Clean Air Act that ambient air concentrations should play any role in setting Hazardous Pollutant Emission Standards, EPA did in fact consider them in setting the beryllium and mercury standards.<sup>9</sup>

These are "pure" emission standards in the sense that the emission rates permitted were determined on the basis of "best technology" in the way described above and were not determined as a subsidiary to some other philosophy. In addition, there is a set of emission standards for motor vehicles<sup>10</sup> whose values were determined not by inquiring what was the best available technology but rather by deciding on the basis of the ambient air quality standard philosophy (discussed later) what emission level was permissible and then making that emission level the standard.

Because the standards arrived at this way

were more stringent than could be met by the then-current "best technology," this is referred to as a "technology forcing" emission standard.<sup>11</sup> Many state and local air pollution agencies have emission standards, both "pure" emission standards based directly on their assessment of what is "best technology," and those based on an overriding application of the air quality standards philosophy.

#### THE ADVANTAGES AND DISADVANTAGES OF EMISSION STANDARDS

Table 1 compares emission standards (and the three other philosophies to be discussed later) with the list of qualities previously given. The emission standard philosophy's cost effectiveness is very bad. If we apply the same uniform emission standards to a class of emitters including those at a remote location and those in the center of an industrial, densely populated area, then if the standard is stringent, the remote plants will make a large expenditure with a small reduction in damage to receivers and hence a small benefit. If the standard is lax, then the plants in the industrial area will not be controlled to the degree which minimizes the damages to the surrounding population. This is a natural consequence of the application of a common standard ("cleanest possible air") to densely populated and sparsely populated areas.

Because of this poor cost-effectiveness, we frequently do not apply the emission standard philosophy in its "pure form," but rather apply it in modified forms which take the location of the source into account.

The simplicity of the emission-standard philosophy is excellent. The entire set of regulations consists of the permitted emission rates and the description of the test method to be used to determine if the emission standards are met.

The problem of the tradeoff between cost-effectiveness and administrative simplicity of the emission standard strategy is well illustrated by the history of the emission standards for motor vehicles in the United States. In 1967 the automobile manufacturers petitioned the Congress of the United States to write uniform motor vehicle emission standards for the whole United States and forbid the states from individually writing their own. They did so because they feared the complexity of having to produce a multiplicity of different vehicles to meet different state standards.<sup>12</sup> In 1973 they petitioned Congress to do the reverse and allow it to use a "two-car strategy" in which very stringently controlled vehicles would be sold in areas with severe air pollution problems, and much less stringently controlled vehicles would be sold in areas without severe air pollution problems.<sup>13</sup> They did this because they believed that the extra expenditure for stringently controlled cars in areas without severe air pollution problems was not cost-effective.

The enforceability of the emission standards philosophy is excellent. Once standards are set and test methods defined, one knows whom to monitor and for what; and violation criteria can easily be written and penalty schedules formulated.

The flexibility of this philosophy is poor. If a plant orders pollution control equipment in good faith and the equipment fails to meet the manufacturer's predicted performance criteria (and hence the emission standards), it will generally take years to replace it. How should the control authorities deal with this plant? Under this philosophy they can close the plant, fine it, or give it a variance to operate until the equipment is fixed. Experience has shown that plant closing is politically impossible, serious fines are politically very difficult, and the variance is an invitation to infinite delays, but under this philosophy there are no other obvious alternatives.

Footnotes at end of article.

The evolutionary ability of this philosophy is fair. If a new technology makes it possible to set a lower standard, it can be done for all sources built after a certain date. This works well for autos, whose lifetime in the economy averages 10 years, but poorly for industrial plants, whose lifetime is 30 to 50 years. Mandating a lower emission standard for plants built after a certain date will help the air quality in areas undergoing growth after that date but not those which do not have such growth.

In its early days this was an excellent philosophy. Most of the progress which has been made in air pollution since 1863 was made by the application of this philosophy. The "best technology" approach made sense for the Leblanc soda-ash plants because their pollutant could be collected and sold at a profit. It made sense for coal-burning furnaces because their black soot emissions were wasted fuel. But most of the air pollutant emissions which can be recovered and sold at a profit are now being so collected and sold. Further progress in control of air pollutants (either to get to cleaner air or to maintain current air cleanliness in a time of industrial and population growth) will be made by applying more stringent controls to sources which cannot recover a saleable product or reduce expenses by reducing emissions. For this problem, the emission standard philosophy is useless.

This uselessness is illustrated by the question of the design efficiency of electrostatic precipitator for large particulate emitters, e.g., coal-fired electric power plants. The typical percent recovery of particulates by new installations has risen steadily over the past two decades, from 90 percent to 99+ percent. There appears to be no reason why we cannot build precipitators with recovery efficiencies of 99.9 percent or 99.99 percent, etc. The most general design equation for these precipitators is the Deutsch-Anderson equation<sup>14</sup>

Equation 1:

$$\text{collection efficiency} = 1 - \exp(-v_d A/Q)$$

where  $v_d$  is the "drift velocity" which is an appropriate average particle movement velocity toward the collecting plates,  $A$  is the area of the collecting surface and  $Q$  is the volumetric flow rate of gas being cleaned. The cost of an electrostatic precipitator is roughly proportional to the area of the collecting surface ( $A$ ) so that for a given installation (and hence a constant  $Q$  and  $v_d$ ) we can say approximately

Equation 2:

$$\text{collection efficiency} = 1 - \exp(-\text{some constant} \times \text{cost})$$

Thus, according to Equation 2, if it costs  $N$  dollars to install a 90 percent efficient precipitator, it will cost  $2N$  for 99 percent,  $3N$  for 99.9,  $4N$  for 99.99, etc. (This is only approximate because precipitators collect the big particles preferentially so that as efficiency goes up, the average value of  $v_d$  goes down.)

Given this approximate cost-efficiency relation, what is the "best technology" or "cleanest possible air" value for this kind of installation? Clearly, we can mandate any level of control efficiency we wish, and the precipitators can be built to meet them. If the level of "best technology" is deemed to be 99.5 percent (a typical current value) and some plant installs a 99.95 percent efficiency one, shall we then mandate that all future plants should install precipitators that efficient?

That is the logical result in the pure form of this philosophy. At that point the effluent would contain approximately 6 percent as many particles per unit of heat released as the typical home oil-fired space heating

furnace.<sup>15</sup> However, even then we could design and build more stringent control devices if we wished. Should we?

If society had infinite resources and were willing to commit them to the control of air pollution, this would not be a difficult question. But I believe society has finite resources and will probably only commit some fraction of them to air pollution control. If this is correct, then it would seem folly to commit all of them to this particular kind of pollutant. But the "best technology" philosophy or "cleanest possible air" philosophy if carried out relentlessly, would lead inevitably to that. For this reason, those who have tried to apply this philosophy have generally tempered it with some qualifier like "taking costs into account." The same idea appears in the protracted discussions over the meanings of terms such as "good technology," "best reasonable technology," "best demonstrated technology," and "reasonably available control technology," and "best available control technology."<sup>16</sup> These all reflect the fact that this philosophy, if pursued to its logical conclusion, leads to impossible results. Thus although it has been useful in the past, it provides little guidance for the future.

The dilemmas of this philosophy are also illustrated by an example from the author's personal experience. In trying to prevent this relentless application of this philosophy, Congress, in the Clean Air Act of 1970<sup>17</sup> required that one of the emission standards should be based on "... the best system of emission reduction which (taking into account the cost of achieving such reduction) ... has been adequately demonstrated." EPA based its power-plant sulfur dioxide regulation on the demonstrated performance of the largest limestone scrubber then in operation in an investor-owned power plant in the USA. The electric utility industry then pressured the owners of that plant to disavow it and claim that it was not functional, practical, etc. EPA pressured the owners to defend it. These conflicting pressures were so great that when I asked the vice president of that power company for a simple public relations photo of the plant to use in a magazine article,<sup>18</sup> he refused. If the whole industry must do whatever the most advanced has done, then he who advances fastest incurs the wrath of his colleagues. Given this basis for standard setting, the electric power industry has taken action to prevent one of its members from installing advanced control equipment on its plants.<sup>19</sup> If that member succeeds, all must follow, whether it is a prudent use of the country's resources or not. This particular case (limestone scrubbing for sulfur control) is an issue which is under intense, current national debate. The emission-standard philosophy gives no guidance at all on how that debate should be resolved.

#### THE AIR QUALITY STANDARDS PHILOSOPHY

If the emission standards philosophy is logically a "cleanest possible air" philosophy, the air quality standards philosophy is logically a "zero damage" philosophy. To see why, consider a dose-responsive curve, Figure 1.

We know most about dose-response curves from pharmacology where one regularly gives laboratory animals known doses of experimental pharmaceuticals and measures their response. From theory and experiment,<sup>20</sup> we know that for pharmaceuticals the most common dose-response curve is the "no-threshold" curve, which passes through the origin. A quite different view prevails in industrial hygiene. There it has been observed that for workers industrially exposed to toxic materials there is some exposure concentration, called the "threshold value," which "represent(s) conditions under which it is believed that nearly all workers may be repeatedly exposed day after day, without

adverse effect."<sup>20</sup> These values, called "threshold limit values," are established by industrial hygiene boards; and industrial plants are expected to protect their workers from higher values.

The air quality standards philosophy is based on the assumption<sup>21</sup> that the true situation for most major air pollutants is the "threshold value" situation sketched in Figure 1. If that assumption is true, and if we can determine the concentration values (including time of exposure) which correspond to such threshold values, and if we can regulate the time, place, and amount of emissions to guarantee that these threshold values are never exceeded, then it follows as an inescapable consequence that there can be no air pollution damage, ever, anywhere. This is precisely what the air pollution community is trying to do now in the USA, in carrying out the air quality standards philosophy which is the basic philosophy of the Clean Air Act of 1970.

To implement this philosophy, some body or group must study the available dose-response data and determine what are the "threshold values." In U.S. air pollution law, these are to be set "with an adequate margin of safety . . . to protect human health,"<sup>22</sup> and are called Ambient Air Quality Standards. (Note the upbeat wording; this really means permitted levels of contamination.) The Environmental Protection Agency has established such standards for five major pollutants.<sup>23</sup> The state are now attempting to manage the air quality to assure that those standards will not be violated, ever, anywhere. How this is being done is illustrated, in flow-chart form, in Figure 2.

The process (for some specific locality) begins with a measurement of the ambient air quality. This is then compared with the standards. If the measured value is acceptable (i.e., less than the Ambient Air Quality Standards) then the next step is to compute the predicted future air quality over some finite time period. If this is acceptable, no action is needed. If the future emissions (taking into account population and industrial growth, etc.) are above the standards, then emission regulations must be devised to prevent this predicted future violation.

If the current values are above the permitted values, then emissions must be reduced to bring the current values into compliance with the standards. To do this, one must have some way of estimating the relation between emissions and ambient air quality. This is normally done by means of some kind of air quality model.

Based on these models, one computes a set of needed emission reductions, enacts the regulations to compel the emitters to reduce their emissions, enforces this set and, once the emissions have been so reduced, again measures the ambient air. If the standards are not met (and the emissions have indeed been reduced as required by the model) then the modeling exercise must be repeated and the entire cycle repeated until the standards are met. This process was begun in the USA for the first time in the spring of 1971<sup>24</sup> with the standards all to be met in 1975.

Delays in meeting the standards were granted, as provided by law, in some cases. The states and the EPA are now in the process of determining where the standards are and are not being met, and thus initiating the second trip around the loop shown in Figure 2.

Comparing the air quality management philosophy with the list of desirable qualities described above (See Table I), we see that its cost effectiveness is good but not excellent. It has the virtue of concentrating pollution-control expenditures in the areas with the worst pollution problems and allowing higher emission rates (and lower pollution control expenditures) in areas with

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less serious problems. However, once a set of nationwide air quality standards has been set, they must be met everywhere, even in areas seldom or never visited by people. Thus, it will require some control expenditures for which the damage-reduction benefits will be small.

To date no one has found a way to write a simple set of regulations based on this philosophy. EPA's best efforts to write a simple set of regulations to enforce the air quality standards philosophy in the Clean Air Act of 1970 have resulted in a very complex set of regulations which have been the subject of a seemingly unending set of legal challenges. Some critics have referred to the Clean Air Act of 1970 as the "Lawyers' Full Employment Act of 1970." The reason for this complexity is that we are attempting to control the concentration of pollutants in the ambient air. Those concentrations are influenced by a wide variety of emitters, some nearby, some far away. The connection between their emissions and air quality at a given point depends on the meteorological transport and dispersion of the pollutants<sup>23</sup> and atmospheric reactions of the pollutants.<sup>24</sup> Neither of these subjects is well enough understood to allow exact and unequivocal calculations of the contributions of individual emitters to specific location concentrations in urban areas. Given this uncertainty, regulations attempting to deal with local and long-distance polluters have been promulgated, and contested in court, with resulting modifications and complexities.

The enforcement difficulty of this philosophy results from the same cause as its complexity; namely, that one is trying to enforce air quality. When the air quality standard is not met, it is not generally obvious who is responsible. Furthermore, some industries have proposed "intermittent control plans" in which they would reduce emissions at times of poor atmospheric dispersion, and thereby meet the standards with higher annual emissions than would result if they controlled emissions constantly at a level which led to meeting the standards at all times. If the philosophy of air quality standards were enforced in an absolutely "pure" way, this would seem to be a sensible way to meet them. However, there are some objections concerning long-range transport of pollutants<sup>25</sup> and in addition an enforcement problem. If we are dependent on daily monitoring and daily management of emissions both done by industry to meet the standards, how are we enforcing the law? This later has led to EPA rejection of one plan involving such intermittent control;<sup>26</sup> that rejection will almost certainly be litigated.

The flexibility of the air quality standard philosophy is fair. Because of the multiple ways air quality standards can be met, those administering it have some flexibility, and each local agency can choose the detailed regulations it considers best, within limits. Special cases and emergencies can be handled locally.

Its evolutionary ability is fair. As new data require it, standards can be changed; but that will then probably require complete new emission regulations, which will be expensive and time consuming. Improvements in control technology will increase the options open to those regulating emissions.

One clear difficulty with the air quality standards philosophy, which had led to court action in the USA concerns "non-degradation" or "non-deterioration." If it were absolutely true that there was no damage at all of any kind at concentrations below the "threshold values," then there could be no logical objections to polluting up to those concentrations. In effect the EPA guidelines to the states for developing their "State Im-

plementation Plans"<sup>28</sup> took this view. In contesting those regulations, a consortium of environmental groups showed that this was not apparently the intent of Congress nor even completely consistent with EPA's own regulations issuing the standards.<sup>29</sup> Aside from these purely legal questions, the logical bases for opposing this view are 1) that the setting of threshold values is bound to be based on limited data and that, therefore, one cannot be certain that we will not harm pure-air areas by polluting them up to the levels of the standards and 2) that visibility (the ability to see distant vistas) is inherently not a threshold value property but rather<sup>30</sup> is clearly a no-threshold property. Hence, if we were to pollute up to the standards, most of the scenic areas of the arid southwest and the Rocky Mountain states would experience a marked and significant deterioration of their traditionally high visibility and clear skies.

This controversy has been considered by the US Supreme Court once, with the conservation groups winning (on a tie vote) and has been the subject of several sets of proposed and final EPA regulations.<sup>31</sup> It seems certain to be the subject of future litigation. It clearly reveals the most basic difficulty with the air quality standards or zero-damage philosophy; namely, that this philosophy is totally and completely dependent on the assumption that there are threshold values below which there is zero damage. For visibility this assumption is demonstrably false. Thus the strongest intellectual basis for the non-deterioration or non-degradation doctrine is this attack on the false premise in the air quality standard philosophy. However, as more and more data accumulate on air pollution effects on humans, it becomes harder and harder to believe that the threshold value idea truly applies to human populations.<sup>32</sup> If it becomes clear that it does not apply, then it will be equally clear that the ambient air quality standard or zero-damaged philosophy is without intellectual foundation. If that is the case, we will still be able to use ambient air quality standards if we wish; but we will have to choose the values on some philosophical basis entirely different from that used to date. As an example of the setting of an ambient air quality standard at some value other than the "zero damage" value, an ambient air quality standard for asbestos has been proposed<sup>33</sup> whose proponents indicate that this standard would correspond to a mortality rate of 150 lives/year nationally due to ambient asbestos exposure. If one decides to permit a finite amount of human health damage, he must then decide how much. The cited article does not discuss how it was decided that 150 deaths/year was the desirable level. Clearly that is not arrived at by a "zero damage" assumption.

#### EMISSION-TAX PHILOSOPHY

The two previously discussed philosophies are in current active use in the USA. We know a great deal about them, their advantages, and their drawbacks. The two philosophies discussed next are not to any significant extent in use anywhere in the world but rather are ideas which have had theoretical discussion in academic journals. They represent possible future alternatives.

An emission-tax philosophy would tax each emitter of major pollutants according to some published scale related to its emission rate; e.g., x¢ per pound of a pollutant for all emitters. This tax rate would be set so that most major polluters would find it economical to install pollution control equipment rather than pay the taxes. In its "pure form" there would be no legal nor moral sanction against an emitter who elected to pay the tax and not control his emissions at all. Because regulated public utilities could probably pass such taxes on to con-

sumers, the tax would have to be set high enough that it would cost them less to control than to emit, and hence public utility commissions would base the allowable rates on the lower cost of control rather than on the higher cost of paying the tax. In the pure form, it is clearly quite a different philosophy from the air quality standard or emission standard philosophy.

Emission taxes have also been proposed in combination with the air quality management philosophy; in this combination, emission taxes would act as an added incentive to reduce emissions to lower levels than those required to meet air quality standards.<sup>34</sup> In this case the two philosophies would work in parallel. An alternative form would have the tax rate steadily increased until some predetermined ambient air quality was reached. In this version emission taxes are not an independent philosophy but a tactic being used to implement air quality standard philosophy.

Emission taxes can be considered as one member of a larger class of philosophies called "economic incentives." The other members of this class are tax rebates and public loans for the installation of air pollution control equipment and direct public subsidies for pollution control. These latter seem in most cases not to have been proposed as separate and complete philosophies (i.e., they have no "pure form") but rather have mostly been proposed and applied as ways of disturbing the costs of implementing air quality standard or emission standard philosophies.

The emission-tax philosophy assumes that the environment has natural removal mechanisms for pollutants (with chloro-fluorocarbons as a possible exception<sup>35</sup>) and that hence any particular contaminant level, the environment has a finite absorptive or dispersive capability. If this is so and that capability is seen as public property, then it should logically be rented to private users to return maximum benefits to the public treasury, and it should not be overutilized; the analogy with publicly-owned forest or grazing land seems obvious. For this reason one might think of the emission-tax philosophy as a "market allocation of public resources" philosophy, as compared to the "cleanest possible air" and "zero damage" bases of the two previous philosophies.

If we (the government) take that view and apply the "pure form" of emission taxes, then we accomplish two desirable results. First, we make the level of pollution control by the individual firm an internal economic decision. In either of the two previously discussed philosophies if the individual firm can persuade (or litigate) the control authorities into a less restrictive regulation, that firm saves money and possibly gains an advantage over its competitors who are not able to do so. If we use the emission-tax philosophy, each firm must make the individual decision as to which level of control efficiency will minimize its sum of control costs and emission taxes. This sort of minimization is something American industry is demonstrably good at.

The second desirable result is that the emission-tax philosophy should minimize the misallocation of pollution-control resources. If we use it, small emitters will presumably find it economical to pay the taxes rather than put economically-wasteful control devices on their plants. Large emitters, on the other hand, will find the taxes on their emissions prohibitive and install very high-quality control equipment. Overall, this should allocate resources well.

Many versions of emission taxes have been proposed and discussed, but none has reached the state of legislation. Comparison of this philosophy with the list of qualities must be based on impressions of how the legislation would work.

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The cost effectiveness should be fair because it would allow each emitter the choice of controlling emissions or paying the taxes (or controlling to some economic level and paying for the rest). Making the decision whether or not to control and the level of control desired a matter of the internal economics of major emitters would probably result in a better overall level of cost-effectiveness than is possible with uniform emission standards. However, if we enact a uniform national set of emission taxes, it may result in some remote plants installing control equipment at large cost to minimize taxes without much corresponding reduction in damages. This is the principal limitation on its cost effectiveness.

Most schemes proposed so far only envisage taxes on large sources. Such schemes are simple. For large sources, the tax rates and emission test methods comprise the whole of the regulations. If an attempt were made to extend the tax to all emitters (e.g., autos, household fireplaces, small industries), then the problem would become much more complex.<sup>28</sup> For sulfur oxides, for example, one could tax motor vehicle and home-heating fuels based on sulfur content at a rate comparable to the rate for sulfur emissions from large industrial sources. This would be simple. But no comparably simple scheme for particulate emissions from home-heating sources, autos, etc., is yet apparent.

If the tax schemes are limited to large sources, then enforceability should be excellent. The emission-testing industry would have to be expanded and certification of testers (like the current certification of weights and measures) instituted; but once a certified body of independent emission testers was available, their test values would be readily accepted as the basis for tax payments. Recording emission meters in exhaust stacks would also be most useful.

Flexibility to deal with the kinds of problems previously discussed would be unnecessary. Flexibility is needed in the other philosophies to deal with the problem of an emitter who cannot economically meet an area-wide standard or who cannot meet it by a statutory deadline. In an emission-tax system, he simply pays the tax.

The evolutionary ability should be good because the tax rate could be changed as the need arose. This would have to be done with some caution because industry has complained about their difficulties with changing standards. (They speak of the difficulty of "shooting at a moving target.")

However, raising tax rates for existing plants causes much less economic disruption than lowering an emission standard. In the case of the tax rate increase, the existing plant would probably elect to pay the higher tax, while for the lowered emission standard, it would probably have to replace its existing pollution-control equipment with more effective equipment.

Although the emission-tax philosophy is widely favored by economists in pure or mixed form and was once proposed in one of President Nixon's messages to Congress,<sup>24</sup> it has generally been anathema to American industry. One industrial group states,<sup>27</sup> "As a matter of principle, the right to pollute the environment should never be 'for sale.'" If we compare this view to the view of the holders of grazing rights on the public domain, we see that it is the same. Those who enjoy the free or subsidized use of the public domain are reluctant to pay the fair market price for that use.

An inherent difficulty with emission taxes as a pure philosophy is that there is no obvious answer to the question of how high the taxes should be. Generally it is suggested that we will raise the tax rates on a previously-announced schedule, continuing until the air is "clean enough," and then

hold the rates constant. How will we decide that the air is "clean enough"? If we decide on the basis of assumed threshold values, then emission taxes become merely a novel way (possibly a very good one) of implementing the air quality standard philosophy and not a pure philosophy at all. If, as discussed previously, the basic assumption of the air quality standards philosophy proves incorrect, then using it as a basis for determining "clean enough" in the emission tax philosophy has the same drawbacks as discussed previously.

We could opt not to consider air quality at all in deciding on our tax rates and use some purely economic criteria; e.g., maximum tax revenue or marginal cost of pollution control equal to some current "best technology" value. Such an approach would presumably ignore the question of air pollution damage to the public.

#### COST-BENEFIT PHILOSOPHY

The previous discussion has shown that only the ambient air quality standards philosophy gives any guidance on how clean the air should be and that this guidance is based on the assumption that there are true threshold values. If that proves false, then that philosophy gives no guidance. If the assumption turns out to be true, it may still turn out that the true thresholds are so low that the cost of maintaining "zero damage" air quality is more than we can bear.

The cost-benefit approach assumes that either there are no thresholds, or if there are, they are low enough that we cannot afford to have air that clean. If this is so, then it follows that we must accept some amount of air pollution damage to someone, somewhere. In this situation this philosophy suggests that we face this fact and attempt to decide, in as rational a manner as possible, how much damage we should accept and correspondingly how much we should be willing to spend to reduce damages to this level.

The idea is illustrated in its simplest form on Figure 3. This figure, which is only conceptual and does not represent any particular situation, shows that if we make zero air pollution control expenditures, we will have some large ambient concentration of pollutants. As we increase the control expenditure, the concentration of pollutants will fall with the costs going up very steeply as we approach zero concentration. The damage-cost curve is shown starting at some low value at a small or zero concentration and increasing rapidly at high concentrations. The sum of the two is shown to have a minimum value at some intermediate concentrations. This minimum is the optimum; expenditures above or below it are wasteful.

Figure 3 is but one example of the classic "minimization of the sum of two costs" problem which appears in economics and engineering texts. The minimum occurs when the slopes of the two cost curves are equal and opposite, or

Equation 3:

$$\frac{d(\text{pollution damage plus pollution control cost})}{d(\text{concentration of pollutant in the atmosphere})} = 0.$$

Figure 3 is a great simplification of reality because it shows one control cost curve, one damage curve, and one atmospheric concentration. In the real problem there is a damage curve for each individual exposed to air pollution, a control curve for each emitter (including autos, household space-heating plants, etc.), and a concentration dimension for each pollutant at each location. Thus instead of having a one-dimensional optimization, we have a multi-dimensional optimization with the number of dimensions being at least as large as the number of people in the world. One can in principle solve such multi-

dimensional optimization problems; the solution of this one—in principle—is

Equation 4:

$$\frac{d(\text{pollution control and damage cost for whole nation})}{d(\text{pollution control and damage cost for each individual})} = 0 \quad \text{all others constant}$$

Equation 4 indicates that at the true global optimum for each person and each pollutant, we are at a minimum of the form sketched in Figure 3. Although this is clearly the right place to be, getting there may be difficult, and Equation 4 should be considered as only a philosophical guide until we know much more about its detailed application.

This approach is frequently criticized by those who say, "You can't reduce . . . to monetary terms," where . . . may be human health, human life, or the quality of a clear sky, or air pollution damage to the cathedrals of Europe, or something else (e.g.,<sup>25</sup>).

"To press non-economic values into the framework of the economic calculus, economists use the method of cost/benefit analysis. This is generally thought to be an enlightened and progressive development, as it is at least an attempt to take account of costs and benefits which might otherwise be disregarded altogether. In fact, however, it is a procedure by which the higher is reduced to the level of the lower and the priceless is given a price. It can therefore never serve to clarify the situation and lead to an enlightened decision. All it can do is lead to self-deception or the deception of others; for to undertake to measure the immeasurable is absurd and constitutes but an elaborate method of moving from preconceived notions to foregone conclusions; all one has to do to obtain the desired results is to impute suitable values to the immeasurable costs and benefits. The logical absurdity, however, is not the greatest fault of the undertaking: what is worse, and destructive of civilization, is the pretence that everything has a price or, in other words, that money is the highest of all values."

It is hard to believe that a distinguished economist could write this, and clearly ignore what all economists teach: that money is an indicator of value, and not a value itself.

It is hard to assign monetary values to non-material things, but society obviously does. The value we place on health is indicated by how much we are individually willing to spend to safeguard or improve our own personal health and by how much society is willing to spend to improve community health. The value society places on human life is indicated by how much society will spend to prevent one accidental death. Juries set financial values on loss of life and health every day.<sup>26</sup>

The value we place on clear skies is indicated by how much people will give up to live in areas with such clear skies. Frequently, the person making this criticism disagrees with society's evaluation. I disagree with some of society's evaluations, but that is not ground for saying that society cannot and does not evaluate these things.

A paradox which continually puzzles me is that many well-educated people express such strong chagrin and distaste at the idea that society places dollar values on such things as human life, human health, the quality of the clear sky, etc. Frequently, the people who assert that setting such dollar value is immoral simultaneously reject as too expensive such life- and health-saving measures as mandatory seat belts, mandatory safety measures in auto construction, more comprehensive and thorough drug testing, safer highway design, improved public health facilities, improved occupational health standards, etc. In so doing they show

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that, at least subconsciously, they have placed dollar values on human health and human life. It appears that setting such dollar values is for our society like sex was for the Victorians; everyone does it, everyone knows that we all do it, but it is considered awful and disgusting to talk about it in public or admit that one does it.

Comparing the cost-benefit philosophy with the list of desirable properties, we see that its cost effectiveness is excellent. Since the whole idea of this philosophy is to solve the cost-benefit minimization problem, if it is done properly, it must have the best possible cost effectiveness.

Its simplicity should be terrible. Given the problem of solving Equation 4 with as many variables as there are people and enacting regulations to enforce that, one can see the magnitude of the problem. Clearly, some simplified version of the solution to Equation 4 must be used. Even so, the complexity should be fearsome.

Because of this complexity, it seems very unlikely that we will even have air pollution regulations based directly on cost-benefit analysis or on the direct application of Equation 4; i.e., a "pure" cost-benefit philosophy. More likely, greatly simplified approaches will be used. Two probable approaches are the use of cost-benefit analysis to set emission standards or to set air quality standards. Most likely this has been going on, informally, for many years. Most applications of the emission standard philosophy have included some wording in the laws suggesting that the standards be set . . . "taking into account the cost . . ." or analogous words about "reasonableness" or "practicality." In deciding what is reasonable or practical, those writing the regulations have consciously or unconsciously attempted to decide what the benefits of a given control measure would be and balanced these benefits against the cost. I know of no conscious example where this has been done with air quality standards; but when and if it becomes clear that one or more of the major air pollutants is a no-threshold pollutant, this will probably be the way used to decide what the air quality standard will be.

Because Table I is written for "pure" philosophies, I have listed "unknown" for the enforceability and flexibility of the cost-benefit philosophy. No one has, to my knowledge, published any clear idea of how a set of regulations based on "pure" cost benefit analysis would be written. Hence this uncertainty. One may estimate that the evolutionary ability would be good. As we discover new air pollution damage data or new control technology, we can introduce these into our cost-benefit equation and modify the regulations to take this into account.

If, as stated above, this philosophy will most likely be used, not as a "pure" philosophy, but as a guide for setting emission or air quality standards (and this has been going on, informally, for a long time), why list this as a philosophy at all? The major purpose of this paper is to elucidate the true philosophical bases on which we are currently acting. If, as I suggest, we have been applying this philosophy in an informal, non-public way while using emission standards and air quality standards as our public philosophies, then I believe we ought to admit it. If we really are using emission standards and/or air quality standards not as basic philosophies but as enforcement tools for an overall cost-benefit strategy, then we ought to devote the thought and effort necessary to putting our cost-benefit decisions on as sound a basis as possible. To do so will require public exposure of the assumptions and value judgments which are needed to do cost-benefit calculations involving human health damage, aesthetic damage, etc.<sup>40</sup> I predict that exposing such value judgments will be painful and con-

troversial, but the alternative is to continue making air pollution control decisions in ways where the true bases are hidden from public view and public debate.

#### CONCLUSIONS

From 1863 to 1965 air pollution control efforts were largely based on the emission-standards or "cleanest possible air" philosophy. From 1965 to the present, the air quality standards or "zero damage" philosophy has found increasing application and become the dominant philosophy in US air pollution law. The emission tax or "market allocation of public resources" philosophy has been proposed and discussed as an alternative to these two philosophies.

Air quality standards answers the question, "How clean should the air be?" but bases the answer on an unproven assumption. The other two philosophies do not answer it at all. If the basic assumption of the air quality standards philosophy proves false, then none of these philosophies will answer that question.

Informally, or unconsciously, pollution control agencies have answered the question by some kind of estimates of costs and benefits. In the future, the author suggests that this kind of analysis should be removed from the guesswork and "engineering judgment" of pollution control officers and become a formal, publicly debated part of our air pollution regulation-setting procedure.

#### FOOTNOTES

<sup>1</sup> Halliday, E. C. "A Historical Review of Atmospheric Pollution, in *Air Pollution*, World Health Organization Monograph Series No. 46, Geneva (1961).

<sup>2</sup> Nonhebel, G. "Best Practicable Means and Presumptive Limits: British Definitions," *Atmos. Environ.*, 9, p. 709 (1975).

<sup>3</sup> Rules and Regulations, Air Pollution Control District, County of Los Angeles, 434 South San Pedro Street, Los Angeles, CA 90013 (1971).

<sup>4</sup> Burdick, L. R. "Ringleman Smoke Chart," *U.S. Bur. Mines Inform. Circ. 7718* (1955) (A revision of 6888 by R. Kudlich).

<sup>5</sup> "Standards of Performance for New Stationary Sources," *Federal Register*, 36, EPA, 24876 (December, 1971).

<sup>6</sup> "Application for Suspension of 1977 Motor Vehicle Exhaust Emission Standards," Decision of the EPA Administrator (March 5, 1975).

<sup>7</sup> "The Clean Air Act," 42 U.S.C. 1857 et. seq., EPA, Washington, D.C., Section 111 (December, 1970).

<sup>8</sup> *Op. cit.*, Section 112.

<sup>9</sup> "Background Information—Proposed Emission Standards for Hazardous Air Pollutants—Asbestos, Beryllium, Mercury," EPA Publication APTD-0753 (December, 1971).

<sup>10</sup> "The Clean Air Act," 42 U.S.C. 1857 et. seq., EPA, Washington, D.C., Section 202 (December, 1970).

<sup>11</sup> Bonine, J. E. "The Evolution of 'Technology Forcing' in the Clean Air Act," *Environmental Reporter*, 6, Monograph No. 21 (July 25, 1975).

<sup>12</sup> Mann, T., "Statement on Behalf of Automobile Manufacturers Association," *Air Pollution—1967 (Automotive Air Pollution)*, hearings before the Subcommittee on Public Works, United States Senate Ninetieth Congress, U.S. Government Printing Office, Washington, D.C., Part I, page 395 (1967).

<sup>13</sup> Iacocca, L. A., *Testimony at Hearings Before the Subcommittee on Air and Water Pollution of the Committee on Public Works, United States Senate*, U.S. Government Printing Office, Washington, D.C., No. 5270-01940, p. 1103 (1973).

<sup>14</sup> Oglesby, Sabert, Jr., and G. B. Nichols, "A Manual of Electrostatic Precipitator Technology," Southern Research Institute (prepared for and distributed by EPA), p. 203 (August, 1970).

<sup>15</sup> A "typical coal" has 10% ash and a heat-

ing value of 12,000 BTU/lb. If 99.95% of the ash is collected, the ash emission would be  $(0.1)(0.005)/(12,000 \text{ Btu/lb}) = 0.004 \text{ lb}/10^6 \text{ Btu}$ . "Compilation of Air Pollutant Emission Factors," EPA Document AP-42 (1972 ed.), pp. 1-7, shows that domestic (i.e., residential) oil combustion emits, on the average, 10 lb of particulates/ $10^6$  gal. Such oils typically have  $1.4 \times 10^5$  Btu/gal, so the emission rate is  $10 \text{ lb}/(10^5 \times 1.4 \times 10^5) = 0.071 \text{ lb}/10^6 \text{ Btu}$ .

<sup>16</sup> National Emission Standards Study, Report of the Secretary of HEW to the Congress in Compliance with the Clean Air Act of 1967, U.S. Government Printing Office, Washington, D.C., p. 106 (April, 1970). See also J. E. Bonine, letter in *J. APCA* 25, 1099 (November, 1975).

<sup>17</sup> de Nevers, N., "Enforcing the Clean Air Act of 1970," *Sci. Am.*, 228, (6), pp. 14-21 (1973).

<sup>18</sup> Anonymous, "A Utility Defends a Scrubbing Plant," *Business Week*, 2346, p. 80 (August, 1971).

<sup>19</sup> Goldstein, Avram, L. Aronow, and S. M. Kalman, *Principles of Drug Action*, Second Edition, Wiley, N.Y., p. 89 (1974).

<sup>20</sup> American Conference of Governmental Industrial Hygienists, quoted in Sax, N. I., *Dangerous Properties of Industrial Materials*, Reinhold, New York, p. 3 (1968).

<sup>21</sup> Stokinger, H. E., "Concepts of Thresholds in Standard Setting," *Arch. Env. Health*, 25, pp. 153-157 (September, 1972).

<sup>22</sup> The Clean Air Act of 1970, Sec. 109(b)-1.

<sup>23</sup> EPA, "National Primary and Secondary Ambient Air Quality Standards," 36 FR 22384, Sec. 50.2(c), (April, 1971).

<sup>24</sup> EPA, "Requirements for Preparation, Adoption, and Submittal of Implementation Plans," *Federal Register*, 36, p. 8186 (April, 1971).

<sup>25</sup> Turner, D. B., "Workbook of Atmospheric Dispersion Estimates," EPA Publication No. AP-26 (1970).

<sup>26</sup> Sklarew, R. C., A. J. Fabrick, and J. E. Praeger, "Mathematical Modelling of Photochemical Smog Using the PICK Method," *JAPCA*, 22, pp. 865-869 (1972).

<sup>27</sup> "Health Consequences of Increasing Sulfur Oxides Emissions," Draft Document, National Environmental Research Center, EPA, Research Triangle Park, N.C. (August, 1974).

<sup>28</sup> "Utah—Approval and Promulgation of Implementation Plans: Revision," *Federal Register*, 40, EPA, 43231 (September, 1975).

<sup>29</sup> The air quality standards document, (Reference 20 above) says (Sec. 410.2(c)): "The promulgation of national primary and secondary ambient air quality standard shall not be considered in any manner to allow significant deterioration of existing air quality in any portion of any state." Furthermore, the Clean Air Act (Reference 6 above) says (Sec. 101b(1)): "The purposes of this title are (1) to protect and enhance the quality of the Nation's air resources. . . ." These two quotations plus the legislative history of the act formed the basis for the conservation group's suit against allowing the air to be polluted up to the level of the standards.

<sup>30</sup> "Air Quality Criteria for Particulate Matter," U.S. Dept. of HEW, Document AP-49, p. 60 (1969).

<sup>31</sup> "Proposed Rulemaking—Prevention of Significant Air Quality Deterioration," *Federal Register*, 38, No. 135, p. 18968 (1973) and *Federal Register*, 39, p. 3100, (August, 1974), and *Federal Register*, 39, p. 42510 (December, 1974).

<sup>32</sup> Knelson, J. H., "Developing Health Standards from Epidemiological and Clinical Data," presented at the 3rd Life Sciences Symposium, Los Alamos, New Mexico (October, 1975).

<sup>33</sup> Bruckman, L., and R. A. Rubino, "Asbestos: rational behind a proposed air quality standards," *JAPCA*, 25, pp. 1207-1215

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<sup>14</sup> Nixon, R. M., "The President's 1972 Environmental Program," *Weekly Compilation of Presidential Documents*, 8, (7), p. 220 (1972).

<sup>15</sup> Rowland, F. S., and M. J. Molina, "Chlorofluoromethanes in the Environment," *Rev. of Geophys. and Space Phys.*, 13, pp. 1-35 (1975).

<sup>16</sup> Lees, L., et al., *Smog—a Report to the People*, EQL Report No. 4, Environmental Quality Laboratory California Institute of Technology, Section II/5 (January, 1972).

<sup>17</sup> Anon., "Council Report, National Industrial Pollution Control Council," U.S. Dept. of Commerce, p. 13 (February, 1971).

<sup>18</sup> Schumacher, E. F. *Small is Beautiful: Economics as if People Mattered*, Harper and Row, N.Y. (1972).

<sup>19</sup> "Air Quality and Automobile Emission Control," Volume 4, "The Costs and Benefits of Automobile Emission Control," A report by the Coordinating Committee on Air Quality Studies, National Academy of Sciences, National Academy of Engineering, Prepared for the Committee on Public Works, U.S. Senate, Serial 93-24, p. 258 et seq., (September, 1974).

<sup>20</sup> de Nevers, Noel, "The Application of Cost-Benefit Analysis to Air Pollution Control Regulation. A General Discussion with Application to the Example of Sulfur-oxide Control at the Huntington and Emery Power Plants," Submitted by the Utah Power and Light Company to the Utah Air Conservation Committee (January, 1975). Copies available from Utah Power and Light Company, P.O. Box 899, Salt Lake City, Utah.

TABLE I.—COMPARISON OF STRATEGIES

	Emission standard	Air quality management	Emission taxes	Cost-benefit analysis
Cost effectiveness.	Very bad.	Good.	Fair.	Excellent.
Simplicity.	Excellent.	Poor.	Excellent.	Terrible.
Enforceability.	do.	do.	Fair.	do.
Flexibility.	Poor.	do.	Unnecessary.	Do.
Evolutionary ability.	Fair.	do.	Good.	Good.

Mr. BAKER. Mr. President, an article appeared in the February 16, 1977, edition of the Knoxville News Sentinel by Mr. William R. Burleigh, editor of the Evansville Press, regarding the relationship between our current shortage of natural gas and Federal regulation of interstate gas prices. I share Mr. Burleigh's analysis and his view that free market forces will, in the long run, resolve our supply problems more efficiently than will Government regulation. I would like to share Mr. Burleigh's remarks with my colleagues in the Senate, and I ask unanimous consent that his article be printed in the RECORD.

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

BUNGLING BIG BROTHER CAN'T KEEP US WARM  
(By William R. Burleigh)

A friend with rare insight was commenting the other day that politicians, like newspaper editors, just can't believe that there's any problem without a solution. At least in the politicians' case, it's usually a solution calling for the healing powers of government to be spread on thick.

My friend's wisdom goes to the heart of the energy crisis.

Evidence mounts to support the belief that we have a natural gas shortage today mainly because Government a quarter of a century

ago began to stifle natural economic forces. And over the years, the more the Government meddlers have intruded, the more serious the problem has grown. Not only that, the more painful becomes the ultimate day of reckoning.

In 1954 the Supreme Court gave the Federal Power Commission authority to regulate the price of natural gas destined for interstate use. Bitter hindsight tell us now that the FPC has kept those prices artificially low, entangled the gas producers in unbelievable amounts of red tape and completely frustrated the machinery that normally takes care of the supply and demand of basic goods in a free-market economy.

Meanwhile, the gas producers, prevented from selling their product for prices they knew it was worth, did what any sane entrepreneurs would do. They grew reluctant to gamble their money on finding new supplies. Instead they looked around for places to sell what was available at prices that weren't artificially held in check by Government.

This perfectly natural reaction made them evil robber barons in many eyes. Government was depicted as the good guy, keeping prices at affordable levels. Business was the bad guy because it just happened to be responding to the profit motive.

Locked into this false stereotype, we have been face to face with real anguish—a record winter, not enough gas, factory layoffs, desperate cries for conservation from the same politicians who preach the religion of price controls. And all of this in a country made great and powerful by a system of free enterprise.

So why don't we bite the bullet and vote for the deregulation of natural gas prices that would, eventually at least, be pretty certain to restore our supplies? The great preponderance of informed opinion now agrees that's the way to go. It will cost each of us more money and it will take time. It will be no panacea, for this country can't go on for many more decades relying on natural gas, even if all reserves are drilled. But it should without question get us out of the current pinch.

So why won't our political leaders do it? Why won't we have faith in the basic economic system that time after time has proved its superiority to anything else we have devised? Why is there such a reluctance to trust those natural forces over the man-made force of bungling Government?

Big Brother has proved he can't keep us warm. Isn't it time to give somebody else a chance?

#### WARNKE NOMINATION

Mr. PERCY. Mr. President, the controversy over Mr. Warnke's nomination to head the Arms Control and Disarmament Agency and to be chief negotiator for SALT is based on ideology rather than competence. There has been no question of his competence as a manager. Moreover, his testimony before the Foreign Relations Committee reveals him to be knowledgeable, articulate, and persuasive.

From my review of Mr. Warnke's extensive writings, prior testimony, and his confirmation testimony, it is clear that there has been some modification in his views. I do not, as some seem to, ascribe these modifications to a sinister and deliberate attempt to win confirmation. I believe him to be sincere when he states he would not negotiate away any U.S. advantage. I believe he has a firm commitment to maintain the U.S. deterrent. His testimony before the Foreign Relations Committee is available

to anyone who cares to read it. In it are strong words in support of negotiations, careful attention to the need for a strong defense posture, and commitment to consult with this body.

I did not make up my mind until I had consulted qualified people for and against the nomination. I asked Paul Nitze to testify before the committee and state his reasons for opposing the nomination. I consulted two former Directors of ACDA, Bill Foster and Gerald Smith, who gave their enthusiastic endorsement of Mr. Warnke; these two able men know from first-hand experience what Mr. Warnke will face during arms control negotiations, and they feel he is the right man for the job.

I have carefully and thoughtfully weighed all points of view. I have reread Mr. Warnke's articles and reviewed his testimony. A former Assistant Secretary of Defense, he knows this field. His record as an administrator is a good one. He will, I am convinced, bring total dedication to his new assignments. I am therefore, supporting Mr. Warnke to be both Director of the Arms Control and Disarmament Agency and our chief SALT negotiator.

The hearings just concluded illustrate the strength of the confirmation process. We have put Mr. Warnke through grueling and possibly uncomfortable hearings. He has been examined and cross-examined, and he has heard dedicated men such as Representative STRATTON, Senator McCLURE, and Paul Nitze express deep reservations about his nomination. In the process we have subjected our arms control policy to thorough debate. When Mr. Warnke conducts business in the name of the United States, he will be mindful of this process and the whole spectrum of views which has been expressed. He will remember the words of good and able men who had grave doubts about his views, as well as those who spoke in his support.

I believe that this experience will serve Mr. Warnke well in his new job when—with both hats on—he encounters the bureaucratic infighters, the political counterpunchers, the diplomatic double-talkers, the stolid Muscovites, the hardliners, the softliners, and the one liners. Let us confirm him and remember him in our prayers.

#### OPPOSITION TO NOMINATION OF PAUL C. WARNKE AS SALT NEGOTIATOR

Mr. THURMOND. Mr. President, the 2 days of testimony by nominee Paul Warnke did nothing to allay my fears relative to his effectiveness as our negotiator with the Soviets for strategic arms.

The hearings validated that Mr. Warnke over the past 8 years has consistently opposed the major portion of the key programs approved by the President and Congress.

Of equal concern is his opposition as well to even research and development in such vital strategic weapons as the B-1, Trident submarines, the mobile MX, multiple independently retargetable

warheads, the airborne warning and control system, et cetera.

It is simply incomprehensible to me as to why a man with this background would be named to negotiate with the Soviets when he has opposed more U.S. weapon systems than even the Soviets have suggested we abandon.

Also, I am deeply troubled by the fact—proven by lengthy questioning—that Warnke has changed his position on some weapon systems to coincide with his nomination. He has clearly altered his position in some instances, although he refuses to admit that change.

For example, he claims he has supported research in areas essential to our overall defense strength while the record simply does not support that position.

Mr. President, a number of articles on this subject have appeared in the press recently. I request unanimous consent at this time to have printed in the RECORD following my remarks the below-listed items:

1. The Washington Post, February 10, 1977, "Warnke: 'Aping' Through Unilateral Abandonment"—Will.

2. Detroit News, February 10, 1977, "Who is Paul Warnke?"—Heinl.

3. Christian Science Monitor, February 17, 1977, "Dove and Hawk Ruffle Their Feathers"—Sutherland.

4. The Washington Post, February 22, 1977, "Why Paul Warnke Should Not Be Confirmed As Director of the Arms Control and Disarmament Agency and Chief Negotiator for the Strategic Arms Limitations Treaties . . . An Open Letter To The United States Senate."—Graham.

5. The News and Courier, February 24, 1977, "Mr. Warnke and SALT."

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

[From the Washington Post, Feb. 10, 1977]

**WARNKE: "APING" THROUGH UNILATERAL ABANDONMENT**

(By George F. Will)

Paul Warnke is an open book. Indeed Warnke, President Carter's nominee to head the arms control agency and strategic arms negotiating team, is an open book who has been reading himself to the nation for years.

In writings, lectures, debates and congressional testimony, he has tirelessly advocated distinctive ideas, such as a program of defense cuts that would have produced a defense budget for fiscal 1978 about \$25 billion less than what Carter considers necessary.

Regarding strategic arms, Warnke believes the United States and Soviet Union are comparably "mindless"—two "apes on a treadmill." Such primitive beasts like apes have no intentions, properly speaking, only reflexes. So one cannot infer alarming intentions from the Soviet rush to strategic superiority.

Warnke thinks the principal impediment to arms control is "superpower aping," each nation reflexively responding to the other. Because the United States is the only "superpower model" the Soviet Union has to follow, Warnke says, it is probable that unilateral U.S. restraint would inspire Soviet reciprocity.

Warnke's view of the world is almost engagingly childlike, but it does not explain why the Soviet Union has not "aped" the restraint already shown by this country.

The United States delayed deploying antiballistic missiles in the hope that this would produce reciprocal restraint in Moscow. It did not. In 1967, we had 1,054 land-based ICBM launchers, the Soviet Union had fewer

Today, we have 1,054, the Soviet Union has approximately 1,600.

In 1967, the United States had 656 submarine launchers, the Soviet Union had fewer. Today, the United States has 656, the Soviet Union has more than 800.

Between 1960 and 1976, U.S. strategic arms spending (in real dollars) declined an average of eight per cent a year; total defense spending has been declining as a percentage of Gross National Product and government outlays. Soviet spending has been increasing and now is twice as large a portion of Soviet GNP as U.S. defense spending is of our GNP.

In 1965, when Defense Secretary Robert McNamara included Warnke among his advisers, McNamara announced: "The Soviets have decided that they have lost the quantitative race, and they are not seeking to engage us in that contest." Now they have emerged quantitatively superior, but Warnke has unshaken—and, it seems, unshakable—faith that unilateral U.S. abandonment of some strategic programs will evoke Soviet restraint.

So he has opposed Trident submarines, B-1 bombers, cruise missiles, improved missile accuracy, more multiple independently targeted re-entry vehicles (MIRVs)—in short, most of what arms negotiations are about. He wants the United States to undertake "unilateral initiatives"—curtailments—more drastic than the Soviet Union has yet had the audacity to demand.

Under Henry Kissinger, U.S. "negotiators" conducted a losing monologue with themselves. The Soviet side could be relatively silent while our side persuaded itself to make the next concession.

Under Warnke's approach, U.S. "negotiators" would sit silently, waiting for U.S. "unilateral initiatives" to inspire the Soviet Union to "ape" the restraint of its U.S. "model." But if reciprocity did not result, Warnke would not be much alarmed, because he thinks that "even substantial nuclear superiority, short of nuclear monopoly, could not be a decisive factor in any political confrontation between the U.S. and the Soviet Union."

Warnke's policy—meeting increased Soviet strategic efforts with increasingly risky U.S. restraint—is foolproof. If it works (provokes reciprocal Soviet restraint), it works; if it doesn't work, it doesn't much matter because "substantial superiority" doesn't much matter. But in any case, why call "unilateral initiatives" a "negotiating" policy?

If, before the election, Carter had embraced the policies embraced by Warnke, Carter would not be in a position to nominate Warnke. What Carter promised (in the crucial second debate) was "a defense capability second to none." On the record, Warnke believes that promise is irrational because it is wasteful, and immoral because it is provocative. What the electorate thinks of Warnke's national security policies was made abundantly clear in 1972, when he was national security adviser to George McGovern, who had favored a \$32 billion defense cut.

Until recently, strategic superiority did not need to be a stated national goal; it was a fact. The Nixon-Ford-Kissinger policy was that the meaning of superiority is unclear, but "essential equivalence" is, well, essential. Now comes Warnke, just the man for the next stage of national decline, wherein the Soviet Union will enjoy substantial nuclear superiority.

[From the Detroit News, Feb. 10, 1977]

**WHO IS PAUL WARNKE?**

(By Col. R. D. Heinl, Jr., USMC, Retired)

WASHINGTON.—The intellectual measure of Paul Warnke, who President Carter has designated as our chief arms-control executive, can be taken from his assertion that "No sane president would go to war to gain political objectives."

Evidently Warnke has never read Karl von Clausewitz. In his magisterial treatise on war and statecraft, the great 19th century Prussian strategist points out, in sharp contrast to Warnke, that all wars are rooted in politics and political objectives, and that war is a political process.

Emphasizing is one of his most famous dicta that war is necessarily "a political act," Clausewitz defined war as "a political instrument, a continuation of political relations by other means."

Thus, if we are to take Warnke at his word—and he is an eminent lawyer and professes to be a serious man—he is signalling Russia the United States renounces war as an ultimate response no matter how far the Kremlin pushes.

This may seem like a good idea to Warnke (and is certainly consistent with his past record as an advocate of unilateral disarmament), but it is very good news indeed for Leonid Brezhnev.

Unfortunately, this is not the only good news of this kind of Kremlin has been receiving from the Carter administration in a succession of signals which, to give them their most charitable gloss, suggest heedlessness and inexperience, or, more ominously, that the President and his dovish national security advisers really do mean to roll over before Russia and play dead.

Andrew Young, our new ambassador to the United Nations, has justified the presence of the Soviets' Cuban foreign legion in Angola as "a stabilizing factor" and says they are there "by invitation."

Vice-President Walter Mondale affirming Mr. Carter's campaign promises, announced in Japan that we are going to withdraw our ground forces from Korea.

But the most disastrous signals toward the Kremlin have been coming from Mr. Carter himself, who only a month ago all but blessed Russia's mighty armaments surge by asserting—on what evidence is far from clear—that the United States is "by far stronger" than Russia.

Item: Mr. Carter has set himself a negotiating deadline for achieving a SALT agreement. Self-imposed deadlines habitually give the Russians a classic opening to raise the price of agreement.

Item: Apparently prepared to throw in our most effective new strategic weapons system for the sake of some agreement, President Carter has said on record he would not let cruise missiles "stand in the way" of SALT II.

Item: Unmindful of Russia's repeated exploitation of previous summit meetings, Mr. Carter has already begun to talk about a future summit with Mr. Brezhnev.

What all this amounts to, whether it is intended or not, is that President Carter and his new administration are simply setting themselves up as a mark for the Kremlin.

That, as Talleyrand, who knew the Russians well, would have pointed out, is worse than a crime: It is a blunder.

[From the Christian Science Monitor, Feb. 17, 1977]

**"DOVE" AND "HAWK" RUFFLE THEIR FEATHERS—GREAT DEBATE ON U.S. ARMS CONTROL LED BY TWO MEN WITH STRONG VIEWS**

(By Daniel Sutherland)

WASHINGTON.—Two men have come to symbolize starkly different approaches to negotiating an arms-control agreement with the Russians.

In the crude shorthand of Washington politics, Paul C. Warnke and Paul H. Nitze have been labeled "dove" and "hawk," respectively.

The intense feeling these two figures inspire in their opponents can be seen in the immoderate language sometimes used to describe them. To liberals, Mr. Nitze is the very

incarnation of the "superhawk." To conservatives, Mr. Warnke is, as one of them who is a defense specialist put it, "cavaller" in his approach to important questions of national security.

But in many ways, the two men are similar. Mr. Warnke, President Carter's nominee as the United States' chief arms-control negotiator, and Mr. Nitze, former arms negotiator, secretary of the Navy, deputy secretary of defense, and perhaps the leading critic of Mr. Warnke, are intelligent, urbane, articulate—and even eloquent—advocates of their points of view.

Both come from privileged backgrounds: For Mr. Warnke, it has been Yale University, Columbia Law School, and partnership in a leading Washington law firm. For Mr. Nitze, Harvard University, membership on the boards of directors of leading companies, and chairmanship of the advisory council of the Johns Hopkins School of Advanced International Studies in Washington.

Both have held top Defense Department jobs, Mr. Warnke at one point working under Mr. Nitze. Both are widely respected for their clarity of thought, use of the English language, and ability to remain cool under pressure. And both are Democrats who served as foreign-policy advisers to President Carter in the pre-election period.

Mr. Nitze and Mr. Warnke have offices high above the nation's capital city, with Mr. Warnke's law office looking down on the Tidal Basin, the Jefferson Memorial, and the Potomac River. Mr. Nitze, as a consultant to the System Planning Corporation, appropriately views it all from the Pentagon side of the river, in northern Virginia. Both men command spectacular views.

But there the resemblances seem to end.

Based on what the two have said and written over the past few years, they could hardly view the future more differently.

A reporter who is expert in the national security field summed it up by describing Mr. Nitze as "a Paul Warnke who got religion through negotiating with the Russians."

[From the Christian Science Monitor, Feb. 17, 1977]

#### PAUL WARNKE: LEANS TOWARD ACCOMMODATION TO BRING A-CURE

WASHINGTON.—When Paul Warnke testified recently before the Senate Foreign Relations Committee, his critics, in the words of one of his supporters, "didn't lay a glove on him."

As President Carter's nominee for the important positions of chief arms-control negotiator and director of the Arms Control and Disarmament Agency, Mr. Warnke displayed in his testimony a characteristic charm and verbal agility. But the fact that he heavily qualified a number of his past positions on arms control left some of his opponents doubting as much as they ever had his suitability for the sensitive posts.

#### ACCOMMODATION CLUE?

Because of the positions on arms control which he has taken over the years, Mr. Warnke has become a symbol to the conservatives of those in the national-security field who are likely to be "soft on the Russians." His appointment confirmed, in the view of his critics, that President Carter is moving toward accommodation with the Russians without adequately guarding against what they consider to be a Soviet drive toward strategic superiority.

As if anticipating the criticism from his Senate opponents, Mr. Warnke started out his testimony by stressing that he had no preconceived ideas on arms control and came to it with an open mind. He could not be tied to everything he said in the past. He

would be acting as part of a team under guidance from the President and not as an individual.

#### 1975 ARTICLE CITED

What rankles Mr. Warnke's critics most is his past advocacy of cuts in defense spending and restraints in the development of certain weapons systems, as well as his statements to the effect that superiority in nuclear weapons became meaningless once the United States and the Soviet Union developed the power to destroy each other.

The critics frequently cite an article written by Mr. Warnke in a 1975 issue of the magazine *Foreign Policy* in which he called for a process of "matching restraint" in the arms race, with the initiative to be taken by the United States. In that article, Mr. Warnke attacked what he called an American "pre-occupation" with military power as a political tool, called for an end to the notion that the United States can be the world's "policeman," and criticized as a "fallacy that inflates defense spending" the proposition that the U.S. "must remain ahead of the Soviet Union in most if not all perceivable elements of military power."

#### RESTRAINT PERIOD PROPOSED

In the same article, entitled "Apes on a Treadmill," Mr. Warnke advocated a six-month period of restraint in the development of several weapons systems, to be followed by a review of actions the Soviet Union might take during the same period.

In his Senate testimony, Mr. Warnke backed off from that proposal, saying that he would not advocate such restraint "in a negotiating context," but would make a freeze on weapons development part of a whole negotiating package. He did stick by his previous position that it is not necessary for the U.S. to remain No. 1 across the whole spectrum of strategic and conventional forces. And while he saw a need to examine the usefulness of mobile missiles, he saw no need to go ahead at this time with their development. Mobile-missile development is something a number of more conservative experts see as part of the answer to the Soviets' growing nuclear arsenal.

Despite all the hedging he did in his testimony, Mr. Warnke's defenders expect him to inject new ideas and a new flexibility into the U.S. negotiating position. Many of Mr. Warnke's supporters refer to themselves as "arms controllers"—people who want to see the stress placed on arms control, rather than on extending the arms race. Some of them would be willing to risk limited, unilateral restraints in the hope of inducing the Soviet Union to follow the U.S. example.

#### A MATTER OF SIGNALS

The critics say, on the other hand, that what counts with the Russians is strength. To appoint Mr. Warnke, they say, would be to send the Soviets "the wrong signal."

By attempting to muster Senate votes against Mr. Warnke's confirmation, the critics hope to send the Russians a signal of their own. Any new strategic arms limitation agreement (SALT) would require a two-thirds vote in the Senate. While Mr. Warnke's nomination is not likely to be defeated, a strong vote against him might indicate rough going for any future arms agreement. It might also serve as a warning to President Carter that his domestic opponents in the arms-control field expect to fight for a tough U.S. bargaining position when the arms-control talks with the Russians resume.

According to the conservative weekly *Human Events*, Mr. Warnke's opponents intend "wounding him severely enough that he will be unable to surrender our major weaponry at the SALT II negotiations, which are expected to begin sometime this year.—D. S.

[From the Christian Science Monitor, Feb. 17, 1977]

#### PAUL NITZE: ATTACKS NOMINEE AS A RISK TO U.S. POWER

WASHINGTON.—Sitting in his black, high-backed swivel chair and looking out from his penthouse office across the Potomac River, Paul Nitze was fighting mad.

The former deputy secretary of defense, secretary of the Navy, and adviser to presidents had just read accounts of President Carter's first official press conference and of Paul Warnke's Senate testimony as Mr. Carter's nominee for the position of chief arms-control negotiator.

Mr. Carter, as he saw it, was making public offers to the Russians which, if realized, would put the United States at a distinct disadvantage. Mr. Warnke, in his view, was shifting from a conciliatory position on arms control to a tougher stance, thus betraying a lack of conviction that cast doubt on his ability to lead a negotiating team. He was, said Mr. Nitze, "an unserious person in this kind of thing."

"He says he'll just coolly execute what the President wants," said the white-haired Mr. Nitze of Mr. Warnke's Senate testimony.

"It reminds me of John Mitchell," he said. "We don't want people who are wholly 'yes' men."

Recalling his own role in helping to negotiate the anti-ballistic missile treaty with the Russians, Mr. Nitze said that the American negotiators exercised considerable initiative.

#### HOMEWORK CONCEDED

Of all the "hawks" engaged in the current debate over national security, Mr. Nitze is probably the most listened to. For one thing—however much his critics may disagree with him—they have to concede that he does his homework and that he has wide experience in the national-security field. In addition to holding top Defense Department posts and serving as secretary of the Navy, he was vice-chairman of the U.S. Strategic Bombing Survey during the period 1944-46. This gave him a first-hand look at the effects of the atomic bombs that devastated Hiroshima and Nagasaki at the end of World War II.

From the spring of 1969 until mid-1974 Mr. Nitze served as the representative of the Secretary of Defense to the strategic-arms limitation talks (SALT) with the Soviet Union. He resigned, he told this reporter, when it became clear that President Nixon's "Watergate crimes" had undermined the United States negotiating position. Mr. Nitze said he felt that Mr. Nixon was eager to make progress in the negotiations so as to improve his shaky domestic political position, a position that had been fatally weakened. It was no way to negotiate with the Russians, in Mr. Nitze's view, and his resignation statement he expressed doubt that real progress could be made until the United States got its house in order and upheld the Constitution.

Mr. Nitze recently joined a group of outside experts commissioned by the President's Foreign Intelligence Advisory Board to take a critical look at estimates of Soviet capabilities and intentions prepared by the intelligence agencies. The group, known as team "B," came to the controversial conclusion that Soviet military strength has been consistently underestimated.

#### HIROSHIMA MEMORY ETCHED

Speaking of his experience at the end of the war, Mr. Nitze said, "I have an intimate knowledge of the effects of the Hiroshima and Nagasaki A-bombs. I want to devote my life to minimizing the chances of that ever happening again and to minimizing the

chances that the Gulag Archipelago spreads all over the world."

His experience in negotiating with the Russians has led him, he said, to believe that they understand strength and firmness, but do not necessarily respond to restraint on the part of the United States.

Mr. Nitze further believes that more attention should be paid to the Soviets' civil-defense system and to what the Soviets say in their own literature about the possibility of nuclear warfare. Americans, he contends, think almost exclusively in terms of "deterrence" such a war, while the Soviets think more about what might actually happen in such a war.

The former arms-control negotiator believes that the Soviet civil-defense program weakens the U.S. nuclear deterrent by reducing the vulnerability of the Soviet population, a view that is sharply disputed by a number of experts.

In a recent article in the magazine *Foreign Affairs*, Mr. Nitze wrote that all the trends in the development of nuclear weapons are moving in a direction favorable to the Soviet Union.

"Today, after a strategic nuclear counterforce exchange under normal U.S. alert conditions, the Soviet Union would hold superiority in all indices of capability except numbers of warheads, and even that sole remaining U.S. advantage would be gone within two or three years," he declared in that article.

"Neither SALT I nor the projected SALT II agreements have had—or promise—any discernible effect in arresting the trend toward an increasingly large margin of Soviet superiority."—D.S.

[From the *Washington Post*, Feb. 22, 1977]

WHY PAUL WARNKE SHOULD NOT BE CONFIRMED AS DIRECTOR OF THE ARMS CONTROL AND DISARMAMENT AGENCY AND CHIEF NEGOTIATOR FOR THE STRATEGIC ARMS LIMITATIONS TREATIES

An open letter to the United States Senate:

Dear Senators:

During the recent Presidential election campaign, Candidate Carter advocated a strong National Defense. He did this in the second debate and in other campaign speeches. Had he not done so, there is good reason to believe that he would not now be President.

It is also unlikely that he would be President now had he announced his choice for Director of the Arms Control and Disarmament Agency before the election. It is shocking that he has nominated Paul C. Warnke, an advocate for many years of one-sided disarmament in the face of continued Soviet buildup of nuclear and conventional military forces worldwide.

Few thinking Americans would oppose bilateral, equal cuts in the military strength of the two world superpowers, provided the terms of such treaties are faithfully observed by both. Most Americans would welcome relaxation of world tensions. Few would want it, however, at any risk to our freedom.

#### A QUESTION OF JUDGMENT

Since 1975, Mr. Warnke has been a registered agent of the Government of Algeria, a government which is a public supporter of terrorist groups, including the Palestinian Liberation Organization (PLO) and the Black Liberation Army which was involved in murderous attacks in the United States.

Columnist John P. Roche, a Democrat, puts the problem this way in the *Washington Star*, February 11, 1977:

"... [Warnke] has indicated on a number of occasions he trusts totalitarians. In 1973, he went so far as to state that Saigon, not Hanoi, offered the major threat to maintaining the Paris agreement's military cease-

fire. Anyone who believed this could believe anything and anyone who can believe anything should not be negotiating with the toughest crowd of ideological gangsters of the 20th Century..."

#### DEMOCRATIC OPPOSITION

A memo, written by moderate Democrats, summarizes Warnke's dove-like positions across the years and concludes:

"... simply stated, it is hard to see how the American side in SALT can be effectively upheld by someone who advocates, as Warnke does, the unilateral abandonment by the United States of every weapons system which is subject to negotiations at SALT (as well as many others which are not under discussion)."

#### THE EMERGING STRATEGIC IMBALANCE

Since 1971, the Soviets have been ahead of us in operational strategic offensive delivery vehicles, according to the *United States Military Posture for the Year 1978*, issued by General George Brown, Chairman of the Joint Chiefs of Staff. In addition, the report comments, the Soviets are ahead of us in operational strategic offensive throw-weight at this time, and will be further ahead of us by the end of Fiscal Year 1982.

#### NITZE AGAINST CONFIRMATION

Paul H. Nitze, a respected Democratic defense authority, in a letter to the chairman of the Senate Committee on Foreign Relations, recently stated, in opposing the Warnke appointment:

"... [Warnke takes] a highly cavalier attitude concerning significant cuts [in the military], not only in almost all elements of those U.S. conventional capabilities but also in those improved U.S. nuclear capabilities that might make escalation less likely... I am concerned that Mr. Warnke, who has spoken with such certainty on matters of military requirements, weapons capabilities and strategy, may nevertheless not be a qualified student or competent judge of any of those matters. It is claimed that he is a superb negotiator. I am unfamiliar with his successes in this area. I recognize that he has certain abilities as an advocate, but at least with respect to defense matters, these do not include clarity or consistency of logic. I doubt that such advocacy has much of a chance of success against the strategy and tactics of the highly serious and competent Soviet negotiators..."

*Washington Post* columnist George F. Will made this comment in the February 10, 1977 issue of the *Post*:

"In 1965, when Defense Secretary Robert McNamara included Warnke among his advisers, McNamara announced: 'The Soviets have decided that they have lost the quantitative race, and they are not seeking to engage us in that contest.' Now [the Soviets] have emerged quantitative superior, but Warnke has unshaken—and, it seems, unshakable—faith that unilateral U.S. abandonment of some strategic programs will evoke Soviet restraint. So he has opposed Trident submarines, B-1 bombers, cruise missiles, improved missile accuracy, more multiple independently targeted re-entry vehicles (MIRVs)—in short, most of what arms negotiations are about. He wants the United States to undertake 'unilateral initiatives'—curtailments—more drastic than the Soviet Union has yet had the audacity to demand."

#### WARNKE'S OWN STATEMENTS

Mr. Warnke has written:

"... Secretary of Defense Schlesinger, in a television documentary on 'Peace and the Pentagon,' predicted that if we were to 'drop the torch,' there would be no one to pick it up. I hope that he is right. . . . The proposition that we must remain ahead of the Soviet Union in most if not all perceptible elements of military power is the second fallacy that inflates defense spending. . . .

We might inform the Soviet Union both privately and publicly that we have placed a moratorium on further MIRV-ing of our land- and sea-based missiles. We should also announce that a hold has been placed on development of the Trident submarine and the B-1 strategic bomber . . . We can, and should, for example, substantially reduce the numbers of tactical nuclear weapons now deployed in Europe . . ."

Mr. Warnke has repeatedly expressed the view that new American weapons developments will be "destabilizing" and will stimulate the arms race. He almost never expresses a similar concern about Soviet arms buildups.

In summary, the U.S. Senate should vote down the confirmation of Mr. Paul Warnke as Director of the U.S. Arms Control and Disarmament Agency and Chief Negotiator for the Strategic Arms Limitations Treaties (SALT Talks).

Sincerely,

DANIEL O. GRAHAM.

JOHN M. FISHER.

*Emergency Coalition Against Unilateral Disarmament Co-chairmen.*

[From the *Charleston (S.C.) News and Courier*, Feb. 24, 1977]

MR. WARNKE AND SALT

Unwarranted abuse is being addressed to Paul Warnke. President Carter's nominee for chief U.S. disarmament negotiator. Mr. Warnke's respectable record as a public servant entitles him to a fair hearing even from those who disagree with him. The senators, we hope, will reject out of hand contentions coming from a loony fringe that Mr. Warnke is a Kremlin agent just because he has written and spoke in favor of withholding deployment of certain weapons and delaying the deployment of others to see if the Soviet Union reciprocates.

All the same, it is patent that Mr. Warnke has greatly undermined his chances of getting an even break from the Soviets if he should be appointed. The best kind of man to send to talk to the Russians is one from whom they know not what to expect. The second best is one who can be expected to take a line which enforces "give" upon the part of the Soviets as well as allowing them some "take." The least desirable man is the one who has telegraphed his position in advance. Knowing where Mr. Warnke once stood gives the Soviets a headstart in a contest of will in which all parties ought to be getting off the mark exactly even.

The fact that he has taken his own positions on disarmament does not, of course, mean that Mr. Warnke must remain locked into those positions.

If he goes to the Strategic Arms Limitation Talks as President Carter's representative, he will be there to express Mr. Carter's views and not his own. It is not inconceivable that between now and then his own ideas will undergo revision.

That does not entirely remove the fundamental objection to Mr. Warnke's appointment. Knowing that he felt a certain way once, the Russians will be justified in suspecting that he still feels that way. They will be constantly probing for what to them appears to be his weakness. The United States cannot afford to have an absolutely inflexible man at SALT. It cannot afford, either, to have someone who is too accommodating. Flexibility at SALT is desirable. It has to be the flexibility of a steel spring which bends and twists but does not give—and is ready to snap back.

#### EASTERN COAL ESSENTIAL TO ENERGY INDEPENDENCE

Mr. GARN, Mr. President, despite passage of emergency natural gas legislation

last week we remain in the midst of a serious energy crisis in the United States. No one can say that the American public has not been warned about the possible natural gas shortages; warnings of such shortages go back many years. And I firmly believe that they could have been avoided had we long ago deregulated natural gas and developed a more rational pricing system. But whatever the reason, the crisis exists and it will not soon be over.

If we are to avoid even more serious situations in the next year or two we must immediately proceed with increased use of the one fossil fuel that we do have abundantly available: coal. In the long run there will be alternative energy sources which will be clean burning and renewable but for the immediate present we must use the coal we have available and we must develop the technology to use it more efficiently.

Mr. President, the senior Senator from West Virginia has long been in the forefront of those who have clearly foreseen this need for increased coal usage. On November 15 of last year Senator RANDOLPH spoke to the Eastern Coal Forum in Charleston, W. Va., and he accurately addressed a number of the issues we face today. Certainly, Senator RANDOLPH and I do not agree on every detail of a desirable coal utilization program. But Senator RANDOLPH is certainly to be commended for his foresight in calling attention to the problems of coal development and use, and his sponsorship of legislation which will produce the technology for allowing for more efficient use of this, our most abundant energy resource.

Senator RANDOLPH notes, for instance, that—

For the most part, the energy savings achieved since the 1973 embargo have resulted mainly from our economic recession, higher energy prices, and the 55 miles per hour speed limit.

As Senator RANDOLPH notes, until renewable energy sources are developed "only the vastly expanded production and utilization of coal can lessen the United States long-term dependence on unreliable foreign oil."

Mr. President, I ask unanimous consent that Senator RANDOLPH's speech be printed in the RECORD, in hope that his wisdom in this area will serve as a lesson to all Senators, so that we can avoid future crises of the kind we are now undergoing with respect to natural gas.

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

[From the Mining Congress Journal, January 1977]

**EASTERN COAL IS ESSENTIAL TO ENERGY INDEPENDENCE: ITS LONG TERM ROLE**

We were confronted with a grave emergency energy crisis three years ago—and we are in the grips of a continuing and deepening crisis. The difference is this: today's crisis is less widely recognized than was the 1973 oil embargo which beat on our economy and drove us into the ground. But this critical energy problem is potentially more severe than was that of 1973.

Our national demand for energy continues to increase—although at a slightly less rapid rate. We import considerably more oil than we did in 1973, but, after repeated declarations that we must do so, we have failed to

develop a National Fuels and Energy Policy. Neither have we acted in these United States to meet a proper proportion of our energy requirements from the most abundant fuel resource—coal.

Less than two months ago, the United States elected a new President. Next Jan. 20, the Carter Administration will begin to grapple with national problems which face the American people—foremost among them being energy.

Many of us have long known that America must make greater use of coal to supply our energy needs. We will be fortunate in having in the White House a man who shares this belief.

**CARTER STATES COMMITMENT TO COAL**

It was in Charleston on Aug. 14 that candidate Jimmy Carter stated his commitment to coal. He said: "The future of West Virginia Appalachian coal is indeed bright if we can have a government policy that recognizes this valuable resource."

In an interview a month later, Governor Carter said "a shift from oil to coal" is a key part of his proposed energy program for our nation.

President-elect Carter gave me several opportunities to discuss this subject. So, I have reason to anticipate that we will have an administration aware of the importance of coal and determined to use this vast resource for the benefit and security of the United States. This is essential to creation of an orderly energy policy and the reduction of our perilous dependence on foreign sources of energy.

Americans are conscious of the benefits our country has derived from its abundant natural resources. The energy resources of Appalachia have been fundamental to the industrial development of our nation as a whole and are essential to the continued prosperity of these United States.

Appalachia is the prime eastern source of domestic energy supplies. As such, this region will serve a special role in the achievement of energy self-sufficiency by our country.

We must not repeat past errors. We must reappraise our attitudes toward the production and the utilization of non-renewable resources. We must temper resource consumption with concern for the quality of the environment and the need for energy conservation.

**ENERGY, ENVIRONMENTAL ISSUES ARE RECONCILABLE**

Some individuals believe environmental protection should be pursued above all other national goals. Others advocate growth and production as the lone objective. But I emphasize that either of these extremes would impose excessive societal costs on our country—costs which are neither desirable nor necessary.

The relationship between energy and environmental quality cannot be cast aside. We should agree that the issues surrounding energy and environmental quality are reconcilable with give and take.

We can have a clean and healthy society and a productive society. But for this to occur the issues of energy versus all-out production must be equitably resolved. Our great nation has survived because concerned citizens reconciled many opposing viewpoints in a balanced and responsible manner. In the implementation of environmental laws, however, this has not always been the case. But I am confident that the American people and the citizens of Appalachia will continue to demand that reasonable judgments be applied in the search for equitable solutions to these problems which press in on us.

**NATIONAL ENERGY POLICY NEEDED**

On many occasions since early in World War II, I have urged that there be a national commitment to meet our country's energy requirements from domestic resources. Meanwhile, the needs of the American consumer for energy have continued to grow and they

must be satisfied. As a consequence, domestic petroleum resources have been depleted and we have increasingly turned to oil from overseas.

Before the 1973 OPEC embargo, both industry and government assumed that international oil prices would remain low and supplies from abroad would be easily available. The fallacy of this assumption was revealed by several events to wit: in the early 1970's oil production peaked in the United States—the largest oil user; concurrently, world energy requirements and international oil trade increased dramatically; and the major oil producing nations took over greater control of their energy resources from multi-national oil companies.

As world oil prices escalate, so does the economic attractiveness of greater coal utilization. The long-term role of coal is now established if people will study the problem; but this role has yet to be integrated into a coherent National Fuels and Energy Policy.

**OIL IMPORTS DOUBLED SINCE 1971**

The stark reality is that until at least 1985 the United States cannot satisfy its tremendous appetite for energy without increasing oil imports. The production of domestic alternatives, such as coal, cannot grow fast enough. The alternatives to oil imports are mechanisms such as rationing or severe and mandatory energy conservation.

Because of our frustrating inaction, many possibilities earlier considered viable are no longer realistic. For example, 1970 projections for synthetic oil and gas supplies from coal by 1985 have been reduced drastically to approximately one-seventh the earlier estimates. The resultant shortage must be filled by oil imports. Similar shortfalls for nuclear power also will have to be filled by oil imports—assuming they are available. This is a distressing condition for us to contemplate.

Oil imports in 1971 were approximately 3.4 million bbl per day, at an annual cost of \$3.7 billion. By comparison, 1976 energy imports are up 10 percent over 1975 to almost 7.5 million bbl of oil per day or 43 percent of national oil requirements. This doubling of amount has been accompanied by a ten-fold increase in annual American consumer costs to \$35 billion.

Moreover, 1980 imports are expected to grow to \$45 billion at current prices, and a 10 percent price increase is expected before the end of this year so future costs will be even higher.

These trends transform public uncertainty over inflation into a conviction that the situation unfortunately is chronic. We are exporting United States dollars to industrialize other countries. These moneys should be invested in coal production and utilization.

We are at the crossroads. We must select the road to economic prosperity through energy independence. But will we choose and take the right courses of action?

**U.S. ENERGY FUTURE DEPENDS ON GREATER COAL USE**

Energy conservation can minimize the economic impact of energy independence, but its influence on growth of energy demand is yet to be realized in any adequate degree. For the most part, the energy savings achieved since the 1973 embargo have resulted mainly from our economic recession, higher energy prices, and the 55 miles-per-hour speed limit. The most recent estimates by the Department of Transportation indicate that universal observance of the national speed limit would reduce consumption by 200,000 bbl a day.

But even should major conservation efforts reduce the rate of growth of energy consumption, our country's energy future would depend on greater coal utilization for the next 80 to 100 years.

Some persons question the wisdom of expanded coal production and utilization.

These critics advocate the use of renewable energy sources. But such sources as solar, geothermal, wind and tidal power have inherent disadvantages. Long research and development times are required before their commercial application. Solar heating is an exception.

Renewable energy resources offer significant potential, but it may take 50 years to harness them. In my judgment, this is an unnecessary gamble. These technologies are unproven as sources of bulk energy supply.

In the interim only the vastly expanded production and utilization of coal can lessen the United States' long-term dependence on unreliable foreign oil.

Even the world's petroleum resources are limited when compared to coal. Ultimate worldwide reserves of natural gas and oil are estimated at approximately three times proven reserves. In addition, they are concentrated in a few countries with over half of them being in the tempestuous Middle East. By comparison, presently recoverable coal reserves are more than three times oil and gas reserves. Ultimate worldwide coal reserves are estimated to be 15 times greater and are distributed more uniformly.

Coal is an effective source of heat; and it can be converted into gaseous and liquid fuels, and into chemicals, too. The role for coal as the natural successor to oil and natural gas thus is established. So is the role for Appalachian coal.

#### OIL AND GAS INCREASINGLY EXPENSIVE AND SCARCE

As natural gas and oil become more scarce and increasingly expensive, their advantages over coal will diminish. Bulk energy supplies, such as industrial steam and electric power generation, thus will convert to coal. Cost, rather than the conveniences of oil or gas, is the prime consideration for these large-scale users.

For example, the cost of electricity is very sensitive to increases in the cost of primary energy, such as the increase in international oil prices over the last three years. Since these prices can be expected to continue to rise, it would be in the consumers' and the national interest for utilities to convert to coal.

To encourage greater coal utilization, I introduced S. 1777 in the 94th Congress. This measure would have required new electric power plants and other major fuel burning installations to be constructed to use coal where consistent with environmental policies. Experience with the Energy Supply and Environmental Coordination Act of 1974, which I also sponsored, indicates that numerous existing power plants can be converted from oil to coal at reduced electricity costs for consumers.

Since inception of this program, the Federal Energy Administration has notified 122 electric power plants of proposed coal conversion orders. Subsequently 30 such orders were finalized, which will increase annual coal demand by 43 million tons. Moreover, oil imports will be reduced by 155 million bbl annually, at a savings of \$500 million a year to consumers. When the additional orders are finalized, even greater reductions in oil imports will be possible through greater coal utilization.

Early in the 95th Congress I will reintroduce coal conversion legislation. This measure would provide a stability to future energy supplies not presently afforded by oil imports.

In the long term, significant improvements also are possible in the direct utilization of coal by fluidized bed combustion. This technology offers dramatic improvements in the efficiency of coal utilization and in reducing adverse environmental impacts, when compared with conventional systems. A fluidized bed test facility is planned at the Morgantown, W.V., Energy Center by the Federal Energy Research and Development Administration. This program must be expanded.

#### GAS FROM COAL CHEAPER THAN ELECTRICITY

As natural gas production declines, substitute energy supplies must be found. The United States presently has over \$100 billion invested in its gas transmission, distribution and end-user equipment system. On an economic basis, keeping these gas pipelines full, even with higher priced synthetics may be cheaper for the American consumer. Extension of the useful life of present pipeline systems is cheaper than creating new systems—cheaper by far.

First generation coal gasification technologies were commercially developed during World War II by Lurgi and by Koppers-Totzek. These technologies also were demonstrated in the United States under the Synthetic Liquid Fuels Act of 1944, which I sponsored with former Sen. Joseph O'Mahoney. While uneconomic at that time, recent data indicates that synthetic natural gas for cooking, clothes drying, space and hot water heating is significantly cheaper than is electricity. The production, transportation and distribution of natural gas also is more efficient—67 percent for synthetic natural gas compared to 37 percent for electricity. To deny American consumers such synthetic substitutes would be to commit them to higher cost alternatives.

The capital required to produce and deliver a unit of energy in the form of synthetic natural gas from coal also is less than that required to produce electricity from coal. The use of utility-financing mechanisms could reduce synthetic fuels prices by one-third, compared to 100 percent equity financing.

#### FEDERAL FUNDING NEEDED FOR COAL LIQUEFACTION

In the longer term, coal liquefaction also will be important in the production of chemicals and similar specialty products and in the production of liquid fuels for transportation. However, timely commercial development of coal liquefaction by the private sector, without federal assistance, would appear unlikely. In June 1975 the Federal Energy Research and Development Administration projected that coal liquefaction would contribute 2.5 million bbl of oil per day by 1985 from first generation processes. However, the General Accounting Office recently found that, "it (is) highly unlikely that any commercial-size coal liquefaction plant will be operating in the United States in 1985." Direct funding by the federal government, with industry participation, would seem necessary for the development of this technology before the 1990's.

Clearly the inadequate federal commitment to the development of coal gasification and liquefaction does not reflect the urgency of our country's energy problems. Because of the small federal non-nuclear energy research programs, the United States must now stockpile high cost oil in an attempt to neutralize oil against the possibility of another embargo. Oil, I emphasize, is too important to our economy and the economy of the world to be used as the political weapon of a few privileged producers.

By the end of 1978 approximately 150 million bbl of crude oil will be stored at federal expense. The full reserve system will entail one billion bbl; enough to supply 3 million bbl per day for one year. This strategic reserve capability is intended to protect our nation's economy against a recurrence of the massive unemployment that confronted the nation during the 1973 embargo.

But let us consider the costs and what could be achieved for the same investment. These emergency stockpiles will cost about \$12.5 billion. An identical federal investment could construct coal gasification facilities capable of supplying the equivalent of 1 million bbl of oil per day for at least 20 years.

The assertion that synthetic fuels are not cost effective fails to recognize the costs of

synthetic fuels from the standpoint of the consumer.

#### FEDERAL INCENTIVES NEEDED

The United States does not presently possess the necessary infrastructure to support wide-scale deployment of such technologies. The establishment of a synthetic fuels industry is too large a task to be undertaken under emergency conditions following major natural gas curtailments or worldwide oil shortages. However, development of this capability can be undertaken now, while our country is at peace, and completed over the next five to ten years.

Two years ago the Congress created the Federal Energy Research and Development Administration to foster non-nuclear energy alternatives. Subsequently, the Federal Non-Nuclear Research and Development Act of 1974 authorized the use of such federal incentives as direct grants, contracts and loans. The 1974 act also authorized federal purchase of products and the creation of government-industry corporations.

These federal programs and incentives now must be restructured toward major development of synthetic oil and natural gas. However, wavering and uncertainty presently surround the federal financing of synthetic fuels.

If we wait until the economics are precisely defined, conventional oil and gas supplies will be on their deathbed. Our economy will be in chaos. The United States cannot afford to wait. We must act now to commercially demonstrate known technologies. Construction of a limited number of first generation systems can provide us with financing as well as operating experience. To stimulate such activity in 1975 I introduced legislation to provide federal loan guarantees for the development of synthetic fuels. Governor Lamm of Colorado recently endorsed such federal loan guarantees as necessary for the orderly development of a synthetic fuels industry in the United States.

Legislation to carry out such a program has passed the Senate twice in varying forms. On two occasions similar bills have been defeated in the House. The proposed loan guarantee program would have encouraged the early construction of pioneer facilities to demonstrate the potential of new energy technologies. I will continue to work toward its early enactment.

Appalachia has extensive energy expertise which is not being utilized. This national resource can and must be applied to the commercialization of new energy technologies. Too much emphasis is being placed by ERDA on the use of national contract laboratories originally established in support of nuclear power. An Appalachian National Energy Laboratory is needed to fully utilize the energy and coal research capabilities existing within the region, including West Virginia. The Senate approved my proposal in July for such a laboratory, but this action also failed to receive House concurrence. I will continue to support the need for such a facility.

#### UNCERTAINTY REDUCING COAL PRODUCTION OUTLOOK

But all this cannot come about without increased coal production. As recently as two years ago, national leaders were advocating a doubling in coal production by 1985 to 1.2 billion tons. However, this figure has been reduced to 1 billion tons and its achievement is in jeopardy due to uncertainty of federal policies.

Many new additions planned by coal companies between now and 1980 have been postponed. Nevertheless, over the next 10 years, the coal industry plans 508 million tons of new or replacement capacity, according to the National Coal Association. Approximately 230 million tons will be added east of the Mississippi with the largest additions being planned for West Virginia, Illinois and Kentucky. Almost all of the 193 million tons of new underground capacity is expected in

the East. Appalachia will hold a key role in this production.

But federal incentives are needed to stimulate even greater additions in the East. Federal loan guarantees were approved by the Congress in December 1975 for this purpose. However, this program has yet to be implemented by the Federal Energy Administration. Clearly this does not represent recognition of the urgency of the problem.

#### UNPRECEDENTED GROWTH AHEAD FOR COAL OUTPUT

After almost 20 years of famine, the coal industry can logically question whether today's prices and projected growth are real. But real they are, along with the pressing responsibility to act constructively, purposefully and with vision. Not with a vision of what next year's market may be, but a vision of the emerging contribution that coal must make during the next century.

However, unless the coal is produced at reasonable costs and at reasonable profits, the timely conversion of coal to synthetic gaseous and liquid fuels is unlikely to proceed.

The coal industry is faced with a future of unprecedented growth in production. There are needs for a steady improvement in coal recovery, improved safety and higher production rates, as well as more and better surface mine reclamation.

The future for a greater coal utilization is inextricably intertwined with coal production yet to be realized in the United States. The Congress, industry and the American people must support the long-term development of sufficient domestic energy supplies to assure economic stability in the tomorrow which will stand us in good stead. The coal resources of the United States are a cornucopia which at long last can pour forth its manifold gifts for the greater comfort and security of all people.

#### TOWARD A SUSTAINABLE ENERGY SOCIETY

Mr. PERCY. Mr. President, I have recently read a compelling analysis of the Nation's energy future. It is called the Wolfcreek Statement, and it is the product of a meeting held last October in the North Georgia Mountains at Wolfcreek Wilderness.

I urge my colleagues and others to study this document. It is lucid, brief, and arresting. I am delighted that one of the participants in the project, Eugene P. Odum, director of the Institute of Ecology at the University of Georgia, has agreed to serve on the Advisory Board of the Alliance To Save Energy.

I ask unanimous consent that "The Wolfcreek Statement: Toward a Sustainable Energy Society" be printed in the RECORD.

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

#### THE WOLFCREEK STATEMENT: TOWARD A SUSTAINABLE ENERGY SOCIETY

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David W. Orr and Cecil R. Phillips.

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#### ACKNOWLEDGEMENTS

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#### SUMMARY

The United States urgently needs a rational energy policy. Without a comprehensive and farsighted approach to energy, we cannot implement sound foreign, economic, agricultural, or urban policies. The time has come for a new policy based on new realities. Clinging instead to outmoded ideas and extending past trends of exponential energy growth will seriously damage our social and economic health and will soon put our best alternatives out of reach. If we chose now, however, we can expand our options for the future while strengthening our economy and society.

The keystone of a rational energy policy must be a national commitment to energy conservation. Such a commitment will provide the time we need to develop and deploy energy technologies that are safe and sustainable, appropriately scaled, and economically sound. To achieve these objectives we recommend: (1) removing all subsidies for non-renewable fuels; (2) placing a royalty on non-renewable fuels in a manner that is equitable to all and beneficial to the economy; and (3) eliminating all institutional barriers to efficient energy use.

The advantages of this course are overwhelming: employment can be increased; inflation can be more easily controlled; pollution can be reduced; scarce resources can be conserved; social equity and the quality of life can be improved; dependence on foreign energy sources can be reduced; and the pressure toward nuclear proliferation can be relieved. But time is short. More than half of our recoverable domestic supply of our two choicest fuels has been exhausted.

The future holds inevitable conflicts between habits and prices, between convenience and vulnerability, between the broad public good and narrow private interests. To solve these conflicts our approach requires active leadership by the President and by those in all levels of government—leadership that encourages new attitudes about people, resources, and the economy. We make no pretense that such a course will be easy, but we believe that, given strong leadership, the people of this nation will join in the search for a viable future.

#### I. CONVENTIONAL ENERGY FORECASTS

Present energy forecasts describe the United States as caught in the iron grip of inexorably rising demand. According to such forecasts population will increase by less than one-fifth in the next few decades, total energy demand will double, and demand for

electricity will triple (3)\*. The advertisements paid for by U.S. energy companies and their financial supporters threaten that any reduction in energy use means cold homes and rising unemployment. Not surprisingly their forecasts show the necessity of unlimited energy growth. But such self-fulfilling predictions elevate energy from a means to an end on the assumption that the more energy we use the higher will be our quality of life. We suggest, on the contrary, that unlimited energy growth leads to increased unemployment, persistent inflation, serious capital shortages, and social instability.

The physical realities of the conventional energy approach are becoming all too familiar: thousands of giant power stations, both coal fired and nuclear; ubiquitous transmission towers; vast stripmines; thousands of arctic and offshore oil and gas wells; and huge refineries. We are promised even more: a massive new synthetic fuels industry; oil shale development with even more stripmining; coal slurry lines; and the emergence of a plutonium economy and its attendant transport and support facilities.

The economic realities of the conventional course are equally dismal. Synthetic fuels are many times more capital and energy intensive than are traditional direct fuel technologies, and electrification is even more capital demanding. The costs of a high energy growth program are responsibly estimated to be as much as two-thirds of all net new capital investment between now and 1985(9). Such vast expenditures would, among other things, foster rising prices and deprive industry of the funds it needs to invest in more energy-efficient technologies. Moreover, such an investment pattern would push unemployment upward since investments in energy facilities produce fewer jobs per dollar than any other investment we can make.

The environmental risks of the proposed giant energy technologies are forbidding. Drilling for oil in arctic and offshore areas would introduce unprecedented technical risks to fragile regions. Coal, shale, and uranium mining would devastate hundreds of communities and millions of acres, often irrevocably. The predicted doubling of the amount of carbon dioxide in the atmosphere from the burning of fossil fuels will jeopardize climatic stability and world agriculture. Energy growth increases the likelihood that catastrophic events—including nuclear accidents, oil spills, natural gas explosions, and dam failures—would undermine both natural and social systems.

Ecological risks would be joined by social and political risks. Centralized energy systems would have to be protected against the terrorist attacks to which they are vulnerable, and against the legitimate dissent they are likely to arouse. The powers of the state would have to expand to try to divert needed resources into the energy sector to override local siting objections, to substitute elitist technocracy for democratic processes, and to regulate energy through bureaucracies far removed from the people they supposedly serve. The resultant changes in a democratic society ought not to be taken lightly in view of our recent experience of abuses of police power by the CIA and the FBI. Moreover, the conventional path of energy growth could lead to the creation of "zones of national sacrifice" and to divisive interregional conflicts.

Similar divisions and conflicts could occur internationally. Expanded use of complex and expensive technologies developed by the wealthy states could in poorer countries create technological dependencies and

\*The numbers in parentheses refer to references listed at the end of article.

commercial monopolies while simultaneously imposing inappropriate cultural patterns and values upon the new users. Even more important, American reliance upon nuclear power both directly and indirectly promotes the international spread of nuclear power and its inevitable companion: nuclear weapons capability.

The United States is now at an historic crossroad in its national life. Before us is the unprecedented task of moving from dependence upon a rapidly declining non-renewable energy base to dependence upon a new base that is as yet undetermined. Our present drift can only lead us into unresolvable conflicts between energy production and food production, between democratic ideals and emerging technological imperatives, and between safety and our seemingly relentless addiction to energy. History offers few, if any, examples of equivalent challenges. To a large extent the ultimate success of the incoming administration will depend upon its ability to create a rational, farsighted energy policy to guide the nation through this transition.

#### II. THE CASE FOR CONSERVATION

We reject the conventional approach to the energy problem and with it any notion that we must be compelled by the force of uncontrollable energy demands. But if, as we argue, our present course is unacceptable, is there a plausible, realistic alternative? We believe there is. A growing body of evidence suggests that an energy conservation program that would allow us time to create a sustainable energy posture is possible in the immediate future (7,12). But while desirable, such a program is not inevitable, and is indeed improbable without a major national commitment and a transition policy extending over a period of several decades.

The largest source of energy available to the United States is the energy we currently waste. Our country ranks only fourteenth among the eighteen members of the International Energy Agency in terms of effective energy conservation efforts (10). Sweden, West Germany, and Switzerland, at comparable standards of living, consume only 60 percent as much energy per capita. In 1976 Americans wasted more fossil fuel than was used by two-thirds of the world's population. This excess, which currently comprises one-half of our energy budget, represents our nation's largest, cheapest, cleanest, and safest near-term source of new energy.

It is feasible for the United States to sharply increase its energy efficiency by the year 2000 and in the process greatly extend its energy supply. Energy consumption can be made more efficient by carefully matching the quality of fuel with the quality of work desired. Such matching would eliminate, for example, the burning of high quality natural gas and oil at temperatures in excess of 1000° to obtain room temperatures of 70°. Energy consumption can also be reduced by changing the patterns of consumption to favor efficiency through the use of mass transit, bike-ways, cluster housing, district heating, and recycling (11).

The list of good ways to conserve energy is long. For example, ceiling insulation in a typical home costs about \$300 but will save about seven barrels of oil each year for the lifetime of the house. These seven barrels, which are as valuable as new oil pumped out of the ground, can then be employed more productively elsewhere. The energy saved in just 10 years would amount to 70 barrels, which means that we are "producing" oil at \$4.30/barrel. When heating oil costs \$3 per barrel, insulation was no bargain. But today, heating oil often costs \$16 per barrel, and insulation has become a cheap source of new energy.

Industry currently consumes 40 percent of this country's fuel. Recent studies by the Conference Board and the Ford Foundation's

Energy Policy Project suggest that enormous energy savings can be made with existing technology without denting industrial productivity (2,4). The primary metals industries use about one-fifth of all industrial fuel. By adopting technologies now widely employed in other countries, the steel industry can reduce its inordinate fuel demands by about 50 percent by 1995. Using the new chloride process instead of the traditional Hall method to refine aluminum yields energy savings of about one-third. Recycled scrap aluminum requires only 5 percent as much energy as aluminum refined from virgin ore.

Forty-five percent of all industrial fuel is used to generate process steam. If this steam were first used to generate electricity and then used as process steam, considerably more electricity would be produced than the entire industrial sector now purchases from utilities. The additional fuel and capital needed per kilowatt-hour of industrial "co-generation" is only half that required by the most efficient new centralized powerplants.

From 30 to 50 percent of the operating energy in most buildings can be economically conserved now. Moreover, the American Institute of Architects estimates that the use of advanced conservation technologies including solar devices, heat pumps, and total energy systems can conserve up to 80 percent of energy consumption in new buildings (1). A national commitment to upgrading the energy efficiency of buildings would, by 1990, save the equivalent of 12.5 million barrels of oil a day.

Equally dramatic energy savings are within practical reach in the transportation sector. The use of manual transmissions would save one-tenth of all automotive fuel consumed. Switching to radial tires would save another tenth. Reducing the average vehicle size from 3,600 pounds to 2,700 pounds would save the nation one quarter of its present gasoline use. Carpooling, the use of mass transit, and greater use of railroads could further cut energy waste.

Aside from the intrinsic merit of saving scarce fuels, the case for energy conservation rests on at least four additional points. First, conserving energy by substituting labor for energy can help to reduce unemployment. A carefully designed program of energy conservation can create up to 930,000 jobs per quad\* of energy saved (6). The return to a more labor intensive economy can also encourage meaningful employment and worker participation, both of which are conducive to personal development. Second, by increasing employment while encouraging energy thrift, we can reduce the rate of inflation. Third, conservation will reduce the environmental damage implicit in the acquisition, transport, and consumption of energy. Fourth, energy conservation allows us to reduce our reliance on foreign sources of fossil fuels, which has steadily increased despite a stated policy of "energy independence."

#### III. THE LONG-TERM GOAL: A SUSTAINABLE ENERGY SOCIETY

Energy conservation will give us the time we need to make a transition from an energy base consisting of geologic capital (oil, coal, natural gas, and uranium) to one based on renewable, safe, direct and indirect solar income. This time provides a reprieve in which we can examine alternative energy technologies. If our present knowledge advances even modestly over the next several decades, we may confidently expect a rising level of energy derived from the renewable income sources (9).

In most respects solar power is an ideal

\*Quadrillion BTU's. Total U.S. energy use in 1974 was 73 quads.

energy source: it is free, abundant, and safe; it implies no social or political regimentation; and it can either be used in its low temperature form or concentrated to high temperatures. Solar energy can be used directly as a source of low grade heat (which constitutes over one-half of our energy needs), and indirectly in the form of wind and bioconversion for industrial processes. Moreover, there is reason to expect that the direct conversion of sunlight into electricity will be commercially feasible within the next two decades.

Because sunlight is compatible with decentralized applications, many solar proposals dispense entirely with the expensive transportation and distribution networks that encumber conventional energy sources. But this savings must be weighed against the additional costs of collecting and storing a form of energy that is dilute, intermittent, and seasonally variable.

Objections to solar energy on grounds that it is more expensive than its alternatives are based on the practices of discounting the value of energy resource in situ of granting of depletion allowances to encourage resource exploitation. The illusion of cheap energy based on this kind of thinking has led to extravagant use and rapid exhaustion of scarce supplies. Pricing non-renewable fuel at its renewable replacement cost, which is at least as logical and a good deal wiser, would make the price of renewable energy technologies competitive immediately.

A sustainable energy posture would also offer the advantages of greater political stability and immunity to disruption through sabotage. The vulnerability of decentralized technology systems to terrorism and the likelihood that they will be misused as weapons is negligible. Political stability would also be enhanced by the movement toward decentralized, small-scale, and adaptable energy production systems that reduce the need for distant, high technology experts and large regulatory bureaucracies. The positive implications for the conservation and expansion of civil liberties in such a society are considerable.

Internationally, the transition to a sustainable energy society would be the most significant contribution the United States could make to world peace. An alternative to present forms of modernization that are economically and ecologically unsustainable is obviously necessary. Modern states have climbed the ladder of prosperity only to find the upper rungs are loose. To those clamoring to make the same ascent, our protestations that the ladder cannot support our combined weight are inevitably, and properly, interpreted as self-serving. In these circumstances the creation of an alternative that would ease our weight on the ladder and demonstrate an alternative model of sustainable energy development would mean more than all the foreign aid we could conceivably muster. Initially such a course would, by freeing resources needed elsewhere, signal our serious interest in global equity and would re-establish American moral influence in the world.

Equally important would be the effect of sustainable energy goals in lessening the prospect of energy wars and in arresting the steady slide toward nuclear proliferation. To remain on the current path with a sizable U.S. commitment to nuclear energy can only encourage the spread of nuclear energy technology and, eventually, of nuclear weapons. To expect others to abstain where we have indulged lacks both prudence and wit.

#### IV. A TRANSITION STRATEGY

It is apparent that there are two mutually exclusive energy paths before the nation. One option is based upon continued drift down the path of "hard" technology. It is fraught with technical risks and with economic and social uncertainties. The second option,

which begins with a national commitment to energy conservation, represents a more cautious, sustainable approach. But while the choice of either tends to preclude the other, only the hard path is irreversible. At issue is our willingness to gamble against great odds that we can achieve a high technology solution to our energy needs and that we would be wise enough to manage the result. The option represented by a sustainable energy approach is more modest in what it promises, but it is also much less likely to imperil our future. The time for decision is now—continued drift could soon remove any possibility of moving in sustainable directions. Continued depletion of fossil fuels and growing investment of our capital and our reputation in hard technology will at some unknown date effectively preclude flexibility.

We maintain that such a course is neither realistic nor prudent, and accordingly we recommend the development of a comprehensive energy policy that commits the nation to energy conservation and to a gradual, planned transition to renewable energy sources. A comprehensive energy policy must build upon voluntary energy thrift, but it must also be implemented by all levels of government in all sectors of society, including transportation, industry, construction, and agriculture. Finally, a comprehensive policy must outline both a goal and a realistic transition strategy that does not jeopardize democratic institutions.

#### A. The removal of energy subsidies

From World War II to the early 1970's, the cost of oil, gas, coal, and electricity (corrected for inflation) fell, while the cost of virtually everything else rose. As a consequence, cheap energy was systematically substituted for labor, capital, and materials wherever possible. Thus, the problem of designing an energy efficient state is in large part one of assigning appropriate values to high quality fuels whose scarcity is not yet adequately reflected in the marketplace.

A first step in a rational energy policy, then, is to remove distortions in the fuel marketplace created by tax loopholes, depletion allowances, intangible drilling costs, foreign tax credits, and promotional rate structures. The effect of removing such subsidies and of enforcing anti-trust laws would be to curb waste and to provide additional sources of federal revenue.

#### B. An energy royalty

While eliminating all subsidies to energy growth is necessary, such a step is not, in our judgment, sufficient. To achieve the goal of conservation and to encourage the use of renewable sources, a general increase in the cost of energy relative to its primary substitutes of labor and capital is recommended. To encourage both conservation and a shift toward use of renewable sources, the government must control the cost of energy so that it rises as wages and interest rates rise. The best strategy to effect the desired substitution would also involve the least governmental administration. We believe this strategy would be to place a severance royalty on all non-renewable energy sources. The use of a royalty would avoid the creation of yet another large federal bureaucracy and the consequent inefficiencies and inequities characteristic of the regulatory process. Moreover, a royalty would encourage conservation through higher prices for primary fuels such as oil, coal, and uranium but the proceeds would be awarded to the government rather than to energy companies.

By increasing the price of fuels at the point of severance—the wellhead or mine—product cost increases would occur in proportion to the direct and indirect energy required in production and marketing. Changes in consumer prices would affect the pattern of demand so that consumers would shift from purchases having a high direct energy content (eg. gasoline) and from those with a

high indirect energy content (eg. throwaway containers) and toward products and services that require less energy but more labor. Similarly, industry and commerce could be expected to react to price increases by changing to energy saving technologies.

The net effect of this process would be a gradual reduction of overall energy use and an increase in the use of labor. Hence, aside from saving scarce fuels, the most important and immediate advantage of an energy royalty would be a general increase in employment. As we have noted earlier, investments in anything other than energy will provide more jobs per dollar than expenditures on fuel. As examples: each quad of energy saved by the use of inter-city trains instead of automobiles provides 700,000 jobs; intercity buses instead of cars provides 330,000 jobs; and expenditures on a federal health insurance program instead of new highway construction would provide 640,000 jobs (5,6).

To avoid economic and social disruption, the royalty should be increased gradually over a period of several decades. Consumers and businesses would find it increasingly advantageous to economize on the use of non-renewable energy and to use labor and tax-free renewable energy instead. The rate and timing of the royalty ought to be flexible and in accord with an economically and socially optimal transition speed. The ultimate level of the tax should be set so that the cost of non-renewable energy is eventually equal to or higher than that for renewable energy. This provides an incentive to lower the cost of capturing, storing, and distributing solar energy.

The amount of energy savings derived from any given level of royalty is still highly conjectural, but studies suggest that a levy of 50 cents per million BTU's would over five years yield an 8 percent reduction in energy use and generate \$28 billion in federal revenues with only minimal effects on Gross National Product (8).

The revenues derived from this energy royalty can be used in a variety of ways. While the royalty would be borne equitably by all parts of the populace, the proceeds could be returned to the poor and elderly as rebates in order to redistribute income. Alternatively, revenues could be channeled into employment programs and the accelerated development of energy conservation and retrofitting programs such as home insulation. The royalty might also be returned to industry on a short-term basis in proportion to payroll taxes to stimulate employment.

The fuel resources of the earth are part of our common heritage and should be carefully husbanded for essential uses. A ton of steel can be recycled indefinitely, but once a gallon of gasoline is burned, it is gone forever. Most economists currently think of fuel resources in the ground as free goods; their prices encompass only the costs of extraction, refining, and (increasingly) pollution control. But their prices should also reflect an inherent value—their irreplaceability. The equivalent of that value should become part of the national treasury and should be used to compensate future generations for the depletion of a national resource.

#### C. The removal of institutional barriers

In addition to the severance royalty, we recommend the elimination of critical barriers to efficient energy use: outdated federal transport regulations, restrictive home mortgage conditions, utility rates that promote growth, building codes that prohibit efficient technologies, and others. We favor the adoption of minimum efficiency standards for products such as automobiles, air conditioners, and appliances, and mandatory energy labelling of major consumer items. Both efficiency standards and energy labelling will provide market advantages to responsible manufacturers.

We urge the installation of solar technologies on all new government buildings and

the use of "life-cycle costing" in all other major governmental purchases. We also believe that energy impact statements, perhaps prepared as part of more comprehensive environmental impact statements, should be filed for all major federal actions.

#### V. CONCLUSIONS

Energy choices have too often been framed in terms of unsatisfactory trade-offs between inflation and unemployment, environmental damage and economic stagnation, productivity and equity. We believe that the course we have outlined offers an escape from these sterile options. It offers advantages for every constituency: employment for those who most need it, availability of capital for industry, environmental protection for conservationists, worthwhile long-term projects for labor, and opportunities for small business to experiment and for big business to refit. It offers the opportunity to restore the traditional virtues of thrift and community, civil rights and social equity, and decentralization, thereby pleasing the alienated, the liberals and the conservatives alike. The only groups we can identify who would not immediately benefit would be those whose profits and satisfactions are now derived from activities no longer appropriate to changed conditions—those whose reason for being is endless energy growth. Even for such groups, our proposed policy offers an opportunity to divert their much needed resources to the public good.

All citizens of this country would benefit from energy stability, a stronger economy, a cleaner environment, and a healthier democracy. Our nation would benefit from a more robust and resilient position in the world. All future citizens would in their turn benefit by expanded options, conserved resources, and a more humane heritage. Finally, all people abroad would benefit by reduced pressure on scarce fuels, free access to what we learn about wise energy use, and the reduced threat of nuclear violence.

The new administration can offer the American people the old and faded agenda that continues the frantic quest for endless economic growth. Alternatively, it can offer the opportunity to rediscover the ingredients of neighborhood and community, to reverse spiritually eroding effects of unchecked materialism, and to restore a sense of meaningful national destiny. The latter direction will require strong Presidential and legislative commitments to develop a comprehensive, long-term energy policy.

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#### DOWNTOWN SERTOMA CLUB OF SPARTANBURG, S.C.

Mr. THURMOND. Mr. President, last week I had the pleasure and honor of attending a meeting of the Downtown Sertoma Club of Spartanburg, S.C. As you no doubt are aware, Sertoma is an organization of business and professional persons dedicated to helping each other and serving their fellow men. Sertomans are also noted for their exemplary patriotism.

The Spartanburg Sertoma Clubs have a particularly fine group of members. In a society that sometimes seems to be getting increasingly selfish, it is reassuring to spend time with these good men and good citizens. They are constantly working for the benefit of their communities.

One of the worthy projects of the Spartanburg Sertoma Club is an essay contest. High school students in the area are invited to submit original compositions on American history and traditions. This year's winner, Layne McDaniel of Chesnee High School, wrote an analysis of the Declaration of Independence which shows insight and literary attainment far beyond the years of its author.

When I heard this essay read aloud at the meeting, I felt that my colleagues would wish to see it. In order to accomplish this purpose, and to memorialize the happy occasion on which I heard it, I ask unanimous consent that Layne's essay and the program of events be printed in the RECORD.

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

THE DECLARATION OF INDEPENDENCE AS A GUARANTEE OF OUR AMERICAN FREEDOM

(By Layne McDaniel)

When our forefathers drafted the Declaration of Independence, they did more than declare that America should be totally independent. They declared that as citizens of the United States of America, we are entitled to the rights of life, liberty, and the pursuit of happiness.

Our forefathers wanted to insure that we did not escape from the tyranny of one country to become slaves of another country. They wanted their seed to have the freedoms which they had been denied. They also wanted to insure that these freedoms could not be taken from them.

Our forefathers did themselves, and generations to come, a great service by stating in the second paragraph of the Declaration of Independence that "all men are created equal, that they are endowed by their Creator with certain unalienable rights; that among these are life, liberty, and the pursuit of happiness." Each of these freedoms is very important to our lives.

The right to life is one of our most precious liberties. Without the right to life we would wither away and die. This freedom was val-

iantly fought for by our ancestors. Many are still battling for this liberty which we so often take for granted. For a man just to know that he has the right to live is essential to life. For without this knowledge, man loses hope. Once a man has lost hope he cannot live. Without hope man no longer strives to achieve his supreme goal.

To give a man the right to life is not enough. He must be given the right to live his life as he chooses; providing that this is within the laws of God and man. An individual must be given this privilege, because without it his life would be meaningless. He still would not be able to reach his final goal. He would not even be allowed to set his own goal. Perhaps he would be forced into accepting a goal that was not suited to him as an individual. If a person is not an individual he cannot contribute to society in a meaningful way.

Many feel that to give a man life and liberty is sufficient. It is not. These two freedoms by themselves would be only a clever imitation of liberty. Man's emancipation would still be incomplete.

Without the right to pursue happiness, people would become robots. We would be mannequins, with painted expressions, but no real feelings. Man must be allowed to search for joy, and more importantly obtain it, if it harms no one. Government must let man enjoy living, as well as make a living. If man does not enjoy living he might decide to end life. Without happiness life would be a cup of bitter hemlock.

If civilization is to survive all mankind must be given these three rights. He must be allowed to live. Man should be able to set his own goals and work toward them at his own pace, and be allowed to rejoice in his freedom.

**"FREEDOM WEEK" SPONSORED BY THE SERTOMA CLUBS OF SPARTANBURG, S.C.**

Presented by the Sertoma Clubs of Spartanburg: Downtown Sertoma Club (host club), Pat Cecil, President; Greater Spartanburg Sertoma Club, Gene Whitlock, President; Piedmont Sertoma Club, Donnie Woodward, President; Sertoma Club of Spartanburg, Charles Smith, President; South Spartanburg Sertoma Club, Charles Spann, President.

The meeting was held at the Sheraton Inn, Spartanburg, S.C., Friday, February 18, 1977, 12:30 p.m.

**PROGRAM**

Welcome—Pat Cecil, President, Downtown Sertoma Club.

Pledge to Flag—Buddy Womack, Master of Ceremonies.

Invocation—The Rev. David Clyburn.

Meal—Sheraton Inn.

Presentation of Club Presidents—Buddy Womack.

Introduction of Speaker—W. Sterling Anderson.

Speaker—The Honorable Strom Thurmond, U.S. Senator.

Presentation of Awards to School Essay Winners—Pat Cecil.

Reading of Overall Winner's Essay—Buddy Womack.

Adjournment.

**CODE OF ETHICS—SERTOMA INTERNATIONAL**

I affirm my allegiance to my country, and its constitution and believe in its everlasting endurance through law and order.

I believe in The Sertoma Club and its principles of cooperation, friendship and mutual helpfulness.

I pledge myself as follows: To realize that I am a business or professional man ambitious to succeed, but that I am first an ethical man and wish no success that is not founded on the highest justice and morality. To use my greatest endeavor to elevate the standard of the calling in which I am en-

gaged and to conduct myself in such a way that others may find it wise, profitable and conducive to happiness to follow my example. To understand that one of the greatest assets of the business or professional man is friendship and that true friends demand nothing of one another. To abuse the confidence of friendship is unethical and not in keeping with the principles of true cooperation, as adhered to by Sertoma International.

The Sertoma Club exists for the high and noble purpose of benefitting mankind at large. True Sertoma spirit is not competitive. All real Sertomans live up to the belief that true cooperation is not confined to the limits of the Sertoma Club but should extend to the limits of the race itself.

The emblem is a badge of true fellowship, assistance and friendship, and will always stand as an ever-present reminder of the great strength of those united, and the frail weakness of the separated. The Roman fasces ever recalls the ancient lesson of the bundle of faggots which it was impossible to break when bound together, but was easily destroyed when separated. It is the hope that Sertoma clubs be bound closely together in the spirit of cooperation, fellowship and good will in Sertoma International, that they will be an unbreakable power for good, advancement, helpfulness and strength in every community.

Finally, I believe that the dignity and character of industry can be sustained and improved by Sertoma International, to which I fully pledge my support and will so administer my affairs as to reflect credit on this great organization.

**SOCIETY OF ENGINEERS**

Mr. BAKER. Mr. President, my distinguished colleague from Nebraska did the State of Tennessee a great honor last evening. He was the speaker at the annual meeting of the Chattanooga Society of Engineers. Over the years this group has had some of America's most distinguished leaders appear before it.

The remarks of our colleague from Nebraska are on a plane with any who have addressed this forum before him. I want to publically express my gratitude to the senior Senator from Nebraska and respectfully request unanimous consent that his remarks in Chattanooga be printed in the RECORD.

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

EXCERPTS FROM THE REMARKS OF SENATOR CARL T. CURTIS BEFORE THE MEETING OF ENGINEERS AT CHATTANOOGA, TENN., ON FEBRUARY 24, 1977

Mr. Chairman, there is no group on the American scene that I revere more than the engineers. Your profession is an honored one. You play a most important, key role in the industrial greatness of our country. The projects upon our rivers, the erection of industrial plants, the planning for the expansion of industry, and man's walking on the moon are all advances that carry the imprint of the engineer. We could go on and enumerate many other activities wherein the engineer constitutes a vital part of the activity.

Tonight I want to talk to you about some of the public issues vitally affecting our economy. It might be well said that as our economy goes so goes the engineering business. There are some important issues facing the Congress which vitally affect the future of the economy of our great country. I want to touch on a few of those issues.

There are several decisions to be made in reference to labor legislation, which should

be of concern not only to engineers but to all citizens who want business expansion and full employment. A wrong decision in reference to any one of these issues can be injurious to American industry. There are powerful forces at work in the country promoting a course of action which in my opinion would be very harmful to our economy.

First of all, I would mention the bill which would make common situs picketing legal. Under present law if there is a labor dispute on a large project, the picketing must be confined to the area of the employer directly involved. The proposal would permit picketing of the entire project and would interfere with the work of all the employers. It would mean that a handful of workers of one particular employer with a grievance or a claimed grievance could shut down a multimillion dollar project with complete immunity. It should be called "the industrial slow-down bill." It did pass the Congress last year and President Ford vetoed it. It will be a close fight this year. The American people should rally behind those of us in the Congress who are going to oppose the common situs picketing bill and if they do, we could win the fight. We can't expect to be saved by a veto this time.

I believe in the Right-to-Work Law. Such a law exists in a number of States. I do not think any citizen should have to belong to any particular organization in order to work. The States are permitted to have a Right-to-Work Law by reason of section 14(B) of the Taft-Hartley Law. The same forces that are supporting the common situs picketing bill are out to repeal section 14(B), the President has stated that he would sign such a repealer. The Congress is the last battleground if the right of States to enact right-to-work laws is to be preserved. I believe that if the American public knows what is going on, they will become alert and we can win the fight to save our right-to-work laws.

There are other labor issues that should cause concern for all of us. If we follow the statements that have been made by Secretary of Labor Marshall, we have reason to be concerned about the first steps being taken that could lead to the eventual unionization of the members of our Armed Forces. This is unthinkable! It would be disastrous for the defense of our country. Likewise, we are in danger of forcing a situation where the right to strike will be extended to Government employees, including postal employees. Wherever any part of our economy comes to a halt, it isn't good news for engineers.

Congress faces some vital decisions in reference to energy. This is a subject which engineers understand. You know the importance of energy in our economy. A factory cannot run without energy; Production cannot take place without energy. Conservation in the use of energy is not the answer to our energy needs. We should conserve energy as a matter of efficiency and to prevent waste. But the maintenance of jobs depends on the use of energy not the saving of energy.

The Congress has totally failed the American people in reference to energy legislation. Our main objective should be to increase the production of energy.

We should remove the price controls from the production of natural gas. We should restore the incentives for the search and drilling for oil that the majority in the Congress has taken away in the last few years. We should insist upon a balance between our environmental needs and our economic needs. The extreme and emotional environmentalists have done too much to stifle our economy. I hold in my hand a clipping from my State of Nebraska bearing date of February 8, 1977. The headline is "State May Lose 10 Percent of Oil Wells." I will read the first paragraph which is as follows:

"About 10 percent of Nebraska's 1,200 oil wells—producing over 1,000 barrels of oil daily—probably will be closed because of the new U.S. Environmental Protection Agency (EPA) regulations."

The environmentalists should not have that much power.

We should be using more coal. We should use coal for everything where it can be used.

The Union of South Africa is producing about 20 or 25 percent of their gasoline needs from coal. They are doing it without a subsidy. They are expanding their facilities so that in time of emergency they can supply all of their essential needs for gasoline from coal. Why aren't we doing the same thing? We should turn to all the alternate forms of energy. We should proceed with the production of nuclear power, geothermal and solar power.

The majority in Congress has totally failed the American people on energy legislation. We are importing about one-half of our oil needs. Imagine what another oil embargo could do to the defense of this country. Now there is no political division between the administration and the majority in Congress and the American people must and will insist that the Congress develop an energy policy that will make industrial expansion and full employment possible.

Another issue facing the Nation is the excessive spending, ever increasing deficits and mounting national debt. Fiscal responsibility is essential for the economic well-being of our country and the full employment of our citizens. Failure on the part of the Federal Government to bring spending under control can lead to very serious consequences. Disaster is not too harsh a word to describe what could happen if we continue to follow the course that we have followed for the last quarter of a century. We have had only one balanced budget since the fiscal year 1960, and that was in fiscal 1969.

These continuous deficits are most disturbing. They were disturbing when they amounted to \$4, \$5 or \$6 billion dollars a year or less. Americans who are concerned about the future of our country rightly raise the question "where are we headed?" This question is especially pertinent when we find that the deficit for FY 1975 exceeded \$45 billion and the deficit for 1976 exceeded \$66 billion. The deficit for FY 1977 is estimated as \$68½ billion and sometimes at as much as \$70 billion, and certain members of the Carter transition team have been talking of a \$75 billion deficit.

Seldom can you find a Member of Congress or a President who will express opposition to a balanced budget. Their answer is "not yet." There is always an impelling reason for the claim that we cannot balance the budget now. Advisors to Presidents often convince a President that the budget cannot be balanced in his term, but when they get through with their "fine tuning," it will be balanced at the end of four years. Then at the end of four years, we start all over again with a new take-off of astronomical deficits. We should ask the question "where will it end?"

I believe that a great boon to our economy will come when we embark on a continuous course of balancing the budget. If everyone knew that the United States Government had its finances under control it would create confidence at home and abroad. The potential of this country is tremendous. The possibilities are unlimited. I do not believe that private enterprise and self-government are failing theories. I believe that the future can be bright if we reverse that trend toward totally uncontrollable deficit financing.

Is there anything more conducive to investment and the providing of more jobs than the sure knowledge that the Government in Washington was and would continue to follow a responsible course, pay bills and maintain the value of its money?

There can be little dispute that continued deficit financing leads to inflation. Inflation is a cause of unemployment. When inflation is rampant, it takes all of the income of most of our citizens to provide the bare necessities of life for themselves and for their families. In the absence of inflation, wage earners, farmers, businessmen and professional men have sufficient income to buy much more than the bare necessities of life. These additional purchases whether they be carpets, draperies, radios, TV's, furniture, new Houses, additions, automobiles, boats, ski equipment, pianos, music lessons or dental services, set in motion a wide range of activity. It means jobs for more people. It doesn't take a sizeable proportion of our work force to produce the bare necessities of life. Full employment can only come when the people can buy additional items, including luxuries. Every time there is an article sold, it means that someone had to produce the raw material, someone had to manufacture, transport, advertise, sell, finance and insure the article. All of which means economic activity and jobs for individuals of all ages.

A great many of the States have constitutional provisions against deficit financing and the creation of debt. They vary as to form. These provisions in our State constitutions have been responsible in maintaining the solvency of those States. We need a similar discipline at the Federal level.

Twenty-two other Senators have joined me in introducing a proposed constitutional amendment to compel a balanced budget. It is a simple and workable plan. Yet it is firm and effective. It mandates the Congress to balance the budget every year. But it goes further than merely declaring for a balanced budget. It has an enforcing provision. This amendment provides that within twenty days after the close of the fiscal year the President is required to ascertain if there is a deficit—if so, how much? The President is required to calculate the amount of surtax necessary to recoup the deficit in the next fiscal year. This surtax would be an added percentage tax on the income tax of all individuals and corporations. It might amount to a surtax of three percent, or seven percent or twenty percent, whatever the case might be. The surtax would automatically go into effect for the coming year. The President would not be empowered to impose the surtax: the surtax would go in automatically under the authority of the Constitution.

Under this plan the people of the country would know what direction we are headed and the Congress would know it also. Congressmen and Senators wouldn't like an announcement made on or about the 20th day of October that a surtax would have to be imposed on individuals and corporations because the Congress had spent too much money. The adoption of this resolution will bring about the necessary discipline which will lead to a balanced budget. Some programs can be eliminated; others can be postponed. New programs will be looked at more realistically. The question will be asked of all programs—Are they necessary or merely desirable? If the Congress is faced with the choice of reduced spending or increased taxes, expenditures will be reduced. If not, the voters have a remedy at the ballot box.

The resolution provides that upon ¼ vote of both Houses of Congress, the requirements of the amendment could be set aside for a year at a time whenever there was a declaration of war or a finding by the Congress of a grave national emergency. If the war or an emergency extended beyond a year, there would be another vote every year if the requirements of the amendment were to be waived.

I believe in my country and I believe in its future. I am convinced that if we bring spending under control and stop inflation that we will have a future far brighter than

we dare imagine. We should not let the spenders destroy this wonderful country. We should remember that he who saves his country saves all things and all things saved will bless him. He who lets his country die lets all things die and all things dying will curse him. May it be said of our generation by those who follow that we were blessed.

[From the Lincoln Journal, Feb. 8, 1977]

#### NEW EPA REGULATIONS—STATE MAY LOSE 10 PERCENT OF OIL WELLS

(By Harold Simmons)

About 10% of Nebraska's 1,200 oil wells—producing over 1,000 barrels of oil daily—probably will be closed because of new U.S. Environmental Protection Agency (EPA) regulations.

And it will take about \$1 million in improvements for many Nebraska wells to meet the new regulations and stay in operation, said Paul Roberts, director of the State Oil and Gas Conservation Commission.

The EPA regulations govern underground injection of oil field water and are aimed at avoiding contamination of underground sources of drinking water.

Roberts said, however, that EPA can't cite a single instance of contamination of underground drinking water any place in the nation to justify the regulations.

#### CLASSIC OVERKILL

"It's a classic case of environmental overkill," Roberts said. "I asked EPA officials why they were issuing the regulations and they said 'because.' That's all the reason they had."

EPA's fear, Roberts said, is that water injected down well casings will leak out. Meeting the new regulations will require installation of a separate pipe for water injection, he said.

Roberts said there are about 300 wells in Nebraska using the injection system which will require improvements to meet the new regulations. And the cost per well will probably run \$25,000 to \$30,000, he said.

#### NOT ECONOMICAL

But there are also over 100 wells where it would not be economical to try to comply with the new regulations, he said. These wells are now producing over 1,000 barrels of oil a day.

That oil, Roberts said, sells for \$5.25 a barrel, compared to \$15 a barrel for imported Arab oil. That means the production value that would be stopped is around \$5,000 a day.

#### MORE CORROSIVE

In parts of the state where the water is more corrosive, he said, state regulations already require measures to avoid leakage and possible contamination of underground water.

The new EPA regulations will have considerably more impact in the older oil producing states, such as Texas, Oklahoma, Kansas, California and Ohio, Roberts said.

In Texas alone, he said, it is estimated the new regulations will require 10,000 wells to be closed.

The American Petroleum Institute, an industry trade group, estimates the new regulations will cost the oil industry \$406 million and shut off 3.5 billion barrels of oil production because of closed wells.

#### CONSERVATION ENERGY

Mr. PERCY. Mr. President, former Federal Energy Administrator, John C. Sawhill, recently published in the Washington Post an article of great importance to all of us. His topics were energy and the necessity for immediate national action. As a former public official dedicated to helping solve our energy crisis—and this winter has proven once

again how precarious our energy security really is—Mr. Sawhill is experienced and his advice is valuable. His voice should not be left crying unheard and unacknowledged in the wilderness. His admonitions are timely and relevant to our economic growth and stability.

Mr. Sawhill points out how so little has been accomplished since the 1973 oil embargo that imports now account for an ever greater percentage of total U.S. consumption than they did at that time. In 4 years we have actually lost ground in our struggle to become secure and independent in our energy supplies.

This is partly because we have not taken seriously the most efficient, cleanest means of increasing our energy supply—conservation energy. While the United States must continue to research new forms of energy, we must reduce the enormous amounts of energy we waste daily. The effective utilization of our energy supply is so lacking at the present time that we could create vast amounts of energy simply by increasing the efficiency with which we consume energy.

Through tough energy-conservation measures and technologically ingenious methods of eliminating energy waste, the United States could reduce its rate of energy-demand growth to well below 2 percent a year. By reducing demand the United States also can potentially moderate world energy prices. Thus through mature self-discipline and an active national energy policy the United States can begin on a path away from its energy crisis and toward a more secure and healthy future for all its citizens.

The Alliance To Save Energy, which Senator HUMPHREY and I recently launched, is dedicated to promoting the more efficient use of energy. I am delighted that John Sawhill, whose article in the Washington Post prompted these remarks, is on the board of directors.

Mr. President, I ask unanimous consent that the Washington Post article of January 22, 1977, 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, Jan. 22, 1977]  
TOWARD A NATIONAL ENERGY PLAN  
(By John C. Sawhill)

There is a growing national awareness that we face a serious energy problem in both the short and long term. And there is a general consensus that we need a national energy policy to deal with those problems. But turning that consensus into effective action has so far eluded us.

The new administration must move quickly beyond mere rearrangement of boxes on our federal organization chart—one of the few concrete proposals that has surfaced so far. For so little has been done since the 1973 Arab oil embargo that imports now account for a higher percentage of total U.S. consumption than they did then. And our energy conservation program is so ineffective (ranking near the bottom of the list of industrialized nations) that we are missing our best chance of defusing the Arab oil weapon.

The immediate problem is the growing U.S. dependence on oil imports increasingly con-

centrated in the Middle East. The longer-range problem is the need to find alternative sources of energy to sustain the world's economy in the next century when oil and gas supplies are depleted. Unless we solve the near-term problem, our domestic economy and our foreign policy will remain unduly vulnerable to the manipulation by the Arab states, and the mounting debt burdens on the non-oil producing less-developed countries will continue to threaten international financial stability. Unless we solve the longer-range problem, we will have difficulty maintaining a rising standard of living once liquid hydrocarbon reserves are exhausted.

Several critical decisions are called for, the first of which is to establish short- and long-range goals for U.S. dependence on foreign sources for petroleum. A second is to set a target for reducing the growth of energy consumption and to enact a package of tough energy-conservation measures. Somewhat higher fuel prices, coupled with other economic incentives (like tax credits for insulation) and regulatory measures (such as banning nonreturnable bottles), could reduce the rate of energy-demand growth well below 2 percent a year.

One of the most pressing energy issues before Congress is whether the government should continue to regulate oil and gas prices. Opponents of regulation claim that controls encourage consumption, discourage investment in new production, and maintain an unnecessary government bureaucracy. Proponents argue that oil prices have always been regulated de facto—first through production limits set by the Texas Railroad Commission and later through the import-quota program.

If controls were completely eliminated today, the price of oil would not be determined by free market demand-and-supply conditions, but by the OPEC cartel. U.S. oil prices should be as consistent as possible with U.S. economic recovery and energy objectives; it is unlikely, to say the least, that the OPEC managers will act on this criterion. My own view is that complete deregulation is not the best course. The United States must continue to regulate crude oil prices with a view toward keeping our economic engine lubricated, but permit them to rise enough to encourage conservation, new exploration, and the development of new facilities. Petroleum product prices and the price of new natural gas at the wellhead should be deregulated, however, since they will tend to move with crude-oil prices.

The best way to moderate world energy prices is to reduce our import dependency. Beyond this, however, there are other actions that should be explored. One is the possibility of establishing a government agency to purchase some imports (such as those necessary to build an oil stockpile) under a system whereby OPEC suppliers would be required to submit sealed bids for access to the U.S. market as a means of fostering competition among them. The discussion at the recent Qatar meetings suggests that there may be opportunities for the new administration to widen cracks in the cartel, and thereby bring downward pressures on prices.

In addition to prices, a pressing question facing the new Carter energy team is the future role of nuclear power. Reducing our dependency on oil as a primary energy source in the longer term will require much expanded capacity for electrical generation besides an increased role for coal. This means some firm decision on nuclear energy. The current debate on this issue has centered around questions of reactor safety and waste disposal and, as a result, has tended to obscure the more critical issue, which is the problem of weapons proliferation. The key to reducing the proliferation risks is to limit the spread of plutonium until appropriate safeguards are in place.

Fortunately, the U.S. has sufficient uranium reserves to last well into the next century. For this reason, we are in a position to defer the decision on plutonium recycling and on commercialization of the breeder reactor (which uses plutonium) in order to influence foreign suppliers to do the same. Simultaneously, we should work from the other end to persuade potential buyers of these facilities that their benefits are outweighed by the risk of weapons proliferation. Strengthening and broadening the mandate of the International Atomic Energy Agency would help to enforce measures to limit proliferation.

In sum, then, we need serious commitment to a national energy plan. We will be able to measure the seriousness of this commitment by the speed with which proposals are made and decisions are reached on these overall goals. The consequences of continued inaction are grave indeed.

#### NEWBERRY COLLEGE CELEBRATES FOUNDERS DAY

Mr. THURMOND. Mr. President, one of the finest educational institutions in South Carolina is Newberry College. Founded in 1831 under the auspices of the Lutheran church, Newberry College has maintained high standards of academic excellence ever since. Its dedicated staff and stimulating liberal arts curriculum attract able young people from all over the Southeast. The student body now numbers nearly 900.

Newberry College is properly conscious of its long history, and celebrates Founders Day every year. This year there was particular cause for celebration, as the four oldest buildings on campus—Smeltzer Hall, Keller Hall, Holland Hall, and Derrick Hall—have recently been added to the National Register of Historic Places. In addition, a major renovation program, funded partly by grants and partly by a loan secured from the Farmers Home Administration, will shortly be undertaken on Smeltzer Hall.

Because of my interest in Newberry College, and in the recognition and preservation of its historical heritage, I was invited to attend this year's Founders Day ceremonies, which took place on February 17. On that day, I had the privilege of receiving the college's annual Algernon Sydney Sullivan Award, given in honor of the eminent 19th-century lawyer and philanthropist who, while a native of Indiana and a resident of New York, was all his life a Southerner at heart. At the time, I expressed my gratitude as well as I could. It is always an especial honor to find favor with those whom you greatly respect and admire.

It has since occurred to me that my colleagues might wish to know more about Newberry College. Perhaps some of them will be visiting South Carolina and will have a chance to see for themselves the beautiful and historic campus. I can testify that it is well worth a visit. In order to offer an inducement to them, and in recognition of the splendid work done by this fine institution, I ask unanimous consent that the program from the Founders Day ceremonies be printed in the RECORD.

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

FOUNDERS DAY CONVOCATION, FEBRUARY 17,  
1977, 9:25 A.M., WILES CHAPEL

## PROGRAM

Prelude: Chorales for the New Year, Helft  
mir Gott's Gute preisen; Das alte Jahr ver-  
gangen ist; In dir ist Freude, Bach; Thomas  
Spacht, D.M.A., Associate Professor of Music  
and College Organist.

Processional hymn: God of Our Fathers,  
Warren; Dr. Spacht.

(The audience will rise when the proces-  
sion enters and remain standing until the  
conclusion of the Invocation.)

1. God of our fathers, whose almighty hand  
Leads forth in beauty all the starry band  
Of shining worlds in splendor through  
the skies

Our grateful songs before Thy throne arise.

— Interlude —

2. Thy love divine hath led us in the past,  
In this free land by Thee our lot is cast;  
Be thou our Ruler, Guardian, Guide, and  
Stay;

Thy word our law, Thy paths our chosen  
way.

3. From war's alarms, from deadly pestilence,  
Be Thy strong arm our every sure defense;  
Thy true religion in our hearts increase,  
They bounteous goodness nourish us in  
peace.

— Interlude —

4. Refresh Thy people on their toilsome way,  
Lead us from night to never-ending day;  
Fill all our lives with love and grace  
divine,

And glory, laud, and praise be ever Thine.  
Amen.

The invocation: The Reverend Harry  
Weber, M. Ed., College Chaplain.

Choral response: A Rose Touched By The  
Sun's Warm Rays, Berger; Newberry College  
Singers.

Greetings and introduction of special  
guests: Glenn E. Whitesides, Ph. D., Presi-  
dent.

Introduction of speaker: President White-  
sides.

The address: J. Benjamin Bedenbaugh,  
Ph. D., "Person to Person."

Dr. Bedenbaugh is Professor of New Testa-  
ment at the Lutheran Theological Southern  
Seminary, Columbia. A 1950 graduate of  
Newberry College, he received the B.D. degree  
from Southern Seminary and the M.A. and  
Ph. D. degrees from Boston University. Dr.  
Bedenbaugh wrote the College's Centennial  
History in 1956, a project which was begun  
by his uncle, J. Holland Bedenbaugh, in 1930.

Special music: Now Let All Sing, Kirk,  
Newberry College Singers and Instrumental  
Ensemble, Milton W. Moore, Ed D., Director,  
Darr Wise, M. Mus., Piano.

Newberry College Student Association project:  
Keith Shealy, President, NCSA.

For the third consecutive year, NCSA is  
participating in the Founders Day celebra-  
tion through the planting of flowering trees.  
To complement the Japanese Cherry tree  
planted in 1975 and the thirteen Dogwood  
trees planted last year in honor of the college  
presidents, three additional Japanese Cherry  
trees have been planted in the Campus  
Quadrangle area around Smeltzer Hall. The  
trees are in memory of Mrs. Helma "Mom"  
Reeves, Col. James Holcombe, and Dr. Frank  
Hoskins.

Conferring of Honorary Degrees: President  
Whitesides.

The President will be assisted by the Vice  
President for Academic Affairs, Dr. B. Lee  
Cooper, and The Secretary of the Faculty,  
Professor Margaret Paysinger.

Doctor of Divinity: The Reverend Albert  
Stemmermann.

Albert Stemmermann is a beloved pastor of  
the Lutheran Church in America, having  
served in pastorate and other church posi-

tions in South Carolina, Ohio, and Michigan.  
Retired from a life of full service, he is still  
active as the volunteer Chaplain for the  
Franke Home, a Lutheran retirement center  
in Charleston. Pastor Stemmermann, as a  
servant of the Church, is a symbol of the  
Church's role in the history of the College  
that dates back to 1828, nearly 30 years be-  
fore the College was actually chartered as a  
degree-granting institution in 1856.

Doctor of Humane Letters: Edwin F.  
Averyt.

Edwin F. Averyt is a prominent business-  
man and church leader who has expressed  
his strong interest in private higher educa-  
tion and in the goals and objectives of New-  
berry College. An active member of the Col-  
lege's Board of Trustees, he has supported  
the College's total program with his time,  
talent, and wisdom. On this special day of  
celebration, he stands as a symbol of business  
and industrial leaders who have contributed  
to Newberry's development.

Presentation of the Algernon Sydney Sul-  
livan Award: President Whitesides.

The President will be assisted by Dr.  
Cooper and Dean Traylor.

Honoring: Senator Strom Thurmond.

Strom Thurmond, the distinguished senior  
Senator from South Carolina, has been a  
long-time friend of Newberry College. He  
was one of the guiding forces in the naming  
of the College's four oldest buildings to the  
National Register of Historic Places, and he  
has been instrumental in helping to secure  
the necessary funds for the renovation of  
Smeltzer Hall. A frequent visitor to the  
campus, Senator Thurmond is highly re-  
spected and much appreciated for the many  
ways in which he has shown his support and  
interest in private higher education and in  
Newberry College.

Response: Senator Thurmond.

Closing Remarks: President Whitesides.

## Alma Mater

Though small nor rich in worldly goods,  
Our Alma Mater dear,  
We bless thy name, fresh crowned with fame  
In every passing year.

Oh Newberry, we pledge to thee  
Our hearts and hands this day;

Our love, our faith, our loyalty,  
Hail Scarlet and the Gray.

Our love, our faith, our loyalty,  
Hail Scarlet and the Gray.

When years have passed and college days  
Become but memories,

Though far or near we'll all hold dear  
Thy name, thy victories,

Where'er we go, come weal or woe,  
For thee we'll work and pray,

Thy loyal sons we'll ever hail  
The Scarlet and the Gray.

Thy loyal sons we'll ever hail  
The Scarlet and the Gray.

Recessional: Finale (Symphonie 1):  
Viernes.

A Reception will be held in the Summer-  
land Reception Room, Smeltzer Hall, imme-  
diately following the convocation program.  
Everyone is cordially invited.

Members of the Cardinal Key National  
Honor Sorority are serving as ushers.

## THE ACADEMIC PROCESSION

## The Order

Academic protocol sets specific guidelines  
for an academic procession. Tradition de-  
mands that the President be the last person  
in the procession and that he lead the pro-  
cession following the ceremony. The highest  
ranking members of the Faculty, including  
Faculty and Administrators Emeriti (based  
on rank and seniority) lead the procession  
and follow the President and the platform  
party in recessing.

The college's four vice presidents (those  
who are not in the platform party) lead the  
Administration group: and the Newberry

College Student Association Executive Offi-  
cers lead the NCSA Senate.

## The Academic Regalia

Academic dress in the United States gen-  
erally conforms to a code adopted by col-  
leges and universities at the end of the nine-  
teenth century. Theoretically, the costume  
indicates the subject field, the highest de-  
gree held by its wearer, and the university  
which granted that degree. The standard  
gown is black, although a few institutions  
have adopted gowns in special colors. Pat-  
terns vary with the degree held. The doctor's  
gown is cut much fuller than the other  
gowns and is marked by velvet panels down  
the front and around the neck, as well as  
by bars of the same material on the sleeves.  
The facing and chevrons of the doctor's gown  
may be black or the color which symbolizes  
the subject in which the degree was earned.

The hood is lined with the colors of the  
university which granted the degree. The  
border or edging of the hood is in the color  
indicating the subject of the degree.

Arts, Letters, Humanities—white.

Commerce, Accountancy, Business—drab.

Economics—copper.

Education—light blue.

Fine Arts—brown.

Journalism—crimson.

Library Science—lemon.

Music—pink.

Philosophy—dark blue.

Physical Education—sage green.

Science—golden yellow.

Theology—scarlet.

## The President's Gown

The President's Gown, designed by Ward  
and Company expressly for the College, uses  
the College colors of scarlet and gray. It was  
used for the first time at last year's Found-  
ers Day/Inauguration program.

## Student Marshals

Student Marshals are chosen for their aca-  
demic achievement; they represent the high-  
est scholastic attainment in their respective  
classes.

Senior Class: Jan E. Burrows, Jo Ann  
Carrie, Ireleou Easley, Keith D. Shealy, Robert  
W. Wingard.

Junior Class: Joy Abel, Steven E. Davis,  
Mary R. Williams.

Sophomore Class: Mark M. Murray, Sharon  
A. Risinger, Kelly Shealy.

Freshman Class: F. Christine Bernhardt,  
Jane Brown, Richard M. Pritchard, Kathy L.  
Williams.

## Faculty Marshal

James F. Cummings, Ed.D.

## THE NEWBERRY COLLEGE HISTORIC DISTRICT

The four oldest buildings on the campus  
form the newly created Newberry College  
Historic District and will be listed in the  
National Register of Historic Places.

The quartet of buildings are typical of the  
late 19th and early 20th century institutional  
architecture. Smeltzer Hall (completed in  
1877) is the focal point of the new Historic  
District; other campus buildings in the Dis-  
trict include Keller Hall (1895); Holland  
Hall (1904); and Derrick Hall (1924).

The National Register of Historic Places is  
the official list of the Nation's cultural re-  
sources worthy of preservation; it is under  
the responsibility of the National Park Ser-  
vice of the Department of the Interior.

## Smeltzer Hall

Smeltzer, an Italianate Victorian structure,  
was built in 1877 on the site of the original  
building when Newberry College returned to  
Newberry after being in Waihalia, S.C., for  
nine years after the Civil War.

The original building, completed in 1858,  
was razed after the War and after the College  
had moved to Waihalia because of the dam-  
age done to the building by the Federal  
troops that used the building as its head-

quarters during the occupation of the City of Newberry.

Today, Smeltzer is the freshman women's residence hall and serves as the reception area for campus social events. Named for the third president of the College, Dr. J. P. Smeltzer, the 100-year-old building will be completely renovated in time for the opening of the 1978-79 academic year.

#### Keller Hall

Another Victorian structure, Keller Hall, was constructed in 1895 partially from funds donated by Mrs. F. E. Keller of Haigler, S.C., in memory of her son, J. Aiken Keller, who died in 1884 while a student at Newberry.

The two-story brick building with a bell tower has been used as a chapel, library, and classroom and laboratory facility in the past 80 years. Today it houses the offices of the student publications and the student government, provides storage space for the campus theatre costume shop, and space for a dance studio.

The bell in the old tower is still rung to announce athletic event victories.

#### Holland Hall

Holland Hall, a neo-classic revival brick structure with four Roman Ionic columns, was built in 1904 partially from funds appropriated by Congress to repay the College for damage done to the original College Building by Federal troops after the Civil War. The commanding officer of the Federal troops, Brigadier General Charles Van Wyck, garrisoned in the old building, was a member of Congress when the funds received Congressional approval.

Holland, named for Dr. George D. Holland, the college's fourth president, is the present administration building although classes also met in the two-story structure until the early 1970's. The building was remodeled and renovated in 1972.

#### Derrick Hall

The fourth building in the Newberry College Historic District is Derrick Hall, a three-story Classic Revival building with four Ionic columns; it was built in 1924 as a men's residence hall. It was renovated in 1965 for use as a women's dormitory.

The dormitory was constructed during the presidency of Dr. Sidney J. Derrick, Newberry's eighth president, for whom the building is named.

The Newberry College Historic District is one of two Districts in Newberry County and one of 31 in South Carolina. The other Newberry County District is the Community Square in Newberry.

#### SMELTZER HALL RENOVATION TO BEGIN IN LATE SPRING

The renovation of Newberry's oldest building, Smeltzer Hall, which serves as a residence hall for freshman women and as the reception area for the campus, is scheduled to begin in late May.

When work is completed in 1978, the inside of the building will have a new look—with new wiring, heating, plumbing, and air-conditioning. But, the outside of the Victorian structure and the reception rooms and public areas will remain basically unchanged to remind Newberrians of the 100 years of Newberry College history that Smeltzer Hall has helped to make.

The College's Board of Trustees and three supporting Synods have authorized a \$500,000 loan from the Farmers Home Administration for the renovation project. An additional \$50,000 has been designated for the project from foundation grants and individual gifts; and a \$50,000 challenge gift has been made available from the Kresge Foundation—if the last \$100,000 is raised to complete the \$700,000 renovation cost.

In October, the Board of Trustees authorized a special campaign to raise these additional funds. Recognizing that Smeltzer Hall

has been a women's residence for almost half a century and would continue to house women and to serve as the campus reception area, ladies asked for the privilege of raising these funds. With Mrs. Gaines O. Boone as chairman, these Ladies for Smeltzer hope to enlist 100 "Smeltzer Belles" who by their own contributions or through solicitation will provide \$1000 each toward the \$100,000 needed.

Gifts and pledges amounting to over \$40,000 have been received through the efforts of 66 Ladies for Smeltzer, 26 of whom are already "Smeltzer Belles" through the \$1000 or more each has contributed or solicited.

#### "Smeltzer Belles"

(As of February 11, 1977)

Mrs. Edwin F. Averyt.  
Mrs. Hugh Baumgartner.  
Mrs. Gaines O. Boone.  
Mrs. Herman Boozer (in memoriam).  
Mrs. Martyn Cavanaugh.  
Mrs. John Clarkson.  
Mrs. Noah E. Derrick.  
Mrs. Milton Frick.  
Mrs. Deems Haltiwanger.  
Mrs. Chester Hawkins.  
Mrs. Harrison Jenkins.  
Mrs. Hart Kohn, Jr.  
Mrs. Hal Kohn, Jr.  
Miss Erin Kohn.  
Miss Nell Kohn.  
Miss Hattie Belle Lester.  
Mrs. C. E. Mitchell.  
Mrs. Esther S. Pruett.  
Mrs. George Rast.  
Mrs. George Segelken.  
Mrs. Armand Shealy.  
Mrs. Otho Shealy.  
Mrs. George W. Smith.  
Mrs. H. A. Strickland.  
Mrs. Fred Wessels, Jr.  
Mrs. C. I. Youmans.

In addition to the "Smeltzer Belle" campaign, the Newberry College Women's League is soliciting funds among its membership, and the College's Faculty Women's Club is sponsoring several money-making projects to contribute toward decorating the reception parlors in antique furniture and decorative pieces.

#### PRIVATE FIRM DOMINATES PROCESSING OF MEDICARE/MEDICAID CLAIMS

Mr. PERCY. Mr. President, I would like to call attention to an excellent series of articles on health care in the United States, written by Mr. Curt Matthews of the St. Louis Post Dispatch and syndicated nationally.

With extensive documentation and his usual attention to detail, Mr. Matthews points out a serious threat to our system of health care—the danger that a single, private computer firm may, over the next few months, attain a near monopoly position in the administration of the Federal medicare and medicaid programs.

This firm, the Electronic Data Systems Corp.—EDS—of Dallas, already processes around 20 percent of all claims under these two programs, while no other private company handles as much as 1 percent of this total. If, as appears likely, EDS succeeds in its bids for the management of medicaid programs in New York, Pennsylvania, and Massachusetts, its share will swell to 43 percent. In addition, around 15 other States will solicit bids on such contracts within the next year; if its successes continue, EDS will consolidate its dominant market position

by the year's end. Such a development would tend to stifle the competitiveness of the medical claims processing industry, which one industry executive termed "the fastest growing segment of the data processing industry."

Recently, EDS has begun moving beyond the simple processing of claims and into the actual management of medicare/medicaid programs, thereby increasing the potential for conflicts of interest between these two functions. For example, as fiscal agent for Texas' health care programs, EDS controls the approval of the claims the firm itself must pay through its insurance subsidiary. Clearly, the fewer claims it approves, the more it stands to make through its insurance operations.

Likewise, in Tennessee, EDS can influence the effectiveness of these programs—and, potentially, its own profitability—by determining the complexity of claim-filing procedures, establishing the usual and customary charges for the medical services covered by the programs, and determining the amount of documentation required for reimbursable claims.

Far more important is the need to insure that control of these two programs, which collectively provide medical care for one-fourth of the U.S. population, remains in the hands of the public and its representatives at all levels of government. The authority to make decisions of the sort EDS is empowered to make in Tennessee properly belongs in the public domain, and open to public scrutiny. I am deeply concerned about the delegation of such broad responsibility to a single private company, particularly one with such market-dominating power.

Until recently, there were several vigorous competitors in the claims-processing field. Now, some are exiting from the market.

The sheer size of EDS discourages some from even submitting bids on many contracts, particularly those encompassing entire statewide health care systems. Such contracts are tailored to firms of considerable size and diversity. Even more discouraging to potential competitors than the trend toward larger and more comprehensive contracts are instances where contracts may have been awarded to EDS despite lower bids by other data processors.

The Senate Permanent Subcommittee on Investigations, of which I am ranking minority member, has been looking into this matter for some time. Senator SAM NUNN, who has been outstanding as acting chairman of the subcommittee, and has now been designated as vice chairman and I will continue this inquiry into questionable practices in the awarding of contracts to private firms for computer and management services. We have been greatly aided in this effort by the painstaking and conscientious work of Mr. David Vienna, an accomplished investigator for the subcommittee. I am confident that he will continue his excellent inquiry into this area in the days and weeks ahead.

Mr. President, I ask unanimous consent that Mr. Matthews' articles appearing in the St. Louis Post-Dispatch on

January 29, February 2, and February 4, 1977, be printed in the RECORD.

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

TEXAS FIRM MOVING INTO POSITION TO CONTROL U.S. HEALTH CARE

(By Curt Matthews)

DALLAS, TEX., Jan. 29.—A Texas computer company known for its efficient but often secretive style is moving quietly into position to dominate health care in the United States, much as American Telephone and Telegraph Co. now dominates communications, the Post-Dispatch has learned.

Officials in Washington and elsewhere have expressed concern that the company, Electronic Data Systems Corp. (EDS), could evolve into the only firm in the U.S. with the experience and the technology to run a multibillion-dollar government health care program that Congress is expected to approve next year.

Operating out of headquarters in Dallas, EDS already has won contracts to do a substantial share of the processing of claims for the Federal Government's Medicare and Medicaid programs. In recent months the company has expanded and changed its operations to take on management responsibilities for some Medicaid programs.

Government officials say that EDS may soon exercise management control over nearly 50 percent of the Medicaid program, which in 1976 provided health care for more than 23,000,000 poor persons as a cost to the Government of 14.7 billion dollars.

The company currently has a bid pending for a contract to join with Blue Cross and Blue Shield to manage the claims processing of Medicaid in Massachusetts. The company also is expected to bid soon on a contract to process drug claims under Medicaid in Pennsylvania.

According to well-informed Government and industry sources, EDS also appears to be the prime contender—or in the words of one Government official, "the only viable competitor"—for the contract to run the 3-billion-dollar Medicaid program in New York.

Officials in New York issued a formal request for bids last Monday, asking that bidders be prepared to act as "fiscal agent" for the New York program.

If EDS is successful in New York, Pennsylvania and Massachusetts, the company would have key management responsibility for about 43 percent of all the claims submitted under Medicaid program, according to figures supplied by individual state agencies and the Department of Health, Education and Welfare.

Electronic Data Systems was founded in 1962 by H. Ross Perot, who at the time was a 31-year old computer salesman for IBM Corp. Perot, a graduate of the U.S. Naval Academy, is now chairman of the company. EDS reported revenue of \$132,952,000 for the year ending last June.

About 20 percent of all claims submitted by doctors and other providers of medical care under the Government's two major health care programs, Medicaid and Medicare, are being processed by the firm, the Post-Dispatch has learned.

No other commercial company processes as much as 1 percent of the total claims generated by the programs.

EDS got its start in the health care industry and has largely confined its operations to that business for 14 years. However, the company has recently obtained contracts to assume full management responsibility for Medicaid in five states.

Going one step further, the company has assumed the "risk" of providing health care under a \$750,000,000 insurance plan covering Medicaid recipients in Texas.

The remarkable success that EDS has had in recent months in obtaining Medicaid management contracts concerns Government officials for several reasons:

—Competitors for the contracts are rapidly withdrawing, convinced in some cases that EDS is so well entrenched in the health care management business that only small or marginally profitable contracts will go to other firms.

Before the end of this year, 15 to 20 more states will seek bids on contracts to run their federally funded health care programs. If only one company appears as a strong contender for this business, a near monopoly could develop in the management of government health care.

State and federal officials agree that companies exercising management responsibility over government health care programs can greatly influence the cost, structure and ultimate effectiveness of such programs. A single dominant company could largely determine the quality of health care for the proposed national health insurance program, now under congressional consideration.

The Senate's permanent subcommittee on investigations has started investigating the way private firms are running the various government-funded health care programs and competing to get contracts for this business.

EDS is one of several companies involved in the inquiry, but there is no evidence that the company acted illegally in obtaining its dominant share of the Government's health care management business.

Morton H. Meyerson, a vice president of EDS and a member of the board of directors, rejected the idea that the company's success thus far would lead to its dominating government-funded health care programs.

"Any fears that we will be the only viable competitor for this business are not well founded," Meyerson said. "As more publicity is focused on the market situation, then naturally other firms will jump in to compete."

Meyerson drew a sharp line between the administration of a government-funded health program and the actual delivery of medical services under such programs.

"We are not chartered to deliver health care," he said, "only to administer the programs. I don't see how we get involved in social aspects of it and I don't think we should."

Meyerson said EDS had competed openly and fairly to obtain Medicare and Medicaid contracts and subcontracts and that, given the company's excellent performance and unusually long experience with the two programs, EDS should be expected to "be a very strong competitor." He said that 25 other bidders also had sought the last six contracts that EDS bid on.

Reflecting on the company's role, Meyerson said, "so long as the net result is a lower cost of administration in these programs and better service to both providers and recipients of health care, then how can our activities be construed to be bad? We are actually improving the situation."

Staff investigators for the permanent subcommittee on investigations say the Government is spending about 1.5 billion dollars a year to process claims under the Medicaid, Medicare and the health care programs for military families.

At a subcommittee hearing last September, the subcommittee chairman, Senator Sam Nunn (Dem.), Georgia, said "The contractors who will win the Medicaid management information system contracts and operate the Medicaid computer programs will most likely be the computer service firms for any national health insurance plan."

Since then, EDS has been awarded: A \$4,313,000 contract from North Carolina

to manage that state's Medicaid program for 18 months beginning Jan. 1.

A \$9,500,000 contract in Tennessee, also effective Jan. 1, to manage that state's Medicaid program for the next three years.

A \$750,000,000 contract in Texas, effective Jan. 1, to be administrator, claims processor and insurance carrier for Medicaid in Texas over the next 32 months.

About \$50,000,000 of the Texas contract will cover administration of the program, with the remaining \$700,000,000 paid by the state to an EDS insurance subsidiary in the form of premiums for health insurance covering the state's 700,000 Medicaid recipients.

By forming an insurance subsidiary—chartered in Texas Dec. 30 under the name "National Health Insurance, Inc."—Electronic Data Systems has been able for the first time to obtain a contract that fully encompasses the profit potential of the Medicaid program.

In addition to the nearly \$17,000,000 a year that EDS will earn under the Texas contract as a "management fee" and for processing claims, the company could earn \$1,000,000 to \$2,000,000 more a year on its insurance operation.

A conservative rule of thumb within the insurance industry holds that health insurance companies can expect to make 1 percent net profit on premium income if the number of claims does not greatly exceed the projected number of claims.

Some of the firm's competitors have been unwilling to take on the management and insurance responsibilities of the Medicare and Medicaid programs, contending that there are built-in conflicts of interest.

In Texas, for example, EDS, will be able to control approval of claims that its insurance subsidiary may eventually be required to pay under the Medicaid program. The fewer claims approved for payment, the more the company stands to make through its insurance operation.

In addition to Texas, North Carolina and Tennessee, EDS has obtained contracts or subcontracts for managing the Medicaid program, or for processing claims generated by that program, in Alabama, California, Idaho and Washington.

Annual revenues generated by the Medicaid contracts are estimated at \$40,000,000, based on information supplied by HEW, the agency that monitors state administration of the Medicaid program.

In addition, EDS is responsible for processing claims under the Medicare program run by the Social Security Administration in eight states, including California, Massachusetts and Ohio. These contracts produced about \$57,500,000 in revenue for EDS last year, according to quarterly reports issued by the Social Security Administration.

Throughout the first 10 years of the Medicaid program, the role of "fiscal agent" or program administrator at the state level has been filled primarily by state welfare offices or by various nonprofit health insurance organizations such as Blue Cross and Blue Shield.

Electronic Data Systems was granted its first contract as a fiscal agent for a state Medicaid program in the state of Washington late in 1975.

HEW officials and others at the state level say that companies that manage government-funded health programs as fiscal agents can greatly influence the cost and structure of such programs, as well as the quality of health care delivered.

For example, as fiscal agent for the Medicaid program in Tennessee, EDS will be allowed to:

Set the practical limits on how much care is provided under the program by establishing procedures that each doctor must go through to receive payment for treatment of a particular illness.

Control the cost effectiveness of the program by establishing in co-operation with medical care providers the "usual and customary" charges for medical procedures that will be reimbursed under a state's health care program.

Reduce or encourage fraud and abuse, depending on how tightly a program is run and the quality of documentation required before claims are reimbursed by the Government.

Determine the number and professional competence of doctors participation in the program by the attention given to "provider relations," by the amount of paperwork required for processing a claim and by the promptness of payment.

Act as a clearing house for complaints about the program from doctors and patients and in such a role greatly influence government decision-making about the allocation of public funds to support the program.

Staff members of the Senate's investigating subcommittee said this week that the committee planned to conduct public hearings early this year that would focus on EDS and other companies with contracts to manage government-funded health programs. The hearings, originally scheduled for next month, have been delayed by the Senate's reorganization of its committee structure.

#### FASTEST GROWING U.S. INDUSTRY

Providing and administering health care has become the fastest growing segment of the national economy, accounting for 8.3 per cent of all goods and services produced in the United States.

The cost of health care has increased 300 per cent over the last ten years. Americans are spending about 118.8 billion dollars a year for doctors, clinics, nursing home care, hospital care and medicine.

The medicare program was approved by Congress in 1966 to provide hospital and doctor expenses for persons over 65 years old. Essentially, it is an extension of the Social Security program. About 24,000,000 persons claimed benefits under the medicare program last year, requiring government outlays of about 17.8 billion dollars. In 1967, the medicare program cost 4.7 billion dollars.

The medicaid program, approved by Congress in 1965, pays hospital and doctor expenses for poor persons. Essentially, it is a co-operative state-federal welfare program with the Federal Government paying 50 per cent of the program costs and up to 90 per cent for program development costs at the state level.

The increased federal participation in the financing of programs to approve administration of medicaid at the state level is intended to be an incentive for state governments to adopt management procedures that will control fraud and abuse.

About 23,000,000 poor persons received assistance under medicaid last year at a total cost to the government of 14.7 billion dollars. In 1966, the medicaid program cost 1.7 billion.

Taken together, the medicare and medicaid programs provided some form of medical care to nearly one fourth of the U.S. population last year.—CURT MATTHEWS

[From the St. Louis Post-Dispatch,  
Feb. 2, 1977]

#### MEDICAID RULES FAVOR SINGLE CLAIMS HANDLER (By Curt Matthews)

WASHINGTON, Feb. 2.—Specifications established by federal and New York state officials appear to have virtually assured that a Texas computer company will receive a multimillion-dollar contract to process medicaid claims in New York, the Post-Dispatch has learned.

The firm, Electronic Data Systems Corp. (EDS) of Dallas, already is beginning to dominate the field in winning contracts to process claims for the Government's major health care programs. Specialists in the computer field say requirements to handle the New York medicaid program—by far the largest in the nation—call for a management system and establish a time frame that appear to favor EDS over other potential bidders.

Procedures dictated by state and federal officials for bidding on the New York contract are highly unusual, partly because of the size of the program and the pressure of the welfare system on the state's precarious financial position.

There is no indication that the officials acted intentionally to help EDS, a firm that already processes about 20 per cent of all claims generated throughout the United States by the medicaid program.

However, the situation illustrates the company's growing dominance in the administration of Government-financed health care programs, say Government officials concerned about the way such programs are being managed.

The Post-Dispatch reported Sunday that officials in Washington and elsewhere were concerned that EDS was rapidly moving into a position that would allow it to dominate health care in the United States the way American Telephone and Telegraph Co. now dominates communications.

Information gathered from various Government and industry sources suggests that, if current trends continue in the management of Government health-care programs, EDS will soon be processing about 50 per cent of all medicaid claims and more than 20 per cent of all claims submitted by doctors and other providers under "Part B" of the medicare program.

Together, the medicaid and medicare programs cost more than 30 billion dollars a year and provide some form of medical care to nearly one-fourth of the U.S. population.

At the federal level, Electronic Data Systems was given a strong boost in the competition for the medicaid claims-processing contract in New York when the state's Department of Health, Education and Welfare "mandated" that a fiscal agent be hired to run the program.

Harold F. Weinberg, an associate administrator in the Social and Rehabilitation Service at HEW, which monitors the medicaid program, said his office "strongly recommended" that New York use an outside contractor to run its medicaid program because experience had shown that the state was incapable of running it.

Employees at HEW familiar with that agency's monitoring of the medicaid program can recall no instance other than New York where the Federal Government forcefully suggested that a state not run its own program.

EDS is said to be the only major computer service firm in the United States with experience as a fiscal agent for a state medicaid program and the technology and financial stability to assume management of the massive New York State program.

Sources in the computer processing industry and in Government have described EDS as "the only viable competitor" for a contract to serve as fiscal agent for the medicaid system in New York.

The size and complexity of the medicaid program in New York could automatically eliminate many companies from assuming management responsibility for the program.

More than 25 per cent of the Federal Government's total expenditures under the medicaid program go to New York. The Government's inability to control the program is demonstrated by the lack of statistical information about it. For example, no one

knows how many claims are being filed under the program each year or precisely how much is being lost through waste and fraud.

A report issued last September by Richard V. Horan, New York's welfare inspector general, estimated that \$550,000,000 had been drained off the medicaid program in New York in 1975 through fraud and abuse.

Medicaid cheaters are not primarily poor, lower-class persons too lazy to work, Horan's report suggested. Instead, the cheaters are more likely to be professional medical people who have learned how to collect money for services that were not provided, it said.

Doctors, hospitals, nursing home operators and pharmacists stole more than twice as much more from the medicaid system in New York last year as those claiming health care benefits under the program. Horan's report said.

The doctors and similar "providers" of health care cheated the medicaid system of about \$250,000,000 in 1975, the report said. Improper payments to persons claiming eligibility under the medicaid program amounted to about \$100,000,000.

Money to run the medicaid program is channeled through federal, state and local agencies—but it all comes from taxes. The Federal Government pays 50 per cent of the medicaid program in New York, and the state and county welfare agencies each contribute 25 per cent of the program's total cost.

At the state level, officials in New York have helped the chances of EDS in winning the contract to manage the state's medicaid program by establishing a tight timetable for getting a program management system in operation.

The initial request for proposals to run the program was distributed on Jan. 24. The state has called for final bids on the management contract within 30 days and a workable system to begin processing claims in New York City by November.

State and federal officials agree that the urgency in getting control of New York's wayward medicaid program is directly related to the serious financial crisis faced by that state, particularly the exploding welfare costs in New York City.

The request for bids to run the medicaid program in New York notes that over the last 10 years the costs of the program have risen to more than 3 billion dollars from \$400,000,000 a year.

The bid request document states, "The sooner a medicaid management information system was available in New York State, the greater would be the cost-saving accrued . . ."

According to those familiar with practices in the computer industry, it is highly unusual to permit only 30 days for the preparation of final bids on a computer system as complex as New York's.

Government and industry sources contend that only a company with considerable experience in the medicaid program and ready resources to focus on the New York contract will be able to meet the time constraints established by state officials.

"Unless somebody is walking around with a system in his back pocket, there's no way a company is going to come up with one in 30 days," said a marketing representative for a computer company whose executives are undecided about whether to bid on the contract.

"The only company with a system in its hip pocket is EDS," he said.

Michael Diem, a deputy commissioner in the state office of social welfare and director of Medicaid Information Systems in New York, said last week that he expected "eight or nine" bids on the contract to run the state's medicaid business, including EDS.

An industry source told the Post-Dispatch that state officials had drawn up a list of

prospective bidders but aside from EDS, only two have experience at managing a state medicare program. They are the Computer Co. of Richmond, Va. which acts as fiscal agent for the program in Virginia, and Health Applications Systems of Burlingame, Calif., the fiscal agent for the Arkansas program.

Health Applications Systems is reported to be in a weak financial condition, a factor in the firm's recent lack of success in bidding on Government contracts.

The firm lost out to EDS last fall in bidding to operate the medicare program in Texas. Sources within the company say that nothing has happened since then to improve its financial stability.

The firm recently defaulted on a contract to run the medicare system in North Carolina and has been replaced there by EDS.

Both Government and industry sources agree that the Computer Co. does a good job of running the medicare program in Virginia, but they point out that the New York program is much larger.

About 5,600,000 medicare claims are processed each year in Virginia. The company that assumes management responsibility for the New York system will be required to process that many claims in 19 days.

"There's not much margin for error or breakdown," says Stuart Patterson, a former New York State medicare official now working in the same program in Michigan. "If you miss three days of claims processing, you're blown right out of the water. You can never catch up."

Executives at the First National City Bank of New York, apparently sensitive to the need for some medicare program experience in trying to manage the New York program, reportedly have met with representatives of two computer firms to discuss the possibility of a co-operative bid on the New York contract.

However, both companies—the Computer Co. and Optimum System Co., which holds a contract to process medicare claims in Connecticut—were reportedly rejected by the bank as partners.

Sources within the Department of Health, Education and Welfare, reluctant to be identified as critics of the decisions of their superiors, say HEW may have overstepped its authority in requiring the State of New York to turn over management of its medicare program to the private sector.

On Nov. 23, former Undersecretary Marjorie Lynch wrote to Gov. Hugh L. Carey of New York and said, "We believe it is in the best interest of New York State to contract with a fiscal agent since the problems are much broader than merely the lack of adequate automated systems."

Mrs. Lynch, who was appointed to the job at HEW by former President Gerald R. Ford and has since left office, noted in her letter that unless the entire program in New York was placed up for bid the state would "discourage some of the highly qualified potential contractors."

Industry sources and Government officials who monitor the various state medicare programs disagree with that view and contend that more bidders would have been drawn to compete for the medicare management contract if responsibilities for various parts of the New York program were split into more manageable segments.

An indication of the intensity of bidding on the New York contract will come tomorrow in Albany, the state capital, when a bidders' conference is scheduled. Those attending the conference must submit letters to the state expressing an intention to bid on the system.

[From the St. Louis Post-Dispatch, Feb. 4, 1977]

#### TEXAS FIRM FAVORED—HEALTH CARE LOW BIDS FAIL

(By Curt Matthews)

WASHINGTON, February 4.—Although it has been underbid repeatedly, a Texas computer firm has become so proficient at winning contracts to manage the Federal Government's major health-care programs that some of its prime competitors have stopped bidding for such awards.

The firm, Electronic Data Systems Corp. (EDS), of Dallas, has won contract after contract, worth millions of dollars although its bids frequently have been well above those of its competitors.

Federal investigators found on one occasion that EDS had been favored unfairly over other bidders for a medicare claims-processing contract in Ohio and West Virginia. At least three suits have been filed by competitors who lost to EDS on lucrative medicare contracts despite having submitted lower bids.

Executives of other firms have complained to Congress that they have found it extremely difficult to win a medicare or medicare bid award when EDS is a competitor and have called for controls over the bidding process. Executives have protested also that bidding procedures are structured to favor EDS.

EDS spokesmen attribute their success to a highly professional approach and early entry into the business of managing Government health-care programs.

The Post-Dispatch reported Sunday that officials in Washington and elsewhere were concerned that EDS was rapidly moving into a position that might soon allow it to exercise near monopoly influence over administration of Government health-care programs in the United States.

EDS now processes about 20 per cent of all claims submitted by doctors, pharmacists and other providers of medical care under the medicare and medicare programs. No other commercial company processes as much as 1 per cent of the total claims.

Executives of competing companies say they have lost out to EDS despite putting forward what they consider the strongest possible proposals at costs far lower than offered by EDS.

McDonnell Automation Co., a subsidiary of McDonnell Douglas Corp. of St. Louis, is among the companies apparently forced from the competition to provide data processing technology and management skills for the Government's health-care programs.

Three years ago, McDonnell Automation Co. was looked on by Government officials and industry analysts as a major competitor for the 1.5-billion-dollar-a-year data processing business that the medicare and medicare programs were expected to generate.

"We're not going after that market anymore," a spokesman for McDonnell Automation Co. now says.

The McDonnell spokesman refused to explain why the company's data processing subsidiary was passing up a billion-dollar-plus data processing market. He said only that "no one in the company wants to talk about it."

Other sources in the data processing industry told the Post-Dispatch that McDonnell Automation's inability to compete with EDS was a prime factor in the company's decision to pass up business generated by the medicare and medicare programs.

"Figure it out for yourself," one executive in Washington said. "If McDonnell had been winning contracts and making money, do you think the company would be passing up

the business? It's the fastest-growing segment of the data processing market."

In 1971, McDonnell Automation and EDS appeared to be developing as strong competitors for the claims processing business under the medicare program. McDonnell held six subcontracts with various insurances and Blue Shield organizations that managed medicare programs at the state and local level. EDS had nine such contracts.

The competition between the two companies appeared to intensify over the next two years. McDonnell Automation developed a model claims processing system for the medicare program designed as an alternative to a system offered by EDS. Meanwhile, EDS continued to win major contracts for processing medicare claims.

Early in 1972, both companies bid for a major claims processing subcontract offered by Nationwide Insurance Co., which managed the medicare program in Ohio and West Virginia.

In the initial bidding, McDonnell Automation proposed to process medicare claims at an average price of 53 cents a claim. EDS bid the same type service for 93 cents a claim. A sequence of meetings and secret negotiations followed the opening of bids and EDS eventually won the contract, which today gives it about \$9,500,000 a year in revenue.

The procedures followed by Nationwide Insurance in awarding the subcontract to EDS were so controversial that a full investigation was conducted by the General Accounting Office.

The GAO concluded that McDonnell Automation and another bidder, University Computing Co., had not been dealt with fairly in the negotiations that followed the opening of bids.

Representatives of Nationwide Insurance met with Social Security Administration officials several weeks after the bids were opened to discuss aspects of the EDS bid that did not conform with the administration's policy. Nationwide, which apparently favored the bid by EDS despite the higher cost, invited EDS representatives to attend the meeting.

At the meeting, verbal agreements were reached allowing EDS to overcome the objections raised by the Social Security Administration—primarily the higher cost of the EDS proposal over that of McDonnell. EDS agreed to lower its bid. Shortly after the session, EDS was awarded the contract.

"Nationwide and EDS agreed to modify the proposed subcontract substantially," the report said. "Despite the Social Security Administration's suggestion that other (bidders) be given the opportunity to compete, Nationwide did not give University Computing or McDonnell Douglas such an opportunity."

The GAO report concluded that the subcontract arrangement reached by Nationwide and EDS "was not consistent with the Social Security Administration's stated policy of fostering competition among the various suppliers of data processing services." However, no effort was made to rescind the contract.

After its experience with the Nationwide Insurance subcontract, McDonnell Automation began to shift its interest from the medicare and medicare data processing business to developing automated accounting services for hospitals.

Other data processing companies have had similar experiences in trying to compete with EDS for business generated by medicare and medicare.

An executive of University Computing Co. told a special commission on medicare ad-

ministration in June 1973 that his firm was withdrawing from competition with EDS because it could not win.

"We have spent many thousands of dollars trying to compete in the medicare data processing market through competitive bidding," the executive said. "Our analysis of this 'competitive bidding' suggests that cost could not win an award, good service could not win an award, quality proposals could not win an award and knowledge of medicare processing could not win."

A similar complaint was made last October to the Senate's Permanent Subcommittee on Investigations.

Robert N. Trombly, president of Delphi Associates, Inc., a data processing firm in Wakefield, Mass., told the committee, "It's obvious to me that legislation or regulations . . . must be strengthened to exercise greater control over the subjective decisions which a state can currently make, or else the current farce of competitive bidding should not be required at all."

Trombly's firm, a subsidiary of Arthur D. Little Co. of Cambridge, Mass., had joined with Blue Cross of Washington to bid against EDS on a contract to be financial administrator and claims processor for the medicare program in Washington State. Delphi's bid was \$4,000,000—lower than that submitted by EDS over the three-year term of the contract, but state officials in Washington awarded the contract to EDS.

State officials said the contract went to EDS because the plan for carrying out the Delphi-Blue Cross claims processing system would have been "chaotic."

Delphi had a similar experience last year when it bid against EDS for the medicare claims-processing contract in Idaho. Delphi offered to process the state's medicare claims—about 450,000 a year—for 82 cents a claim. EDS bid \$1.25 a claim. The contract went to EDS.

Trombly told the Senate subcommittee that his firm's frustration in bidding for medicare contracts followed a similar experience in bidding for medicare contracts.

"Our first few futile attempts at securing business in the medicare market led us quickly to realize that we had better concentrate in some other area than medicare," he said.

Medicare is a federally financed program to provide hospital and doctor expenses for persons over 65 years old. Medicaid, essentially a cooperative state-federal welfare program, pays hospital and doctor expenses for poor persons. Both programs were started 10 years ago.

The awarding of the medicare management contract in Idaho to EDS has been challenged by Blue Cross in court, and final signing of the contract has been held up.

A suit to block the awarding of a medicare management contract was also filed recently in North Carolina, where the initial low bidder for a contract lost to EDS after negotiations between the company and state officials after bids were opened.

The Computer Co. of Richmond, Va., a firm that is financial manager and claims processor for the medicare program in Virginia and EDS both presented "final bids" last Nov. 10 to run the medicare program in North Carolina.

State officials awarded the \$4,313,000 contract to EDS although the Computer Co. bid was several thousand dollars lower over the 18-month term of the contract.

Walter Witschey, president of the Computer Co. said, in an interview of the company's encounter with EDS in North Carolina, "If we are unable to get the business by doing everything right, what does it take?"

Stan Neeley, president of Optimum Systems Corp. of Dallas, expressed similar sentiments recently in discussing with the Post-Dispatch his firm's attempt to win medicare

claims-processing contracts in Indiana, Iowa and California.

In each case, the contracts went to EDS. Optimum Systems filed suit over the California contract award, charging that the bidding procedures were structured so that only EDS could win.

In June 1973, a special advisory commission on medicare reported that data processing firms trying to compete with EDS for contracts were at a disadvantage for several reasons. The report said EDS had a "reputation for doing a good job," could offer a broader range of data processing and management services, already had the bulk of the business and maintained close ties with influential politicians.

Morton H. Meyerson, a vice president of EDS, told the Post-Dispatch that the company's dominance was the result of a highly professional approach to data processing and EDS's early entry into the business of managing Government health-care programs.

The success EDS has had in obtaining medicare and medicare management contracts concerns Government officials for several reasons:

—EDS is rapidly becoming so well entrenched in the complex business of health-care management that only small or marginally profitable contracts will go to other firms.

—Between 15 and 20 states will seek bids on contracts to run their federally financed health-care programs this year. If only one company appears as a strong contender for this business, a near monopoly could develop in the management of Government health care.

—State and federal officials agree that companies exercising management responsibility over Government health-care programs can greatly influence the cost, structure and ultimate effectiveness of such programs.

Officials are further concerned about the changing nature of EDS operations. Last year the company began bidding against Blue Cross and Blue Shield in several states to go beyond the processing of claims and take over the entire management responsibility for medicare and medicare programs at the state and local level.

In Texas, EDS has gone even deeper into the health-care business by forming a subsidiary insurance company to assume risks involved in that state's \$250,000,000-a-year medicare program.

[From the St. Louis Post-Dispatch, Feb. 9, 1977]

#### TWENTY-TWO PERCENT PROFIT ON WORK FOR MEDICAID

(By Curt Matthews)

WASHINGTON, February 9—Electronic Data Systems Corp. made a 22 per cent after-tax profit on its medicare claims processing business in California over the last three years, an independent audit made public by state officials shows.

Marion J. Woods, director of the California Department of Welfare Payments, called the company's profits excessive, unrealistic and unnecessary. The company defended them as reasonable.

"Our principal finding is that the Electronic Data Systems profit trend is resulting in profits substantially in excess of what we believe to be necessary or reasonable for a contract of this nature and duration," Woods said in a letter Jan. 25 to the head of the California Health and Welfare Agency.

Woods noted also that the arrangement California had for running its medicare program, with EDS processing claims under a subcontract with Blue Cross and Blue Shield organizations, did not give the state adequate control over claims processing.

Similar arrangements for running the

medicaid programs in Massachusetts and New York are now being sought by EDS.

The New York program is the largest in the nation, costing about 3 billion dollars a year and accounting for more than one fourth of all federal expenditures for medicare. The Massachusetts system is the fifth largest, costing about \$600,000,000 a year.

A recent independent state study in Michigan, focusing on EDS charges for data processing services rather than the company's profits, found that costs of EDS services were consistently higher than processing alternatives being considered by state officials.

EDS now processes about 20 per cent of all claims generated throughout the United States by the Government's two major health care programs, medicare and medicaid. If EDS is successful in its bids in New York and Massachusetts, the company would exercise control over nearly 50 per cent of the total medicare claims processing operation, government figures show.

Medicaid, approved by Congress in 1965, provides health care for more than 23,000,000 poor persons and handles more than 14.7 billion dollars in state and federal funds.

Officials in Washington and elsewhere have expressed concern that EDS could become the nation's only firm with both the technology and the experience to manage the billion-dollar government health care program that Congress will be asked to approve next year.

The California audit was done by Arthur Anderson & Co., a certified public accounting firm under contract for the Department of Benefits Payments and the state's auditor general.

Among the recommendations was that the state should seek new bids on a contract to manage the program and incorporate in it better controls over costs and procedures.

That recommendation is being considered as part of a total overhaul of the state welfare system, a state official said last week.

In 1969, a Blue Shield-type organization in California, known as California Physicians Service, signed a contract with EDS to process claims under medicare so that doctors and other providers of health care to the poor would receive payment for their services.

Subsequently, the two Blue Cross organizations in the state joined the arrangement and formed an organization called Medi-Cal Intermediary Operations (MIO). EDS processes medicare claims in California under a subcontract with Medi-Cal.

The audit summary says that because of EDS's "unique" position in processing claims under government-financed health care programs, the auditors had trouble establishing common financial elements in other companies to measure the cost and profit performance of EDS. The auditors finally decided to compare EDS profits in California with its profits from other business operations.

This comparison disclosed that EDS made twice as much profit from the Medi-Cal claims processing business as it did from its other business operations in the three-year period ending June 30, 1976.

The audit report makes clear that EDS has not mischarged or overcharged the state in violation of its agreement. The report points out also that various studies in recent years have concluded that neither the state nor other outside contractors appear to be able to process medicare claims more cheaply than EDS.

The audit marks the first time that government officials have been asked to measure accurately EDS profits for claims processing under medicare and medicaid.

Until recently, the company has been able to keep its earnings confidential because they were made through a wholly owned subsidiary known as Electronic Data Systems Federal (EDSF).

However, in 1975, Congress passed a law that allows any company deriving substantial revenues from government sources to be audited. This is effective whether the firm is a contractor or a subcontractor.

In response to the audit, Lester M. Alberthal Jr., an EDS vice president, said the company's profits over the six years of the California contract amounted to 15.6 per cent of revenues.

"Since 1969, EDS has committed substantial financial and corporate resources in support of the Medi-Cal program while operating under a month-to-month contract in an environment that can best be described as uncertain," Alberthal said in comments attached to the audit report. "When considering these factors, we feel that our profit margin . . . is reasonable."

EDS suggested that bids should be sought on a new contract if the state was dissatisfied.

At the time the audit was being prepared, California was the only state in which EDS held a subcontract to process all types of claims under a state's medicaid program. However, since last June, the cut-off date for information included in the audit, EDS has been awarded contracts for claims processing and medicaid program management in Alabama, Idaho, North Carolina, Tennessee, Texas and Washington.

Although EDS got its start in the health care industry as a claims processor using an advanced system of electronic data processing, in recent months it has expanded the scope of its operations to include management responsibility for state medicare and medicaid programs.

The audit report in California comes only a few months after the independent study in Michigan concluded that that state had saved considerable money by acting as its own medicaid claims processor.

The study compared the cost for processing a single claim in Michigan with the cost of processing claims in four states in which EDS is involved.

The study said that the EDS charge in Indiana for each line of information entered on a medicare claim was 95 cents and that the comparable cost in Michigan was 36 cents.

In Washington, which only last year awarded a contract to EDS to manage the state's medicaid program, EDS charges 48 cents to prepare each document related to a claim. In Michigan, the comparable charges are 16 cents.

In California, under its subcontract to Medi-Cal, EDS charges about 91 cents to process a claim, says the Michigan report. The comparable claims processing functions cost only 26 cents in Michigan.

Similar cost data adverse to EDS was presented and documented in the report regarding the company's charges for processing medicaid claims in Texas.

The Michigan study concludes, "In summary of our review, Michigan's present medical assistance claims processing and payment system is most effective, includes all features offered by EDS, and is being operated at much lower administrative costs."

Three years ago, the Department of Health, Education and Welfare engaged the accounting firm of Touche Ross & Co. to conduct a study of state administration of the medicaid program. That study, which some industry sources say is biased, concluded that states that arrange for outside firms to run their medicaid programs can expect to pay 30 per cent higher administrative costs than those states that run their own programs.

Missouri officials have rejected overtures from EDS, contending the state can process its own claims more inexpensively.

(This concludes additional statements submitted by Senators today.)

#### ORDER FOR RECESS UNTIL 3 P.M. ON TUESDAY, MARCH 1, 1977

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that when the Senate completes its business today, it stand in recess until 3 p.m. on Tuesday next.

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

#### AUTHORITY FOR COMMITTEES TO FILE REPORTS

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that committees may have until midnight tonight to file reports.

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

Mr. ROBERT C. BYRD. I also ask unanimous consent that committees also may have until midnight on Monday of next week to file reports.

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

Mr. BAKER. Mr. President, reserving the right to object—and I will not object—I have a parliamentary inquiry. The filing of the report is not the effective aspect of the 3-day rule, is it?

The ACTING PRESIDENT pro tempore. The 3 days commence from when the report becomes available in printed form.

Mr. BAKER. So that to extend the time for the filing of the report, the 3-day rule would still obtain, running from the time of the availability of the report?

The ACTING PRESIDENT pro tempore. That is correct.

Mr. ROBERT C. BYRD. Mr. President, a word of explanation to the distinguished Republican leader as to why I made this request: I know what he has in mind—I think I do. He probably has in mind the report on the Warnke nomination. That was not what I had in mind.

I want to facilitate the actions of committees, during those days when the Senate is not in session, to meet and to mark up bills and to file reports, so that the measures can be listed on the calendar, thus enabling the Senate to begin floor activity on such measures at the earliest possible moment.

Mr. BAKER. Mr. President, I thank the majority leader for that explanation.

#### NOMINATION OF PAUL C. WARNKE

Mr. GRIFFIN. Mr. President, I ask unanimous consent to have printed in the RECORD the minority views which I have filed today as a member of the Committee on Foreign Relations, relating to the nomination of Paul C. Warnke to be the chief U.S. SALT negotiator.

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

#### MINORITY VIEWS OF U.S. SENATOR ROBERT P. GRIFFIN

In general, I believe the Senate should not interfere unnecessarily with a President's right to appoint officers in his administration whose views and judgment he respects.

Only in rare instances have I felt compelled to oppose confirmation of a Presidential nominee. I do so now with reluctance

and out of deep concern for the public interest.

Two nominations of Mr. Paul C. Warnke are pending: one, to be Director of the Arms Control and Disarmament Agency (ACDA), and the other, to be Ambassador (for the Strategic Arms Limitation Talks). After meeting with Mr. Warnke privately in my office, attending the public hearings of the Committee on Foreign Relations, and reviewing his writings and public statements at some length, I have concluded that I must vigorously oppose his nomination to be our chief SALT negotiator.

My reasons for this decision are several: Over a period of years Mr. Warnke has established a record of opposition to virtually every major U.S. strategic initiative, including the sea-launched cruise missile, the B-1 bomber, the Trident submarine, the Trident II submarine-launched ballistic missile, and the MIRV and MARV re-entry vehicle programs. To send him to Geneva to negotiate with the Russians would be like hiring a real estate agent to sell your house who already has publicly declared that it's worth only half the asking price.

It is apparent from his confirmation-hearing testimony that Mr. Warnke suddenly has changed his mind on a number of his long-held positions. Of greater concern: during the hearings, he at least misstated—if not misrepresented—some of the positions he earlier held. In each case, one can only speculate as to why.

The defense strategy that Mr. Warnke has articulated consistently—until now—is, in my view, incompatible with U.S. security interests. Instead of helping to secure a verifiable arms control agreement, I believe Mr. Warnke's approach would make the attainment of meaningful arms control less likely. In the process, such an approach could even expand the likelihood of international aggression and increase the danger of nuclear proliferation.

Finally, I believe a compelling case can be made that one person should not hold simultaneously both the position of ACDA Director and chief SALT negotiator.

Let's examine the record:

#### I. WHAT DOES MR. WARNKE REALLY BELIEVE?

Until February 8, 1977, it was no problem to determine what Mr. Warnke stood for. Theretofore, he had written numerous articles and had testified on many occasions before House and Senate committees with remarkable consistency.

But suddenly, when he testified on February 8, 1977, before the Foreign Relations Committee, he took a different line. Here are some examples of the kinds of conflicting statements that cause me concern.

#### Strategic forces

##### The Sea-Launched Cruise Missile

The sea-launched cruise missile (SLCM) has been a major stumbling block to consummation of a SALT II treaty. The Soviets have proposed that such weapons be limited in range to 600 kilometers. The United States has viewed this as unrealistic in the absence of provisions for on-site inspection, which the Soviets have refused to permit.

What has been Mr. Warnke's view of the SLCM? In 1972 he testified before the Foreign Relations Committee concerning the SALT I agreements, and he referred to the cruise missile in these terms:

"This has little more merit than a nuclear arrowhead shot from a cross-bow."

During his recent confirmation hearings, I asked Mr. Warnke how he was going to negotiate on this issue with the Soviet Union if that was his view of the cruise missile. He replied:

" . . . I cannot defend today everything I may have said in the past, and I won't try to do so. Obviously, the cruise missile technology has progressed amazingly since

Footnotes at end of article.

1972. . . . We have to look at it very closely. I think that it's not a decision that ought to be reached specifically."<sup>3</sup>

Shortly thereafter, this exchange occurred: "Senator HATCH. What about the cruise missile?"

Mr. WARNKE. The cruise missile, I think, requires extensive study. I don't know what the eventual position is that I would recommend with respect to the cruise missile."<sup>4</sup>

During the same hearing, I noted that Mr. Warnke has been a member of the advisory board of the Center for Defense Information, an organization that in 1976 argued that the United States should accept a range limitation on the cruise missile. This exchange followed:

"Mr. WARNKE. I have an entirely open mind on Cruise missiles, Senator Griffin. I had no participation in the formulation of that particular recommendation at all.

Senator GRIFFIN. So that recommendation [of the Center for Defense Information] does not necessarily represent your personal viewpoint?"

Mr. WARNKE. I have not made up my mind at the present time as to what position I would advocate.

Senator GRIFFIN. You do believe that, if there are restrictions . . . as far as Cruise missiles are concerned, that verification is going to be necessary?"

"Mr. WARNKE. Verification would certainly have to be necessary. I think that is one of the problems involved in the Cruise missile question because I do not believe that the satellites would be able to tell, with any degree of reliability, just what the range was of any given Cruise missile."<sup>5</sup>

In general, I found Mr. Warnke's statements on cruise missiles during his confirmation hearings quite reassuring. But I am still troubled by his earlier statements on the same subject.

For example, consider this exchange from Senate Armed Services Committee hearings of July, 1973:

"Senator McINTYRE. You will probably be pleased to know that the [Research and Development] subcommittee will also recommend that we do not proceed with the submarine-launched cruise missile.

"Mr. WARNKE. I am very pleased to hear that, Senator."<sup>6</sup>

Or consider—especially in view of Mr. Warnke's efforts to disassociate himself from the range limitations on cruise missiles proposed in 1976 by the Center for Defense Information—this exchange, which took place just one year ago during a program sponsored by Members of Congress for Peace Through Law:

"Question. What is your position on cruise missiles?"

"Answer [by Mr. WARNKE]. We should not develop the SLCM, since it can be put in any type of deck launcher. If we can agree with the Soviet Union to ban testing of SLCMs that would be enough to stop its use, since the military wouldn't want to use something that has never been tested, ALCM's [air-launched cruise missiles] should have a 1,500 mile range limit."<sup>7</sup>

There are several factual problems inherent in this position.

Mr. Warnke asserts that a ban on SLCM testing "would be enough to stop its use." This ignores the fact that the Soviets have already tested and deployed hundreds of sea-launched cruise missiles. And since much of the testing required for SLCMs can be conducted in wind tunnels, or can otherwise be concealed from satellite observation, it would be extremely difficult, if not impossible, to verify that such a ban was being honored by the Soviets.

Mr. Warnke's suggestion that a range limit be placed on air-launched cruise missiles is also fraught with problems. The range of a cruise missile can be greatly increased

through modifications in fuel-to-payload ratio, improvements in engine design or fuel quality, or changes in flight profile. As has already been noted, Mr. Warnke himself testified during his confirmation hearings that: "I do not believe that the satellites would be able to tell, with any degree of reliability, just what the range was of any given cruise missile." This fact is further illustrated by a report in the current issue of *Aviation Week*. Discussing current U.S. cruise missile programs, the magazine observed:

"[The Air Force] also hopes to begin development within the near future of a B version of the [air-launched cruise] missile, which would approximately double the 750 mi. range capability of the current A model now under development. This would be accomplished by the insertion of a 60-in. fuselage plug designed primarily to carry additional fuel for the systems . . . engine."<sup>8</sup>

Finally, given his consistent opposition to the SLCM at least up until a year ago, Mr. Warnke's assertion now at the confirmation hearing that he has "an entirely open mind on cruise missiles" is surprising—to say the least.

#### The B-1 Strategic Bomber

In his confirmation hearings, Mr. Warnke said this about the B-1 bomber:

"I have expressed my concern about the B-1 bomber as not being the optimum replacement bomber. . . ."

"If the B-1 bomber turns out to be the optimum bomber to replace the B-52, then that is the bomber we ought to buy."<sup>9</sup>

Has he in fact just "expressed his concern" in the past, or did he in fact oppose the program and urge that it be halted? The record is clear.

In 1972, Mr. Warnke said:

"What the ABM Treaty does provide is that we need . . . no new bombers . . . to enable us to penetrate a nonexistent Soviet defense."<sup>11</sup>

In 1974, he argued:

"Procurement of additional B-1 aircraft should be halted and development work begun on a follow-on to the B-52 bomber which could use the stand-off air-to-surface weapons now under development."<sup>12</sup>

#### The Trident II Missile

During his confirmation hearing, Mr. Warnke asserted that he has supported the Trident II sub-launched ballistic missile:

"I have supported consistently the TRIDENT missile, because that's what gives you the increased capability. The TRIDENT missile, of course, initially raises the range from 2,000 miles to 4,000 miles, and I believe that the follow-on one [TRIDENT II] has a range of 6,000 miles. That is a distinct increase in the deterrent efficacy of our force, and I support it."<sup>13</sup>

But has this, in fact, been his "consistent" position in the past? Consider this statement which he made to the Senate Appropriations Committee in May of 1974:

"The 4,000 mile Trident I missile—usable in the existing force—is a worthwhile program, but the . . . 6,000 mile Trident II missile . . . [is] not and should be suspended at least until an evaluation can be made as to the proper replacement for Polaris."<sup>14</sup>

#### Other Strategic Programs

In addition to opposing the sea-launched cruise missile, the B-1 bomber, and the Trident II submarine-launched ballistic missile, Mr. Warnke has also gone on record in opposition to the Trident submarine,<sup>15</sup> the so-called MIRV<sup>16</sup> and MARV<sup>17</sup> reentry vehicles for our ballistic missiles, and other programs "designed to increase the accuracy and yield of our existing strategic nuclear missiles."<sup>18</sup>

#### Tactical nuclear weapons in Europe

During the February 8, 1977 confirmation hearing, the following exchange took place: "Senator GRIFFIN. And you've indicated

[support for] the cutback from 7,000 to less than 1,000 of our tactical nuclear weapons in Europe?"

Mr. WARNKE. Again, I testified that I thought that we probably ought to take a look at our tactical nuclear weapons in Europe from the standpoint of the security of the United States, yes. I think that there are some that are positioned in a fashion that ought to be re-examined."<sup>19</sup>

Once again, what was Mr. Warnke's earlier position with respect to tactical nuclear weapons in Europe? Did he testify that "we probably ought to take a look at" them? Or did he, in fact, argue that they should be reduced?

Testifying before the Foreign Relations Committee in March of 1974, Mr. Warnke said:

"I think the deterrent purpose of tactical nuclear weapons could be served by something like several hundred rather than several thousand. . . . In my opinion, the number of tactical nuclear weapons now deployed in Europe should be very substantially reduced. . . . Rationally considered . . . the present number and variety of our tactical nuclear weapons in Europe is dangerously excessive and their pattern of deployment is undesirable." (Emphasis added.)<sup>20</sup>

It is perhaps worth noting that Secretary of State Vance has repudiated Mr. Warnke's call for a unilateral withdrawal of tactical nuclear weapons from Europe.<sup>21</sup>

#### Conventional weapons

What has been Mr. Warnke's attitude toward U.S. conventional forces? Here is what he said during his confirmation hearing: "Senator DANFORTH. Do you think that we should have a reduction in our conventional capability?"

Mr. WARNKE. No, I don't think that we should have a reduction in our conventional capabilities because at the present time the CIA estimates are that the Soviet Union is spending more money than we anticipated on them, as a consequence, we would be rash, particularly at a time when we are trying to reach arms control agreements, to cut back on our actual capability.

Senator DANFORTH. Is this a change of position for you?"

Mr. WARNKE. No, I have suggested in the past that we could reduce the defense budget, but that is not inconsistent with the position of maintaining a conventional capability. It is a question of finding more effective ways to perform the desirable and necessary missions."<sup>22</sup>

To begin with, there is a significant difference between maintaining "our conventional capabilities" and "maintaining a conventional capability."

More importantly, the record suggests that—in spite of his denial—Mr. Warnke has changed his position on this issue.

#### Tactical Aircraft

In 1974, Mr. Warnke headed a 21-member panel on defense programs for an organization known as the Project on Budget Priorities, which called for demobilization of 8 of our 29 U.S. tactical air wings.<sup>23</sup> He has consistently opposed the F-14 aircraft and its Phoenix missile.<sup>24</sup> On at least one occasion, he has opposed the F-15 as well.<sup>25</sup> He has also been a consistent critic of AWACS.<sup>26</sup>

#### U.S. Air Defense Programs

Mr. Warnke has called for cancellation of the SAM-D Army anti-aircraft missile,<sup>27</sup> and has expressed "serious questions . . . as to the desirability of going ahead with any further expenditures for air defense in the continental United States." (Emphasis added.)<sup>28</sup>

#### Aircraft Carriers

Mr. Warnke has called for a gradual reduction from 12 to 9 aircraft carriers.<sup>29</sup>

#### The XM-1 Tank

In testimony before the Senate Appropriations Committee in May 1974, Mr. Warnke

Footnotes at end of article.

urged the suspension of all new tank development, asserting:

"... [M]assive procurement and development of a super tank are hardly justified at present."<sup>20</sup>

More recently, in testimony before the House Budget Committee, Mr. Warnke argued:

"I think there is no question of the fact that we are all the victims of our experience and that there is a tremendous tendency to re-fight the last war...."

[T]here is a tendency on the part of the Army to think in terms of tank combat on the plains of Europe....

With regard to the proposals that the Army has come up with, I would say with respect to tanks that it is sort of the same phenomenon we have had with tactical aircraft, or with the B-1, that there is a feeling once a particular item gets to be a certain age you have to replace it. It is the new car syndrome and after a period of time you somehow are disadvantaged unless you come up with a new model.... The capabilities that are being built into them are probably either unnecessary or else of such marginal value as not to be worth the cost."<sup>21</sup>

Given the fact that the Soviet Union has been outproducing the United States by about 6 to 1 in tanks during the past five years,<sup>22</sup> that Warsaw Pact forces now have about three times as many tanks as NATO forces in the critical Northern and Central European area<sup>23</sup>—and that Moscow has now begun deploying in Eastern Europe its latest T-72 tanks,<sup>24</sup> which are significantly more modern than existing U.S. tanks—Mr. Warnke's approach seems at best naive.

#### Manpower Reductions

What about Mr. Warnke's views on reducing military manpower? During the course of his confirmation hearings, he said that "... we ought to take a look at that, too, because the cost of manpower is now something like 53 percent of our total defense budget."<sup>25</sup> But for him to say now that "we ought to take a look" at manpower requirements does not quite reflect accurately his earlier positions on this subject.

For example, consider this exchange before the Senate Appropriations Committee in 1974:

Chairman McCLELLAN. In order to make the cuts or hold the level of spending to what you suggest, would you think that it would require a reduction in personnel?

Mr. WARNKE. I believe that it should require a reduction in personnel, yes.

Chairman McCLELLAN. We have a total of 2,194,000 in military personnel. How much do you think we should reduce the total?

Mr. WARNKE. I think certainly a figure of 2 million would be perfectly adequate.

Chairman McCLELLAN. You would take off 194,000?

Mr. WARNKE. Yes.... As I say, there is no magic in the figure 194 [thousand]. I think we can take out more than that."<sup>26</sup>

During the same hearing, responding to a question submitted in writing for the record by Senator Young, Mr. Warnke said:

"Any proposals for a buildup in ground forces should, in my opinion, be premised on some perception of an increased Soviet threat. I have seen no evidence of such increased threat.... Soviet military manpower has remained relatively static for some years."<sup>27</sup>

This statement raises serious questions about Mr. Warnke's knowledge of Soviet military trends. In fact, while U.S. military manpower levels have been decreasing consistently in recent years, the Soviet Union has increased its personnel strengths significantly. During the 10 years prior to Mr. Warnke's response to Senator Young, Soviet armed forces increased by more than 10 percent (up 360,000), while U.S. forces dropped 25 percent (down 550,000). In 1973-1974 alone, Soviet

forces increased by 100,000—or a 2 percent increase.<sup>28</sup>

It appears that Mr. Warnke was actively lobbying for major cuts in the defense strength of the United States without first learning what the Soviets were doing.

#### Troop Cuts in Europe

Mr. Warnke has also called for "significant" unilateral reductions in U.S. forces in Europe. Even while the United States was trying to negotiate a Mutual and Balanced Force Reduction (MBFR) agreement with the Warsaw Pact nations, Mr. Warnke argued that we should not wait for progress in the negotiations, but instead should begin a unilateral withdrawal.

For example, in 1974 he said:

"There is certainly no military necessity nor any diplomatic purpose for maintenance of all our present 300,000 troops in Europe indefinitely. Nor can we wait indefinitely for complex arms control negotiations to begin this process of reduction. We should work out with our European allies a practical program for restructuring our NATO conventional plans in ways that will permit gradual but significant reductions in the U.S. force."

Mr. Warnke said he would not wait "indefinitely." Just how long would he have waited? He wanted to begin that very year:

"Mr. WARNKE. I probably would make a minor cut in NATO forces.

Chairman McCLELLAN. What is a minor cut?

Mr. WARNKE. Something like 30,000. Chairman McCLELLAN. 30,000 from NATO. Would you demobilize those?

Mr. WARNKE. I would."<sup>29</sup> Continuing, Mr. Warnke stressed that the 30,000 cut was to be just a first step:

"Mr. WARNKE. I think also we ought to be looking toward more substantial reductions in the NATO forces over a period of time.

Chairman McCLELLAN. I am talking about this year....

Mr. WARNKE. As I say, that would be as far as I was concerned the first withdrawal."<sup>30</sup>

#### Defense budget cuts

Mr. Warnke has consistently called for major reductions in the level of U.S. defense spending.

In 1972, when the defense budget was \$85.9 billion, he said:

"A defense budget of \$50 billion to \$60 billion is anything but an isolationist budget."<sup>31</sup>

In other words, he at least appeared to be supporting a reduction in U.S. defense spending of between \$26 billion and \$36 billion—which, at the time, would have been a cut of as much as 40 percent.

In 1974 he advocated a \$15 billion cut in the defense budget. He said:

"Far more than a \$5 billion cut, or a \$6.5 billion cut, could be made without sacrifice to our national security. A report in which I participated defined some \$15 billion that might safely be trimmed from the current military request.... Any realistic assessment of the valid purposes of military power in today's world would justify the deletion of these items."<sup>32</sup>

That same year, in addition to proposing a 16 percent reduction in the defense budget, Mr. Warnke urged the Congress to set a ceiling on defense spending and to reduce that ceiling in constant dollars by 3 percent each year over a five-year period.<sup>33</sup>

And yet, after all of those consistent calls for major reductions in strategic and conventional forces, Mr. Warnke told the Foreign Relations Committee during his confirmation hearing that:

"I believe, and I have said repeatedly, that we cannot yield superiority either in strategic or conventional arms to the Soviet Union."<sup>34</sup>

#### Strategic superiority

During his recent testimony Mr. Warnke repeatedly assured the Committee that he would not yield "strategic nuclear superiority" to the Soviet Union. But there is considerable evidence that Mr. Warnke believes that the concept of nuclear superiority is meaningless.

In an article he wrote for the October 1969 issue of the *Washington Monthly*, for example, Mr. Warnke said:

"Superiority in nuclear missiles... is too expensive if all it gives us is a status symbol. And 'inferiority' is no cause for alarm or even embarrassment if what we have is enough to deter any Soviet effort at a preemptive strike."<sup>35</sup>

In 1971 Mr. Warnke told the Foreign Relations Committee:

"There appears to be considerable agreement that 'nuclear superiority' has become a meaningless and irrelevant criterion in designing strategic forces. The argument continues to be made, however, that a numerical lead which is militarily meaningless may somehow be exploitable politically. I feel this is a fallacy and can lead to weapons overdesign and the escalation of the arms race." (Emphasis added.)<sup>36</sup>

After the 1972 SALT Interim agreement was signed in Moscow, Mr. Warnke again testified before the Foreign Relations Committee. Here is what he had to say about the numerical disparity in the agreement—which allowed the Soviets to have 2,350 missile launchers to the United States' 1,710:

"... [T]he continuation of the missile numbers game is in fact a mindless exercise... there is no purpose in either side's achieving a numerical superiority, which is not translatable into either any sort of military capability or any sort of political potential. That is why, in my opinion, the ceilings that are placed in the interim agreement on both land-based and sea-based missiles should not be the cause of any concern on our part... [W]e should not be concerned about the existing mathematical edge nor should we be concerned about any attempts that the Soviet Union might make to add additional, useless numbers to their already far more than adequate supply... [W]ere the Soviet Union to do this, we might perhaps feel some relief that they have not expended their funds on militarily more meaningful and potentially more mischievous purposes... If missile numbers were a valid measure of national strength, then the Interim Agreement would be improvident; but since they are without significance, there is nothing for which we need compensate."<sup>37</sup>

At about the same time, Mr. Warnke participated in a debate with Senator James Buckley, under the auspices of the American Enterprise Institute. During that debate, Mr. Warnke said:

"And even substantial nuclear superiority, short of nuclear monopoly, could not be a decisive factor in any political confrontation between the United States and the Soviet Union."<sup>38</sup>

Mr. Warnke's record on this critical subject has been remarkably consistent. And while he, like all of us, has the right to change his mind—the dramatic differences between his past statements and those expressed at his confirmation hearings cannot be explained away so easily.

Both privately in my office and later before the Foreign Relations Committee, I asked Mr. Warnke why he had opposed the SALT I interim agreement in 1972. On each occasion he replied that his primary concern had been the numerical disparity in strategic missile launchers.<sup>39</sup>

I have re-read his 1972 testimony several times, and can find no indication that he was seriously troubled by the numerical differences. On the contrary, as the excerpts quoted above indicate clearly, Mr. Warnke

Footnotes at end of article.

testified that these differences were "without significance."

## II. REPLY TO MR. NITZE

Among the most persuasive testimony the Committee received against the nomination of Mr. Warnke was a letter from his former Pentagon superior, Mr. Paul Nitze—who later testified in person against the nomination.

Senator Percy read a portion of Mr. Nitze's letter, and invited Mr. Warnke to respond. The letter said that Mr. Warnke represented a school of thought that:

"... believed our true strategic interests were limited to Western Europe, Japan and Israel; that the U.S.S.R. presented our *only* military threat and that that threat could be deterred with forces less capable than those that had already been authorized." (Emphasis added.)<sup>60</sup>

In response, Mr. Warnke disagreed, arguing—among other things—that:

"I certainly don't believe that our strategic interests are limited to Western Europe, to Japan, and to Israel. What I have suggested is that the *primary* military threat is the Soviet Union and that military forces ought to [be] optimized to deal with that particular threat." (Emphasis added.)<sup>61</sup>

Let's take these two points in reverse order.

Has it been the position of Mr. Warnke that the Soviet Union is "our *only* military threat," as Mr. Nitze asserted in his letter? Or, has Mr. Warnke argued—as he claims—that the Soviet Union is "the *primary* military threat?"

Here are some of his past statements:

In 1974 he said:

"I think we have to recognize two things. One of them is that when we talk about Soviet aggression, we do so because that is the *only* real military threat because they *only* have the capability." (Emphasis added.)<sup>62</sup>

And in 1975, Mr. Warnke wrote:

"We face a *single* military threat, not a hostile world." (Emphasis added.)<sup>63</sup>

"We ought to recognize that, in terms of military threat, what we face today is not a hostile world but a world in which the Soviet Union is the *only* power confronting us that raises a military threat." (Emphasis added.)<sup>64</sup>

More recently, in 1976 he said:

"We, however, face *only* one threat—the use of Soviet military power against us or those whose autonomy is integral to our security." (Emphasis added.)<sup>65</sup>

Now let's consider the other point. Mr. Warnke denied that it has been his position that "... our strategic interests are limited to Western Europe, to Japan, and to Israel." Here are some relevant excerpts from his writings and public statements:

"I still believe our alliances with Western Europe and Japan continue to serve the interests of international stability and healthy progress; but surely the time has passed when one could consider it healthy, or even rational, to engage worldwide in a game of choosing up sides."<sup>66</sup>

Following is an exchange which occurred in May 1974, in the Senate Appropriations Committee:

"Chairman McCLELLAN. . . . You say we ought to be prepared to support NATO?"

Mr. WARNKE. That is correct.

Chairman McCLELLAN. And we ought to be prepared to protect Japan to keep her comfortable, using your expression.

Mr. WARNKE. That is correct.

Chairman McCLELLAN. Where else? . . . Now where else will the military play a part? Where else should we be sure that our military is adequate to play a part in world peace besides these two areas?

Mr. WARNKE. Apart from those areas, Mr. Chairman, I can think of none in which the United States ought to be prepared to go to war.

Chairman McCLELLAN. No other areas except those two areas?

Mr. WARNKE. The intervention of American military forces in any other area is something that is beyond my imagination to conjure as being useful."<sup>67</sup>

I believe the factual record supports Mr. Nitze's analysis of the Warnke position—at least on these points—despite Mr. Warnke's assertions to the contrary.

## III. MR. WARNKE'S THEORY OF MUTUAL RESTRAINT THROUGH UNILATERAL ACTION

Mr. Warnke is best known as an arms controller for his theory of "mutual restraint."<sup>68</sup> Just a few excerpts from his writings and public statements of the past five years should establish the intensity and consistency of this approach in his arms control philosophy.

### Past Warnke statements

The SALT I interim agreement on offensive strategic weapons was intended, as its title suggests, to be a temporary step in solving a major problem. Further negotiations were expected to lead to more permanent limitations.

When Mr. Warnke appeared before the Foreign Relations Committee in June 1972, he said this about the SALT I agreements:

"In my view, the major accomplishment of the agreements signed at Moscow is to assure time for sensible self-restraint. No action that the Soviet Union can take, at least for the duration of the Interim Agreement, can threaten our deterrent or in any way endanger our security.

"Accordingly, I would recommend that we announce now that we are withholding any further deployment of nuclear weapons pending further negotiations. . . . What the ABM Treaty does provide is that we need no more MIRVs, no new bombers, no larger submarines to enable us to penetrate a non-existent Soviet defense.

"Instead of bargaining chips, I think our restraint can create the best climate for further progress in arms limitations. Our example can be well publicized and can, and I believe would, put great pressure on the Soviet Union to respond in kind."<sup>69</sup>

In 1974, while the Administration was opposing unilateral U.S. military reductions in Europe—on the premise that any cutbacks should come through the MBFR talks then underway with the Warsaw Pact nations—Mr. Warnke again called for unilateral restraint. Testifying before the Senate Appropriations Committee, he argued:

"Nor can we wait indefinitely for complex arms control negotiations to begin this process of reduction. We should work out with our European allies a practical program for restructuring our NATO conventional plans in ways that will permit gradual but significant reductions in the U.S. force."<sup>70</sup>

Three months later, Mr. Warnke said this to the Senate Budget Committee:

"My own feeling . . . is that we ought to try a unilateral initiative. . . . Why can't we call on the Soviet Union to match our restraint? Why can't we say we are going to stop any further MIRVing, we are going to stop the B-1 program, we are going at least to slow down the Trident program, and we are going to ask for your response, and we expect a response from you."

What kind of a response did Mr. Warnke expect? Here is what he had to say:

"Now I don't think we can expect them not to MIRV at all, because at the present time they have not, and we have . . . something in the nature of 800 or 900. So we can't expect them to have any different idea of strategic equality than we have, and so they will go ahead with some MIRVing. But as long as they limit the size of the missiles that they MIRV, so that they don't have any more of an ability to destroy our land-based missiles than we have to destroy theirs, then we are not faced with the necessity of taking

further, more expensive, I think more dangerous initiatives of our own. And at least this could be tried. Maybe it won't work, but I certainly am never going to be confident that it won't work until it has been demonstrated that it fails, because if it makes sense to us, it makes sense to them."<sup>71</sup>

Writing in the Spring 1975 issue of *Foreign Policy*—in what was probably his most widely read article—Mr. Warnke again made a plea for unilateral U.S. restraint in the hope that the Soviet Union would emulate our action. Characterizing the Soviet strategic buildup as the "monkey see, monkey do" phenomenon," and by his title comparing the strategic arms race to "Apes on a Treadmill," Mr. Warnke concluded that by unilateral restraint, "We can be first off the treadmill."

He explained:

"The question inescapably arises whether, under our current defense policies, we can afford to negotiate about arms control. . . . Insofar as formal agreements are concerned, we may have gone as far as we can now go. . . . What is needed most urgently now is not a conceptual breakthrough but a decision to take advantage of the stability of the present strategic balance. It's futile to buy things we don't need in the hope that this will make the Soviet Union more amenable. The Soviets are far more apt to emulate than to capitulate. We should, instead, try a policy of restraint, while calling for matching restraint from the Soviet Union.

"As a start, we might inform the Soviet Union both privately and publicly that we have placed a moratorium on further MIRVing of our land- and sea-based missiles. We should also announce that a hold has been placed on development of the Trident submarine and the B-1 strategic bomber. We should advise the Soviet Union that this pause will be reviewed in six months in the light of what action the Soviet Union takes during the period.

"If the Soviet Union responds by some significant slowing of its own strategic arms build-up, we can at the end of the first six months announce additional moves."<sup>72</sup>

Even within the past year, Mr. Warnke has continued to advocate unilateral restraint. For example, speaking to a gathering of Congressmen and staff members under the auspices of an organization known as Members of Congress for Peace Through Law, Mr. Warnke said on February 24, 1976:

"We have never seriously attempted arms reduction. I am an optimist that, if we genuinely tried, we could succeed. The only serious attempt made in this direction was made by President Kennedy at the time of the Test Ban Treaty. It was only accomplished when the bold unilateral initiative was taken by the U.S. . . . To take the initiative today, we must change our rhetoric, and initiate a freeze on nuclear weapons. Once we have made the effort, we can call for 'reciprocal restraint' on the part of the Soviets."<sup>73</sup>

### Shortcomings of "mutual restraint" theory

In view of the consistent emphasis which Mr. Warnke has given to "mutual restraint" as the most promising means of securing arms control, it is worthwhile to comment on the inherent shortcomings of such a policy.

#### 1. It has been tried—And it doesn't work

Mr. Warnke frequently asserts that mutual restraint has never really been tried, except in 1963 when it led to the Test Ban Treaty. He is mistaken.

In April 1965, the U.S.—U.S.S.R. military balance looked very good to the Pentagon. Defense Secretary McNamara felt optimistic enough to assert in a *U.S. News & World Report* interview, that:

"[T]he Soviets have decided that they have lost the quantitative [arms] race, and they are not seeking to engage us in that con-

test. . . [T]here is no indication that the Soviets are seeking to develop a strategic nuclear force as large as ours."<sup>64</sup>

This strategic assessment was apparently encouraging enough that the Johnson Administration decided to try just the sort of unilateral restraint that Mr. Warnke now advocates.

On April 26, 1965, Adlai Stevenson, our ambassador to the United Nations, addressed the U.N. Disarmament Commission—in the presence of the Soviet delegation—and said this:

" . . . I should also say, Mr. Chairman, that while we discuss actions to be taken to limit and reverse the arms race, we should all be conscious of what we ourselves can do. Each nation has an obligation to make its contribution in the way that is in the first instance most immediate—by its own actions. For its part, the United States has taken some actions which we hope will be reciprocated. I have mentioned the effort made by my Government that has resulted in reduction of military expenditures; I have noted the reductions in the planned production of fissionable materials; and I have commented on the program initiated to begin the reduction of B-47 strategic bombers from our active inventory. In connection with this last point I might observe that by mid-1966 the United States will have inactivated or destroyed over 2,000 B-47 bomber-type aircraft. I might also add that none have been provided as potential strategic nuclear vehicles to other countries. In addition, the United States will make a reduction during 1965 in the number of B-52 heavy strategic bomber aircraft in the existing operational force. These reductions also will be accomplished by destruction of aircraft. Moreover, the United States now plans to forego the construction of some advanced-design Minuteman missiles which were included in our plans, as well as further increments of such missiles for the future. These are examples of restraint on the part of a nation which is capable of far greater military production. There are limits, however, to the restraints or other actions that can be taken unilaterally without reciprocity." (Emphasis added.)<sup>65</sup>

These were significant measures of unilateral restraint by the United States, and U.S. restraint in strategic programs continued for more than a decade. The numbers of American strategic missiles—both ICBMs and SLBMs—remained constant from 1966 until today.

If Mr. Warnke was correct in his premise that the Soviets were merely "aping" the strategic policies of the United States, presumably some reciprocity to this unilateral restraint should have followed. It didn't.

In fact, the Warnke position was addressed in some detail just last month, when ACDA Director Dr. Fred Iklé testified before the Foreign Relations Committee. Dr. Iklé said: "I would like to turn now . . . to one persistent criticism of our strategic policy that combines a partial truth with a larger measure of misleading inaccuracy: the view that U.S. strategic programs drive the arms race, and the Soviets merely respond. The actual record strongly refutes this charge. If Soviet programs were merely a reaction to ours, their strategic budget would have declined over the last 15 years, because that is what ours did; they would have stopped deploying ICBMs when they reached 1,000 instead of building up to 1,600, because we stopped at 1,000; they would have stopped at 710 ballistic sea-launched missiles, as we did, instead of building up to 950.

"A similar pattern appears among the great many nuclear systems which exist outside of SALT. Thus, when we dismantled our intermediate range ballistic missiles and bombers, the Soviets did not follow suit. On the contrary, they are modernizing those

forces and substantially upgrading them with the new SS-20 missile and Backfire bomber.

"The Soviets have also deployed large numbers of air-launched and sea-launched cruise missiles, even though the U.S. until recently had taken little interest in equipping its own forces with these systems.

"If we were in the driver's seat, our cutbacks in the past and our unilateral restraint would have put on the brakes."<sup>66</sup>

Further evidence that the Soviets have not been "aping" the United States was provided last month by the Central Intelligence Agency. A new CIA study, entitled "A Dollar Cost Comparison of Soviet and U.S. Defense Activities, 1966-1976," tells what actually has been the trend in strategic spending during the decade since Ambassador Stevenson made his plea for mutual restraint:

"Over the 1966-1976 period, the level of Soviet activity for strategic forces measured in dollars has been two and one-half times greater than that of the U.S. Estimated dollar costs for Soviet strategic forces have greatly exceeded U.S. outlays throughout the period, with the difference growing since 1969. In 1976, the Soviet level is over three and one-half times that of the U.S."<sup>67</sup>

As a consequence, while the number of U.S. ICBMs remained constant, the U.S.S.R. increased its ICBM force by 167 percent, overtook the United States and established nearly a 40 percent numerical margin of superiority. In the past decade, the U.S. has developed one new ICBM, while the Soviets have developed seven—three of which are larger and more powerful than ours.

A similar picture appears if we look at submarine-launched ballistic missiles. America has the same number today as in 1966. During that period the Soviets have increased their SLBM force nearly seven-fold. Not only do they now lead us in SLBM missile launchers, but they also have nearly twice as many submarines equipped to launch them.

If it had any effect at all, the policy of unilateral restraint announced in April 1965 by Ambassador Stevenson appears to have encouraged the Russians to step up their strategic programs. Secretary McNamara's optimistic conclusion that Moscow had given up in the quantitative arms race proved not to be prophetic. Indeed, a dozen years later his successor as Secretary of Defense, and the Joint Chiefs of Staff, were forced to conclude that—rather than simply seeking nuclear deterrence—the Soviet Union today is seeking a capability to fight and to win a nuclear war.<sup>68</sup>

A more recent example of U.S. restraint in strategic weapons concerned the anti-ballistic missile (ABM) defense system. The following account is extracted from the 15th annual report of the Arms Control and Disarmament Agency—the organization Mr. Warnke has been nominated to head:

"Experience suggests that unilateral initiatives are not effective in changing positions on issues where there is basic disagreement. For several years in the 1960's, American officials publicly urged the benefit of mutual restraint in ABM deployment. In an interview on February 15, 1967, then Secretary of Defense McNamara stated his belief that the introduction of ABM systems 'would be wasteful' and that 'it would actually increase the risk to both of the parties were they to deploy anti-ballistic missile systems.'

The Soviet view at that time was quite different. In response to whether a moratorium on ABM development was possible, Premier Kosygin stated rather emphatically at a London news conference on February 9, 1967:

"I think that a defensive system, which prevents attack, is not a cause of the arms race but represents a factor preventing the death of people. . . . An antimissile system may cost more than an offensive one, but it is intended not for killing people but for

saving human lives. I understand that I am not answering the question that was put to me, but you can draw appropriate conclusions yourselves."

Only after the United States abandoned its earlier restraint and began vigorous pursuit of an ABM system did Soviet views about the value of ballistic missile defense begin to change. Without this U.S. military effort, it is doubtful that we would have been able to negotiate the ABM Treaty." (Emphasis added.)<sup>69</sup>

### 2. It doesn't provide for verification

Another flaw in Mr. Warnke's "mutual restraint" theory, and in my view a fatal one, is that it fails to include provisions for verification.

Mr. Warnke cites President Kennedy's use of unilateral restraint prior to the 1973 Test Ban Treaty. But President Kennedy was not a fan of uninspected mutual restraint.

In a March 2, 1962 television address, President Kennedy spoke to the Nation about "Nuclear Testing and Disarmament." In that speech, he said in part:

" . . . [T]his Nation has long urged an effective worldwide end to nuclear tests. And this is why in 1958 we voluntarily subscribed, as did the Soviet Union, to a nuclear test moratorium, during which neither side would conduct new nuclear tests, and both East and West would seek concrete plans for their control.

But on September first of last year . . . the Soviet Union callously broke its moratorium with a two-month series of tests of more than 40 nuclear weapons. Preparations for these tests had been secretly underway for many months. . . . As new disarmament talks approach, the basic lesson of some three years and 353 negotiating sessions at Geneva is this—that the Soviets will not agree to an effective ban on nuclear tests as long as a new series of offers and prolonged negotiations, or a new uninspected moratorium, or a new agreement without controls, would enable them once again to prevent the West from testing while they prepare in secret . . .

On the 14th of March, in Geneva, Switzerland, a new 18-power conference on disarmament will begin. . . . The United States will offer at the Geneva conference . . . a series of concrete plans for a major 'breakthrough to peace.' . . . [W]e shall . . . present once again our proposals for a separate comprehensive treaty—with appropriate arrangements for detection and verification—to halt permanently the testing of all nuclear weapons, in every environment. . . . But this must be a fully effective treaty. We know now enough about broken negotiations, secret preparations, and the advantages gained from a long test series never to offer again an unsupervised moratorium. . . . In short, in the absence of a firm agreement that would halt nuclear tests by the latter part of April, we shall go ahead with our talks—striving for some new avenue of agreement—but we shall also go ahead with our tests.

" . . . [I]f they [the Soviets] persist in rejecting all means of true inspection, then we shall be left with no choice but to keep our own defensive arsenal adequate for the security of all free men." (Emphasis added.)<sup>70</sup>

More than any exercise of unilateral restraint, it seems to me, it was President Kennedy's refusal to rely on unverifiable moratoria that led to the 1963 Test Ban Treaty.

### 3. Warnke refutes Warnke

Even Mr. Warnke now appears to recognize the importance of verification. Consider, for example, these excerpts from his testimony during his confirmation hearings:

" . . . [A]ny measures of arms limitation that are pursued must be soundly conceived and any agreements that are reached must be adequately verifiable."<sup>71</sup>

"We obviously have to make sure in any agreement that there is adequate provision for verification."<sup>72</sup>

"I think . . . that an agreement which is

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not verifiable is worse than no agreement. It is a source of instability rather than stability." (Emphasis added.)<sup>73</sup>

"... I say if you're going to get an arms control agreement, you have to have one that does not rely on trust, but which is, in fact, solid and verifiable."<sup>74</sup>

Toward the end of his testimony, Mr. Warnke appeared so concerned with verification that he advocated on-site inspection—a condition which the Soviets have consistently and adamantly refused to consider at SALT.

"Senator HATCH. What verification procedures would you insist on as a negotiator?"

Mr. WARNKE. I would think that some measure of on-site inspection will become necessary when you reach the point of getting genuine arms control. Now, I think that the Soviet Union would have to recognize that there would have to be what they would regard as more intrusive methods than they were prepared to accept in the past. Now, whether or not they will accept those kinds of measures, I don't know; but that would be part, it seems to me, of the precondition of having any kind of effective arms control regime." (Emphasis added.)<sup>75</sup>

How could Mr. Warnke urge unilateral restraint and yet insist upon adequate verification? His apparent solution was to abandon the position that has been his hallmark for half a decade—his support of unilateral restraint, outside of the formal negotiating process. (It should be recalled that the SALT and MBFR talks have been in progress since 1972 and 1973, respectively.)

Consider these excerpts from his confirmation hearing:

"I would think that any concrete measures of parallel restraint would have to be part of the negotiating package, rather than being in any sort of informal context."<sup>76</sup>

"Senator HATCH. Would you cut back on our forces without a corresponding cutback by them [the Soviets]?"

Mr. WARNKE. Of course not; no."<sup>77</sup>

"Mr. WARNKE. . . . [When you are at a time of active negotiations, I would not advocate taking any sort of restraint action except on the basis of concrete measures of parallel restraint which had been talked out with the Soviet Union. In other words, I do not think that in a negotiating context that I would advocate the kind of approach that I suggested in my 1975 ["Apes on a Treadmill"] article.

Senator JAVITS Well, give us that again. You would not advocate that, and why not?"

Mr. WARNKE. Because if you were actively negotiating with the Soviet Union, it would strike me as being poor negotiating tactics to take a unilateral, not previously announced initiative of that kind. I would think that under those circumstances, you would discuss with the Soviet Union what would you do if I did such and such and get some kind of understanding from them in advance."<sup>78</sup>

If this represents genuine conversion on the part of Mr. Warnke, I am as pleased as I am surprised. However, I can't help but wonder what brought about this strange and sudden transformation.

Even if we conclude that Mr. Warnke has in fact abandoned his previous stance, other questions come to mind.

Was it the new—or the old—Warnke that President Carter really wanted when he nominated a SALT negotiator?

To avoid sending the wrong signals—which can confuse both Moscow and our allies—would it not make more sense to select a negotiator who had a more consistent record on arms control? Or, falling this, a negotiator with no public record at all?

#### IV. ONE TOO MANY HATS

One final aspect of this dual nomination needs our consideration.

Is it in America's interest to have one person hold both the position of ACDA Director and head of the SALT delegation?

I believe the case against one person wearing both hats was well presented in a recent

editorial by the Detroit Free Press, which reads in part:

"The Carter administration has put together a strong team to deal with arms control, which the president has given high priority. The latest choice is Paul Warnke, a Pentagon veteran who has been considered for secretary of state and secretary of defense. Mr. Warnke will head the U.S. Arms Control and Disarmament Agency (ACDA), which has never been allowed to rise to its full potential as a major government agency . . . .

But we have reservations about a second aspect of the Warnke selection. He also will directly negotiate with the Soviet Union for arms limitation. The two tasks may seem to go hand in hand, but the risk is that some of ACDA's potential usefulness will be lost because Mr. Warnke will wear two hats.

The reason is that ACDA has a dual function: to be a part of the president's team in evaluating arms control and national security matters, and also to be an advocate of arms reduction. That second role has been badly underplayed. . . .

Perhaps Mr. Warnke will develop that strength in ACDA. But it is hard to imagine ACDA's criticizing some aspect of U.S.-Soviet arms talks if Mr. Warnke himself is the chief figure in those talks.

We fully appreciate Mr. Warnke's qualities and his experience. But we wish President Carter had chosen him for one or the other of these two tasks." (Emphasis added.)<sup>79</sup>

#### V. CONCLUSION

I am forced to conclude that the Senate should not consent to the nomination of Paul C. Warnke as Ambassador during his term as Director of the Arms Control and Disarmament Agency.

Although Mr. Warnke has been an eloquent exponent of significant reductions in the nuclear arms race, the approach he has advocated is incompatible with American security interests and may indeed act as a barrier to a meaningful SALT II accord.

As the record reveals:

Mr. Warnke has opposed consistently and emphatically for many years almost every U.S. strategic initiative, some of which are crucial issues at SALT.

Not until now, with his confirmation pending, has he seen fit suddenly to repudiate a number of his long-standing positions—creating at the very least serious doubts about his credibility as a negotiator.

He has advocated a policy of unilateral American restraint on strategic arms—a policy which not only has failed dismally in the past, but which could encourage the Soviets to drag their feet in formal arms control negotiations.

He has urged major cutbacks in both U.S. strategic and conventional forces, which could signal to our allies a weakening of our defense commitments, and could even encourage aggression by our enemies.

Quite clearly, President Carter can find someone else for this crucial position whose record is more consistent and whose philosophy toward arms control is more compatible with American objectives.

Beyond that, there are compelling reasons why no one person should be both ACDA director and SALT negotiator. Not only are both full-time jobs, but the ACDA director's role as disarmament advocate is potentially in conflict with the SALT negotiator's obligation to obtain the best possible bargain from the U.S. national security perspective.

The President should withdraw Mr. Warnke's nomination to be Ambassador and submit another nominee for the Senate's consideration. Failing that, I believe the Senate should reject Mr. Warnke for that job.

The issues at stake in the SALT negotiations are far too important, and the unavoidable problems too many, to unnecessarily interject any further possible barriers to the

prompt conclusion of a meaningful strategic arms control agreement.

As Mr. Warnke himself has noted:

"... [N]o arms control policy can succeed unless it has the solid support of the American people as expressed through their elected representatives."<sup>80</sup>

It is already apparent that significant opposition exists in the Senate to this nomination.

Given the importance the American people place on securing an equitable and verifiable SALT II Treaty—which, like all treaties, would require the support of two-thirds of the Senate before ratification—I would hope that President Carter would view anything short of overwhelming Senate confirmation of Mr. Warnke as a signal to reconsider and withdraw his nomination.

Report filed: February 25, 1977.

#### FOOTNOTES

<sup>1</sup> For a discussion of the difficulties involved in trying to verify restrictions on cruise missiles, see my remarks on the subject in the *Congressional Record*, May 28, 1976, beginning on page 15621.

<sup>2</sup> Testimony to Senate Foreign Relations Committee, June 28, 1972, p. 184.

<sup>3</sup> Testimony to Senate Foreign Relations Committee, February 8, 1977, p. 44.

<sup>4</sup> *Ibid.*, p. 66.

<sup>5</sup> *Ibid.*, pp. 82-83.

<sup>6</sup> Testimony to Senate Armed Services Committee, July 17, 1973, p. 5867.

<sup>7</sup> This exchange occurred on February 24, 1976, and was inserted in the *Congressional Record*, June 15, 1976, p. 18218.

<sup>8</sup> *Aviation Week & Space Technology*, February 21, 1977, p. 20.

<sup>9</sup> Testimony to Senate Foreign Relations Committee, February 8, 1977, p. 54.

<sup>10</sup> *Ibid.*, p. 67.

<sup>11</sup> Testimony to Senate Foreign Relations Committee, June 28, 1972, p. 183.

<sup>12</sup> Testimony to Senate Appropriations Committee, May 30, 1974, p. 29.

<sup>13</sup> Testimony to Senate Foreign Relations Committee, February 8, 1977, p. 54.

<sup>14</sup> *Ibid.*, p. 28.

<sup>15</sup> *Ibid.*, pp. 28, 44.

<sup>16</sup> Testimony to Senate Foreign Relations Committee, June 28, 1972, p. 183; Testimony to Senate Armed Services Committee, July 17, 1973, p. 5871.

<sup>17</sup> Testimony to Senate Appropriations Committee, May 30, 1974, pp. 67-68.

<sup>18</sup> *Ibid.*, p. 68.

<sup>19</sup> Testimony to Senate Foreign Relations Committee, February 8, 1977, p. 55.

<sup>20</sup> Testimony to Senate Foreign Relations Committee, March 14, 1974, pp. 57, 64, 65.

<sup>21</sup> The following exchange occurred during a UPI interview with Secretary Vance (State Department Press Release No. 37, February 3, 1977, p. 5): "Q. But you don't agree with him [Warnke], I gather, on the question of a unilateral withdrawal of some nuclear forces from Europe? At least some statements he is associated with? A. What I said on that—I think it would be inappropriate at this time to withdraw our tactical nuclear forces or weapons from Europe. That issue is already a subject which is on the table in the MBFR discussions, and it doesn't make sense to me to take such a step while it is currently under negotiation in the larger context of the MBFR talks."

<sup>22</sup> Testimony to Senate Foreign Relations Committee, February 8, 1977, p. 57.

<sup>23</sup> *Washington Post*, May 14, 1974.

<sup>24</sup> See for example Mr. Warnke's testimony to the Senate Appropriations Committee, May 30, 1974, p. 22.

<sup>25</sup> Paul C. Warnke and Leslie H. Gelb, "Security or Confrontation: The Case for a Defense Policy," *Foreign Policy*, Winter 1970-1971, p. 27.

<sup>26</sup> Testimony to Senate Appropriations Committee, May 30, 1974, p. 22.

<sup>27</sup> Testimony to Senate Armed Services Committee, July 17, 1973, p. 5859.

<sup>28</sup> *Ibid.*, p. 5868.

<sup>20</sup> *Ibid.* p. 5858.

<sup>21</sup> Testimony to Senate Appropriations Committee, May 30, 1974, p. 22.

<sup>22</sup> Testimony to House Budget Committee, September 11, 1975, pp. 79-80.

<sup>23</sup> Donald H. Rumsfeld, *Annual Defense Department Report, FY 1978*, p. 11.

<sup>24</sup> *Ibid.*, p. 23; General George S. Brown, *United States Military Posture for FY 1978*, p. 63; International Institute for Strategic Studies, *The Military Balance 1976-1977*, p. 101.

<sup>25</sup> Brown, *United States Military Posture for FY 1978*, p. 63; *Parade* magazine, February 6, 1977.

<sup>26</sup> Testimony to Senate Foreign Relations Committee, February 8, 1977, pp. 57-58.

<sup>27</sup> Testimony to Senate Appropriations Committee, May 30, 1974, pp. 65-66.

<sup>28</sup> *Ibid.* p. 71.

<sup>29</sup> International Institute for Strategic Studies, *The Military Balance 1976-1977*, p. 83.

<sup>30</sup> Testimony to Senate Appropriations Committee, May 30, 1974, p. 19.

<sup>31</sup> *Ibid.* pp. 66-67.

<sup>32</sup> *New York Times*, August 24, 1972.

<sup>33</sup> Testimony to Senate Budget Committee, August 22, 1974, p. 302.

<sup>34</sup> Testimony to Senate Appropriations Committee, May 30, 1974, p. 34.

<sup>35</sup> Testimony to Senate Foreign Relations Committee, February 8, 1977, p. 26.

<sup>36</sup> Paul C. Warnke, "National Security: Are We Asking the Right Questions?", *Washington Monthly*, October 1969, reprinted in the *Congressional Record*, November 25, 1969, p. H. 11375.

<sup>37</sup> Testimony to Senate Foreign Relations Committee, July 13, 1971, p. 205.

<sup>38</sup> Testimony to Senate Foreign Relations Committee, June 28, 1972, pp. 179-180.

<sup>39</sup> Debate between Senator James L. Buckley and Paul C. Warnke, published under the title, *Strategic Sufficiency: Fact or Fiction?* (Washington, D.C.: American Enterprise Institute, 1972) p. 21.

<sup>40</sup> This exchange occurred during Mr. Warnke's confirmation hearing (after I had already indicated that I had read his 1972 testimony):

"Senator GRIFFIN. Could you summarize what your concerns were then [i.e., in 1972] about SALT I?"

Mr. WARNKE . . . I was concerned about a number of things. I was concerned, first of all, about the numerical disparity because it seemed to me that that made the agreement perceptually vulnerable. Any agreement which appears to give the Soviet Union a numerical lead is not one which is going to be very well received by our friends."

This exchange appears on page 45 of the hearing transcript. The fact remains that even this version bears no resemblance to Mr. Warnke's actual testimony before the Foreign Relations Committee on 1972. That testimony is reprinted on pages 47-54 of the hearings.

<sup>41</sup> Testimony to Senate Foreign Relations Committee, February 8, 1977, p. 84.

<sup>42</sup> *Ibid.*

<sup>43</sup> Testimony to Senate Appropriations Committee, May 30, 1974, p. 61.

<sup>44</sup> Paul C. Warnke, "Apes on a Treadmill," *Foreign Policy*, Spring, 1975, p. 14.

<sup>45</sup> Testimony to House Budget Committee, September 11, 1975, p. 62.

<sup>46</sup> *Congressional Record*, June 15, 1976, p. H. 5923.

<sup>47</sup> Paul C. Warnke, "In the New International Climate, Should We Reassess Old Alliances?", *The Center Magazine*, November-December 1973, p. 79.

<sup>48</sup> Testimony to Senate Appropriations Committee, May 30, 1974, p. 56.

<sup>49</sup> Anyone having doubts about this point might review the many press accounts of the nomination of Mr. Warnke, such as those in the *New York Times* (January 31, 1977, p. 9), and the *Washington Post* (February 1, 1977, p. A2).

<sup>50</sup> Testimony to Senate Foreign Relations Committee, June 28, 1972, pp. 182-183.

<sup>51</sup> Testimony to Senate Appropriations Committee, May 30, 1974, p. 19.

<sup>52</sup> Testimony to Senate Budget Committee, August 22, 1974, p. 976.

<sup>53</sup> Warnke, "Apes on a Treadmill," pp. 27-28.

<sup>54</sup> *Congressional Record*, June 15, 1976, p. H. 5924.

<sup>55</sup> *U.S. News & World Report*, April 12, 1965, reprinted in *Congressional Record*, April 7, 1965, p. S. 7271.

<sup>56</sup> Department of State *Bulletin*, May 17, 1965, pp. 773-774.

<sup>57</sup> Testimony to Senate Foreign Relations Committee, January 14, 1977.

<sup>58</sup> Central Intelligence Agency, "A Dollar Cost Comparison of Soviet and U.S. Defense Activities, 1966-1976," SR 77-10001U, January 1977 (Unclassified), pp. 9, 11.

<sup>59</sup> Donald H. Rumsfeld, *Annual Defense Department Report, FY 1978*, p. 18; Letter from Joint Chiefs of Staff to Senator William Proxmire, dated January 28, 1977, p. 6.

<sup>60</sup> U.S. Arms Control and Disarmament Agency, *Arms Control Report, 15th Annual Report to the Congress*, July, 1976, pp. 25-28.

<sup>61</sup> John F. Kennedy, *Public Papers*, 1962, pp. 186-192.

<sup>62</sup> Testimony to Senate Foreign Relations Committee, February 8, 1977, p. 18.

<sup>63</sup> *Ibid.* p. 40.

<sup>64</sup> *Ibid.* p. 90.

<sup>65</sup> *Ibid.* p. 68.

<sup>66</sup> *Ibid.* p. 90.

<sup>67</sup> *Ibid.* p. 64.

<sup>68</sup> *Ibid.* p. 89.

<sup>69</sup> *Ibid.* p. 28.

<sup>70</sup> *Detroit Free Press*, February 6, 1977.

<sup>71</sup> Testimony to Senate Foreign Relations Committee, February 8, 1977, p. 19.

#### AUTHORITY FOR THE SECRETARY OF THE SENATE TO RECEIVE AND REFER MESSAGES

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that during the recess of the Senate over until 3 p.m. on Tuesday next, the Secretary of the Senate be authorized to receive and to refer messages from the House of Representatives and/or from the President of the United States.

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

#### AUTHORITY FOR THE SIGNING OF DULY ENROLLED BILLS AND JOINT RESOLUTIONS

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that during the recess of the Senate over until 3 p.m. on Tuesday next, the Vice President of the United States, the President pro tempore of the Senate, the Acting President pro tempore of the Senate, and the Deputy President pro tempore of the Senate be authorized to sign all duly enrolled bills and joint resolutions.

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

#### AUTHORITY FOR SUBMISSION OF CERTAIN RECORD MATERIAL TODAY

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that all Senators may have until 5 p.m. today to introduce statements, bills, resolutions, petitions, and memorials in the RECORD.

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

#### ORDER FOR THE RECOGNITION OF SENATOR SCOTT AND SENATOR CRANSTON AND FOR TRANSACTION OF ROUTINE MORNING BUSINESS ON TUESDAY, MARCH 1, 1977

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent, on behalf of Mr. Scott of Virginia, that on Tuesday next, after the two leaders or their designees have been recognized under the standing order, that he be recognized for not to exceed 15 minutes.

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

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that following the remarks of Mr. Scott of Virginia on Tuesday next, the distinguished Senator from California (Mr. CRANSTON) be recognized for not to exceed 15 minutes.

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

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that on Tuesday next, after the orders for the recognition of Senators have been consummated, there be a brief period for the transaction of routine morning business of not to exceed 30 minutes, with statements limited therein to 10 minutes each, for the purpose only of the introduction of bills, resolutions, petitions, memorials, and statements into the RECORD, and with no resolutions coming over under the rule.

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

Mr. BAKER. 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. ALLEN. 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.

#### W. M. "BILL" BROWN—1976 MAN OF THE YEAR IN AGRICULTURE

Mr. ALLEN. Mr. President, Bill Brown, of Atmore, Ala., has been named 1976 Man of the Year in Service to Alabama Agriculture, by *Progressive Farmer* magazine.

It is fitting that this outstanding Alabamian has been given this honor. Bill Brown is a man with conviction and determination, who has shown what practical application of a vision combined with hard work can do. He operates a cattle farm which has become literally a "showplace" visited by hundreds of cattlemen and farmers yearly.

I ask unanimous consent that the article from the February 1977, issue of the *Progressive Farmer*, telling Bill's success story, be printed in the RECORD.

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

#### W. M. "BILL" BROWN—1976 MAN OF THE YEAR IN SERVICE TO ALABAMA AGRICULTURE

It's doubtful that anyone, professional agricultural worker or farmer, is a more vocal

or persistent champion of Alabama and the Southeast than is W. M. (Bill) Brown of Atmore, Ala.

His fervor and enthusiasm are based on the belief that we have an advantage enjoyed by no other section of the country—the ability to produce untold amounts of grass and forage for cattle. His dream is to see this ability translated into grasses that grow 12 months of the year. For, as he sees it, "Even those of us who are full-time farmers are getting only part-time production because we're not working our land all year long."

The story Brown tells with greatest conviction is how he can make as much net profit per acre by growing grass and corn silage and feeding these forages to cattle as he could growing row crops.

People listen closely when Brown talks. That's because they know he's talking about realities, not dreams. These realities have been experienced on his own farm in South Alabama.

Brown gets more invitations for speaking engagements than he can comfortably handle.

Hundreds of visitors stop by his farm each year too. "Seldom does a month go by without a visiting tour group," he says.

Some of these visits have been generated by articles in *Progressive Farmer* about his operation—articles about his grain handling facilities, his contract backgrounding operation, his custom feedlot venture, his winter grazing, and his double-cropping successes. But the tour groups really started pouring in after Southern Railway's agricultural tour bus started making Brown's farm a regular stop on its itinerary and after a group of Ohio cattle feeders stopped by. The latter visit kicked off his cattle backgrounding operation.

Many of his speaking engagements are related to his position as Southeast representative on the Cattle-fax board of directors for the American National Cattlemen's Association. In addition, he was 1973 president of the Alabama Cattlemen's Association and has been featured speaker at annual meetings of cattlemen's associations in several other states. You can safely bet that, in addition to promoting cattle, he promotes Alabama wherever he goes.

Visitors, though, probably are a bigger drain on his time than are his speaking engagements. These visitors come because they want to see for themselves just how Brown is proving the wisdom of carrying calves to heavier weights on his own farm instead of selling them as lightweights.

They want to see why he's so sincere when he says, "Winter pasture planted in the fall of the year is our best crop." They want to see how he gets full production from each acre by coming back on that same land with a crop of corn or soybeans the next spring. And they want to see how he finishes his own cattle in the feedlot on silage plus a small amount of grain.

During the past few years, Bill and his wife Jeanette have started keeping a guest register for tour groups. But there's little time to keep up with the many drop-in visitors who come alone or with a couple of others.

Perhaps one reason the Browns are such gracious hosts to visitors is that they have done their share of visiting too. As a result of a visit by the Browns to a Western cattle feeder in 1964, they got started in the business of finishing out their own cattle on silage. There's another reason. Brown puts it very simply: "The cattle business has been good to me and my family. I've never lost faith in it."

But the real reason for our success is that we have had opportunities to travel to other states and see what was going on. And we have been able to put a lot of those ideas to work on our farm. Sure, we gave a little time and gave a little work free, but that's

how we got our chance to travel and visit others."

As might be expected, demands on Brown's time continue to grow. He's just been named to serve as chairman of Auburn University's Agricultural Advisory Council. We feel certain every farmer in Alabama will continue to benefit from dreams that he helps push to reality.

We are pleased to name Bill Brown as 1976 Man of the Year in Service To Alabama Agriculture.

#### PROPOSED \$50 TAX REBATE

Mr. ALLEN. On another subject, Mr. President, even though our gross national product is at an all-time high, some 10 million Americans are without work. Some form of economic stimulus, costing over 30 billion dollars over a 2-year period is certain to pass in Congress. Thus, we are moving further away from a balanced budget. My objection to the approach being used is, first, that too little emphasis is being placed on creating permanent jobs in the private sector and too much emphasis is being placed on "make-work" types of public service jobs, and, second, that the proposal to shower \$50 bills on every man, woman, and child in the country—apparently to be modified somewhat in Congress—at a cost to the taxpayers of some \$11.4 billion in borrowed money, is not sound. For this temporary relief, with its inflationary impact, the American taxpayer would be called on to pay an interest bill of some \$900 million each and every year until Gabriel blows his horn. That is the price we are paying for this temporary relief possibly lasting a few weeks and showering \$50 bills on the people of this country.

Now few are willing to oppose Santa Claus, but my view of what is right and sound demands that I do so, and certainly when this measure comes before the Senate that would be my position.

#### RECESS TO TUESDAY, MARCH 1, 1977 AT 3 P.M.

Mr. ROBERT C. BYRD. Mr. President, if there be no further business to come before the Senate, I move, in accordance with the order previously entered, that the Senate stand in recess until the hour of 3 p.m. on Tuesday next.

The motion was agreed to; and at 2:46 p.m. the Senate recessed until Tuesday, March 1, 1977, at 3 p.m.

#### NOMINATIONS

Executive nominations received by the Senate February 25, 1977:

##### DEPARTMENT OF DEFENSE

Gerald Paul Dinneen, of Massachusetts, to be an Assistant Secretary of Defense, vice Albert C. Hall, resigned.

David E. McGiffert, of the District of Columbia, to be an Assistant Secretary of Defense, vice Eugene V. McAuliffe, resigning.

John McGrath Sullivan, of Pennsylvania, to be an Assistant Secretary of Defense, vice David P. Taylor, resigned.

##### DEPARTMENT OF COMMERCE

Jerry Joseph Jasinowski, of the District of Columbia, to be an Assistant Secretary of Commerce, vice Richard G. Darman, resigned.

#### CONFIRMATIONS

Executive nominations confirmed by the Senate February 25, 1977:

##### VETERANS' ADMINISTRATION

Joseph Maxwell Cleland, of Georgia, to be Administrator of Veterans' Affairs.

##### ACTION AGENCY

Samuel Winfred Brown, Jr., of Colorado, to be Director of the ACTION Agency.

The above nominations were approved subject to the nominees' commitments to respond to requests to appear and testify before any duly constituted committee of the Senate.

##### IN THE AIR FORCE

The following officer to be placed on the retired list in the grade indicated under the provisions of section 8962, title 10 of the United States Code:

##### To be general

Gen. Paul K. Carlton, [redacted] FR (major general, Regular Air Force), U.S. Air Force.

The following officer to be placed on the retired list in the grade indicated under the provisions of section 8962, title 10 of the United States Code:

##### To be general

Gen. Louis L. Wilson, Jr., [redacted] FR (major general, Regular Air Force), U.S. Air Force.

##### IN THE ARMY

The following-named officers for appointment in the Regular Army of the United States to the grade indicated, under the provisions of title 10, United States Code, sections 3284 and 3306:

##### To be brigadier general

Brig. Gen. John C. Faith, [redacted] Army of the United States (colonel, U.S. Army).

Brig. Gen. Emil L. Konopnicki, [redacted] Army of the United States (colonel, U.S. Army).

Brig. Gen. Paul M. Timmerberg, [redacted] Army of the United States (colonel, U.S. Army).

Brig. Gen. Charles K. Heiden, [redacted] Army of the United States (colonel, U.S. Army).

Brig. Gen. Hillman Dickinson, [redacted] Army of the United States (colonel, U.S. Army).

Brig. Gen. Sinclair L. Melner, [redacted] Army of the United States (colonel, U.S. Army).

Lt. Gen. Marvin D. Fuller, [redacted] Army of the United States (colonel, U.S. Army).

Brig. Gen. Phillip Kaplan, [redacted] Army of the United States (colonel, U.S. Army).

Brig. Gen. Jere W. Sharp, [redacted] Army of the United States (colonel, U.S. Army).

Brig. Gen. Charles P. Graham, [redacted] Army of the United States (colonel, U.S. Army).

Brig. Gen. Lucien E. Bolduc, Jr., [redacted] Army of the United States (colonel, U.S. Army).

Brig. Gen. Louis W. Prentiss, Jr., [redacted] Army of the United States (colonel, U.S. Army).

Brig. Gen. Jack V. Mackmull, [redacted] Army of the United States (colonel, U.S. Army).

Brig. Gen. John B. Blount, [redacted] Army of the United States (colonel, U.S. Army).

Brig. Gen. James H. Merryman, [redacted] Army of the United States (colonel, U.S. Army).

##### IN THE NAVY

The following-named captains of the line of the Navy for temporary promotion to the

grade of rear admiral, subject to qualification therefor as provided by law:

Karl J. Christoph, Jr.	Thomas M. Hopkins
James H. Webber	James W. Lisanby
Grover M. Yowell	William G. Sizemore
Warren C. Hamm, Jr.	Edwin Barrineau
Robert W. Carius	Jack F. O'Hara
James A. Winnefeld	Crawford A.
Paul A. Lautermilch, Jr.	Easterling
Thomas R.	Thomas M. Ward, Jr.
Kinnebrew	Daniel G.
Henry J. Davis, Jr.	McCormick III
Alexander M. Sinclair	Frederick G. Fellowes, Jr.
Huntington Hardisty	Milton P. Alexich
Floyd H. Miller, Jr.	Curtis B. Shellman, Jr.
Albert J. Baciocco, Jr.	David S. Cruden
Arthur S. Moreau, Jr.	Clyde R. Bell
Charles O. Prindle	Bernard M. Kauderer
Lowell F. Eggert	Frederick C. Johnson
Samuel W. Hubbard, Jr.	Conrad J. Rorie

The following-named officers of the Naval Reserve for temporary promotion to the grade of rear admiral subject to qualification therefor as provided by law:

Joseph Louis Loughran	LINE	Samuel Amspoker
Herbert Marvin Bridge		Cummins
		Martin Joseph Andrew

MEDICAL CORPS  
Matthias Henry Backer, Jr.

SUPPLY CORPS  
William Alvin Armstrong  
CIVIL ENGINEER CORPS  
Peter Ross Brown

DENTAL CORPS  
William James Hughey Vaughn  
IN THE MARINE CORPS

The following-named officers of the Marine Corps for temporary appointment to the grade of major general:

Warren R. Johnson	William B. Fleming
Calhoun J. Killeen	Charles G. Cooper
Edward J. Megarr	John K. Davis

The following-named officers of the Marine Corps for temporary appointment to the grade of brigadier general:

Alexander P. McMillan	George B. Crist
Vincente T. Blaz	Dwayne Gray
David B. Barker	Albert E. Brewster, Jr.
William A. Scott, Jr.	Richard A. Kuci
Lawrence R. Seamon	Ernest C. Cheatham, Jr.
Thomas R. Morgan	John V. Cox

IN THE AIR FORCE  
Air Force nominations beginning Richard F. Abel, to be colonel, and ending Marion J.

Stansell, to be colonel, which nominations were received by the Senate and appeared in the Congressional Record on January 31, 1977.

Air Force nominations beginning Richard A. Ames, to be colonel, and ending Dan C. Mills, to be colonel, which nominations were received by the Senate and appeared in the Congressional Record on January 31, 1977.

IN THE ARMY

Army nominations beginning Nathan W. Adamson, Jr., to be colonel, and ending John C. Henry, to be lieutenant colonel, which nominations were received by the Senate and appeared in the Congressional Record on January 31, 1977.

Army nominations beginning Peter A. Becque, to be lieutenant colonel, and ending Alan M. Kimball, to be first lieutenant, which nominations were received by the Senate and appeared in the Congressional Record on February 1, 1977.

IN THE MARINE CORPS

Warrant Officer Truman W. Crawford, USMC, for appointment to the grade of Captain (temporary) while serving as the Director of the Marine Corps Drum and Bugle Corps, which nomination was received by the Senate and appeared in the Congressional Record on January 31, 1977.

EXTENSIONS OF REMARKS

SENATE COMMITTEE MEETINGS SCHEDULED

Title IV of Senate Resolution 4, agreed to by the Senate on February 4, 1977, calls for establishment of a system for a computerized schedule of all meetings and hearings of Senate committees, subcommittees, joint committees, and committees of conference. This title requires all such committees to notify the Office of the Senate Daily Digest—designated by the Rules Committee—of the time, place, and purpose of all meetings when scheduled, and any cancellations or changes in meetings as they occur.

As an interim procedure beginning February 21, and until the computerization of this information becomes operational, the Office of the Senate Daily Digest will prepare such information daily for printing in the Extensions of Remarks section of the CONGRESSIONAL RECORD.

Any changes in committee scheduling will be indicated by placement of an asterisk to the left of the name of the unit conducting such meetings.

The schedule follows:

SCHEDULED MEETINGS  
FEBRUARY 28

9:00 a.m.  
Agriculture, Nutrition, and Forestry  
To resume hearings on proposed legislation to amend and extend the Agriculture and Consumer Protection Act.  
Until: Noon 322 Russell Building

9:30 a.m.  
Human Resources  
Subcommittee on the Handicapped  
To resume hearings to review programs for handicapped persons.  
4232 Dirksen Building

10:00 a.m.  
\*Armed Services  
To hear Paul C. Warnke testify and answer questions in behalf of his nomination to serve as Director of ACDA, with the rank of Ambassador.  
1114 Dirksen Building

Banking, Housing, and Urban Affairs  
Subcommittee on International Finance  
To resume hearings on S. 69 and 92, to amend and extend the Export Administration Act, including provisions on anti-boycott and nuclear proliferation.  
5302 Dirksen Building

Environment and Public Works  
To hold hearings to review Presidential budget requests for fiscal year 1978 for the Environmental Protection Agency.  
4200 Dirksen Building

Energy and Natural Resources  
To hold hearings on the nominations of James A. Joseph, to be Under Secretary of the Interior, and Leo M. Krulitz, to be Solicitor, Department of the Interior.  
3110 Dirksen Building

Select Small Business  
To resume hearings on problems of U.S. supplemental air carriers, including charter regulations, applications for low-cost scheduled service, discriminatory enforcement of CAB rules, and military airlift contract procedures.  
6202 Dirksen Building

11:00 a.m.  
Select Indian Affairs  
Business meeting on committee organization.  
1150 Dirksen Building

Special Aging  
Business meeting on committee organization.  
4221 Dirksen Building

Appropriations  
Subcommittee on Labor-Health, Education, and Welfare  
To hold hearings to receive testimony on proposed supplemental appropriations for the Department of Health, Education, and Welfare, to hear testimony on certain health programs and on special benefits for disabled coal miners.  
S-128, Capitol

Appropriations  
Defense Subcommittee  
To hold hearings on several pending proposed rescissions of budget authority for the defense establishment.  
S-126, Capitol

Appropriations  
Subcommittee on Public Works  
To hold hearings on proposed budget estimates for fiscal year 1978 for public works projects for the North Atlantic Division and the New England Division.  
S-146, Capitol

Conferees  
On S. Con. Res. 10, revising the congressional budget for the Federal Government for fiscal year 1977.  
S-207, Capitol

MARCH 1

9:00 a.m.  
Agriculture, Nutrition, and Forestry  
To continue hearings on proposed legislation to amend and extend the Agriculture and Consumer Protection Act.  
Until: Noon 322 Russell Building

9:30 a.m.  
Appropriations  
Interior Subcommittee  
To hold hearings on supplemental appropriations for fiscal year 1977 for the Department of the Interior and related activities.  
1114 Dirksen Building

10:00 a.m.  
Appropriations  
Defense Subcommittee  
To resume hearings on proposed budget estimates for fiscal year 1978 for the defense establishment to hear Air Force witnesses.  
1223 Dirksen Building

Appropriations  
Labor-HEW Subcommittee  
To hold hearings on proposed supplemental appropriations for fiscal year 1977 for the Office of Education.  
S-128, Capitol

Appropriations  
Treasury, Postal Service, and General Government Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the Department of the Treasury to hear Secretary Blumenthal.  
1318 Dirksen Building

Armed Services  
To receive a report from General Alex-

ander Halg, Supreme Allied Commander in Europe for NATO and Commander-in-Chief of United States Forces in Europe, on the status of United States and Allied military forces and the NATO situation generally.

5110 Dirksen Building

Commerce, Science and Transportation Subcommittee on Science and Space  
To resume hearings on S. 365, authorizing funds for fiscal year 1978 for the National Aeronautics and Space Administration.

235 Russell Building

Energy and Natural Resources Subcommittee on Minerals, Materials and Fuels

To resume hearings on S. 7, to establish in the Department of the Interior an Office of Surface Mining Reclamation and Enforcement to administer programs to control surface coal mining operations.

3110 Dirksen Building

Finance

To consider committee recommendations to the Budget Committee on the fiscal year 1978 budget in accordance with the Congressional Budget Act.

2221 Dirksen Building

Human Resources

Subcommittee on Health and Scientific Research

To hold hearings on proposed legislation authorizing funds for the National Science Foundation for fiscal year 1978.

4232 Dirksen Building

10:30 a.m.

Foreign Relations

To consider pending nominations and other committee business.

4221 Dirksen Building

11:00 a.m.

Banking, Housing, and Urban Affairs

To consider S. 756, proposing the extension of the authority for the flexible regulation of interest rates on deposits and accounts in depository institution (Regulation Q).

5302 Dirksen Building

2:00 p.m.

Appropriations

Labor-HEW Subcommittee

To hold hearings on proposed supplemental appropriations for fiscal year 1977 for the Office of Education and on welfare programs.

S-126, Capitol

Appropriations

Legislative Subcommittee

To hold hearings on proposed budget estimates for fiscal year 1978 for the Library of Congress and the Copyright Royalty Tribunal.

S-128, Capitol

Appropriations

Treasury, Postal Service, and General Government Subcommittee

To hold hearings on proposed budget estimates for fiscal year 1978 for the U.S. Customs Service and Federal Law Enforcement Training Center.

1318 Dirksen Building

Armed Services

Tactical Air Power Subcommittee

To hold hearings on proposed military program authorizations for fiscal year 1978 for tactical weapons modernization program.

224 Russell Building

3:00 p.m.

Foreign Relations

To receive a briefing in closed session from Secretary of State Vance on his recent trip to the Middle East.

S-116, Capitol

5:00 p.m.

Joint Defense Production

Business meeting to discuss committee organization.

Until: 6 p.m.

EF-100, Capitol

MARCH 2

9:30 a.m.

Appropriations

Interior Subcommittee

To hold hearings on supplemental appropriations for fiscal year 1977 for the Department of the Interior and related activities.

1114 Dirksen Building

Environmental and Public Works

To hold hearings to review Presidential budget requests for fiscal year 1978 for the Economic Development Administration, the Appalachian Regional Commission, and the General Services Administration.

4200 Dirksen Building

Human Resources

\*Subcommittee on the Handicapped

To hold hearings on S. 725, authorizing funds through fiscal year 1982, for certain education programs for handicapped persons.

3302 Dirksen Building

Veterans' Affairs

Business meeting, to discuss committee organization.

412 Russell Building

10:00 a.m.

Agriculture, Nutrition, and Forestry

Business meeting, to discuss budgetary and other committee business.

Until: Noon

322 Russell Building

Appropriations

Defense Subcommittee

To resume hearings on proposed budget estimates for fiscal year 1978 for the defense establishment, to hear testimony on manpower and reserve affairs.

1223 Dirksen Building

Appropriations

Subcommittee on Foreign Operations

To hold hearings on proposed budget estimates for fiscal year 1978 for the foreign aid programs, to hear officials of the Department of the Treasury.

1318 Dirksen Building

Armed Services

Research and Development Subcommittee

To hold closed hearings on proposed military program authorizations for fiscal year 1978 for Army programs.

224 Russell Building

Banking, Housing, and Urban Affairs

To hold hearings on proposed authorizations for major housing and community development programs.

5302 Dirksen Building

Budget

To hold hearings in preparation for reporting the first concurrent resolution on the fiscal year 1978 budget, to hear Dr. Rivlin of the Congressional Budget Office.

357 Russell Building

Energy and Natural Resources

Subcommittee on Minerals, Materials, and Fuels

To continue hearings on S. 7, to establish in the Department of the Interior an Office of Surface Mining Reclamation and Enforcement to administer programs to control surface coal mining operations.

3110 Dirksen Building

Finance

To consider its recommendations to be made to the Budget Committee on the fiscal year 1978 budget in accordance with the Congressional Budget Act.

2221 Dirksen Building

Foreign Relations

Subcommittee on Foreign Economic Policy

Closed business meeting to discuss subcommittee organization and proposed work schedule.

S-116, Capitol

Human Resources

To hold hearings on the nominations of Peter G. Bourne, of the District of Columbia, to be Director, and Lee I. Dogoloff, of Maryland, to be Deputy Director of the Office of Drug Abuse Policy.

4232 Dirksen Building

Rules and Administration

To discuss committee rules and organization, to be followed by hearings on S. Res's. 5 through 12, proposing changes in Senate rules.

301 Russell Building

10:30 a.m.

Judiciary

To hold hearings on the nominations of Wade H. McCree, Jr., of Michigan, to be Solicitor General; Barbara A. Babcock, of California, to be an Assistant Attorney General (Civil Division); Benjamin R. Civiletti, of Maryland, to be an Assistant Attorney General (Criminal Division); Drew S. Days, II, of New York, to be an Assistant Attorney General (Civil Rights Division); Daniel J. Meador, of Virginia, to be an Assistant Attorney General (Office for Improvements in the Administration of Justice); and Patricia M. Wald, of Maryland, to be an Assistant Attorney General (Office of Legislative Affairs).

2228 Dirksen Building

1:30 p.m.

Appropriations

Subcommittee on Agriculture

To resume hearings on proposed budget estimates for fiscal year 1978 for the Department of Agriculture.

1224 Dirksen Building

2:00 p.m.

Environment and Public Works

To hold hearings on the nominations of Douglas M. Costle, of Virginia, to be Administrator of the Environmental Protection Agency; and Barbara Blum, of Georgia, to be Deputy Administrator of the Environmental Protection Agency; to be followed by consideration of these nominations.

4200 Dirksen Building

3:00 p.m.

Appropriations

HUD-Independent Agencies Subcommittee

To hold hearings on proposed supplemental appropriations for fiscal year 1977 for the Department of Housing and Urban Development.

1318 Dirksen Building

MARCH 3

9:00 a.m.

Agriculture, Nutrition, and Forestry

To resume hearings and proposed legislation to amend and extend the Agriculture and Consumer Protection Act.

Until: Noon

322 Russell Building

Human Resources

To hold hearings on the nomination of Mary Elizabeth King, of the District of Columbia, to be Deputy Director of the ACTION Agency.

4232 Dirksen Building

9:30 a.m.

Appropriations

Interior Subcommittee

To hold hearings on proposed budget for fiscal year 1978 for Indian Education and the Indian Health Service.

1114 Dirksen Building

Environment and Public Works

To hold hearings to review Presidential budget requests for fiscal year 1978 for the Fish and Wildlife Service.

4200 Dirksen Building

Small Business

To hold hearings on bills to provide dis-

aster assistance to small businesses (S. 570 and 704).  
3302 Dirksen Building

10:00 a.m.  
Appropriations  
Defense Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the Defense establishment.  
1223 Dirksen Building

Appropriations  
Transportation Subcommittee  
To hold hearings on the certain 1977 supplemental appropriations and fiscal year 1978 budget estimates for the National Transportation Safety Board, Federal Highway Administration, Federal Aviation Administration, and Pan Am Airways.  
1224 Dirksen Building

Appropriations  
Treasury, Postal Service, and General Government Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the Secret Service, and Bureaus of Mint and Engraving and Printing, Department of the Treasury.  
S-126, Capitol

Banking, Housing, and Urban Affairs  
To hold hearings on proposed authorizations for major housing and community development programs.  
5302 Dirksen Building

Commerce, Science and Transportation Subcommittee on Science and Space  
To resume hearings on S. 365, authorizing funds for fiscal year 1976 for the National Aeronautics and Space Administration.  
235 Russell Building

Energy and Natural Resources Subcommittee on Minerals, Materials and Fuels  
To continue hearing on S. 7, to establish in the Department of the Interior an Office of Surface Mining Reclamation and Enforcement to administer programs to control surface coal mining operations.  
3110 Dirksen Building

Finance  
To consider its recommendations to be made to the Budget Committee on the fiscal year 1978 budget in accordance with the Congressional Budget Act.  
2221 Dirksen Building

Human Resources Subcommittee on Health and Scientific Research  
To resume hearings on proposed legislation authorizing funds for the National Science Foundation for fiscal year 1978.  
Until: 1 p.m. 4232 Dirksen Building

Rules and Administration Subcommittee on Privileges and Elections  
To hold hearings on the proposed fiscal year 1978 authorization for the Federal Election Commission.  
301 Russell Building

Select Intelligence Subcommittee on Budget Authorization  
To resume closed hearings on proposed fiscal year 1978 authorizations for Government intelligence activities.  
S-407, Capitol

11:00 a.m.  
Budget  
To hold hearings in preparation for reporting the first concurrent resolution on the fiscal year 1978 budget.  
357 Russell Building

Foreign Relations Subcommittee on Foreign Economic Policy  
To consider its recommendations to be made to the full committee for inclusion in its recommendations to the Budget Committee on fiscal year 1978 items in accordance with the Congressional Budget Act.  
S-116, Capitol

1:30 p.m.  
Appropriations  
Agriculture Subcommittee  
To continue hearings on proposed budget estimates for fiscal year 1978 for the Department of Agriculture.  
1318 Dirksen Building

2:00 p.m.  
Appropriations  
Legislative Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the Architect of the Capitol, Botanic Gardens, and Government Printing Office.  
S-128, Capitol

Appropriations  
Transportation Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for Metro, National Highway Traffic Safety Administration, and the Air Transport Association; and to hold hearings on supplemental appropriations for fiscal year 1977 for the National Highway Traffic Safety Administration.  
1224 Dirksen Building

Appropriations  
Treasury, Postal Service, and General Government Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the Internal Revenue Service.  
S-126, Capitol

MARCH 4

10:00 a.m.  
Budget  
To hold hearings in preparation for reporting the first concurrent resolution on the fiscal year 1978 budget, to hear Defense Secretary Brown.  
357 Russell Building

11:00 a.m.  
Foreign Relations Subcommittee on Foreign Assistance  
To receive testimony on human rights issues and their relationship to foreign assistance programs.  
4221 Dirksen Building

2:00 p.m.  
Appropriations  
Transportation Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the Coast Guard.  
1224 Dirksen Building

MARCH 7

10:00 a.m.  
Appropriations  
Defense Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the Defense Establishment, to receive testimony from Army officials on research, development, training, and evaluation.  
1223 Dirksen Building

Appropriations  
HUD-Independent Agencies Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the Environmental Protection Agency.  
1318 Dirksen Building

Appropriations  
Military Construction Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for military construction programs.  
S-146, Capitol

2:00 p.m.  
Appropriations  
District of Columbia Subcommittee  
To hold hearings on supplemental appropriations for fiscal year 1977 for the District of Columbia.  
1114 Dirksen Building

Appropriations  
Legislative Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the Office of Technology Assessment.  
S-128, Capitol

Appropriations  
Public Works Subcommittee  
To resume hearings on proposed budget estimates for fiscal year 1978 for public works projects.  
Room to be announced

Appropriations  
Transportation Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the St. Lawrence Seaway, Materials Transportation Bureau, Civil Aeronautics Board, and Interstate Commerce Commission.  
1224 Dirksen Building

MARCH 8

9:30 a.m.  
Appropriations  
Interior Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the Bureau of Mines.  
1114 Dirksen Building

10:00 a.m.  
Appropriations  
Defense Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the Defense establishment, to receive testimony from Army officials on procurement programs.  
1223 Dirksen Building

Appropriations  
Foreign Operations Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for foreign aid programs, to receive testimony in behalf of funds for migration and refugee assistance, and the U.S. Emergency Refugee and Migration Assistance fund, Department of State.  
S-126, Capitol

Appropriations  
HUD—Independent Agencies Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the Environmental Protection Agency and the Council on Environmental Quality.  
1318 Dirksen Building

Appropriations  
Labor-HEW Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the Department of HEW, to hear Secretary Califano.  
S-128, Capitol

Appropriations  
Treasury, Postal Service, and General Government Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the Bureaus of Government Financial Operations, Public Debt, and Alcohol, Tobacco and Firearms.  
S-146 Capitol

Budget  
To hold hearings in preparation for reporting the first concurrent resolution on the fiscal year 1978 budget, to hear representatives of the Department of Defense.  
357 Russell Building

2:00 p.m.  
Appropriations  
Foreign Operations Subcommittee  
To continue hearings on proposed budget estimates for fiscal year 1978 for foreign aid programs, to hear testimony in behalf of funds for International Narcotics Control, Department of State, and International Disaster Assistance, and the American Schools and Hospitals Abroad, AID.  
S-126, Capitol

Appropriations  
Labor-HEW Subcommittee  
To continue hearings on proposed budget estimates for fiscal year 1978 for the Department of Health, Education, and

- Welfare, to receive testimony on health programs.  
S-128, Capitol
- Appropriations  
Legislative Subcommittee  
To hold hearings on proposed budget estimates for fiscal year 1978 for the Congressional Budget Office.  
S-146, Capitol
- 2:30 p.m.  
Appropriations  
Public Works Subcommittee  
To continue hearings on proposed budget estimates for fiscal year 1978 for public works projects.  
Room to be announced  
MARCH 9
- 9:00 a.m.  
Agriculture, Nutrition, and Forestry  
To continue hearings on proposed legislation to amend and extend the Agriculture and Consumer Protection Act.  
Until: Noon 322 Russell Building  
Budget  
To hold hearings in preparation for reporting the first concurrent resolution on the fiscal year 1978 budget, to hear representatives of the Department of Agriculture.  
322 Russell Building
- 9:30 a.m.  
Appropriations  
Interior Subcommittee  
To continue hearings on proposed budget estimates for fiscal year 1978 for the Department of the Interior, to hear officials of the Mining Enforcement and Safety Administration and for the Institute for Museum Services.  
1114 Dirksen Building
- Small Business  
To hold hearings to consider the impact of product liability insurance on small businesses, and on S. 527, authorizing the Small Business Administration to furnish reinsurance for property liability insurers for small business concerns which would not otherwise be able to obtain product liability insurance on reasonable terms.  
6202 Dirksen Building
- 10:00 a.m.  
Appropriations  
Defense Subcommittee  
To continue hearings on proposed estimates for fiscal year 1978 for the defense establishment.  
1223 Dirksen Building
- Appropriations  
Treasury, Postal Service and General Government Subcommittee  
To resume hearings on proposed budget estimates for fiscal year 1978 for the U.S. Tax Court, and units in the Executive Office of the President.  
1318 Dirksen Building
- Appropriations  
Military Construction Subcommittee  
To resume hearings on proposed budget estimates for fiscal year 1978 for military construction programs.  
S-146, Capitol
- Appropriations  
Labor-HEW Subcommittee  
To continue hearings on proposed budget estimates for fiscal year 1978 for the Department of HEW, to hear officials of the Health Services Administration.  
S-128, Capitol
- Banking, Housing, and Urban Affairs  
To mark up (1) proposed legislation authorizing funds for fiscal year 1978 housing program; (2) S. 417, the proposed National Neighborhood Policy Act; and (3) to review those items in the Presidential budget for fiscal year 1978 which fall within the committee's legislative jurisdiction.  
5302 Dirksen Building
- Commerce, Science and Transportation Subcommittee on Science and Space  
To hold closed hearings on S. 365, authorizing funds for fiscal year 1978 for the National Aeronautics and Space Administration.  
235 Russell Building
- Environment and Public Works  
To hold hearings to review Presidential budget requests for fiscal year 1978 for the Federal Highway Administration.  
4200 Dirksen Building
- Select Intelligence Subcommittee Budget Authorization  
To resume closed hearings on proposed fiscal year 1978 authorizations for Government intelligence activities.  
S-407, Capitol
- 2:00 p.m.  
Appropriations  
Labor-HEW Subcommittee  
To continue hearings on proposed budget estimates for fiscal year 1978 for the Department of HEW, to hear officials of the Center for Disease Control.  
S-128, Capitol
- Appropriations  
Public Works Subcommittee  
To continue hearings on proposed budget estimates for fiscal year 1978 for public works projects.  
Room to be announced  
MARCH 10
- 9:00 a.m.  
Agriculture, Nutrition, and Forestry  
To continue hearings on proposed legislation to amend and extend the Agriculture and Consumer Protection Act.  
Until: Noon 322 Russell Building
- 9:30 a.m.  
Appropriations  
Interior Subcommittee  
To resume hearings on proposed budget estimates for fiscal year 1978 for the Department of the Interior, to hear officials of the Geological Survey.  
1114 Dirksen Building
- 10:00 a.m.  
Appropriations  
Foreign Operations Subcommittee  
To resume hearings on proposed budget estimates for fiscal year 1978 for foreign aid programs to hear testimony on funds for the Peace Corps, the Inter-American Foundation, and the International Organizations and Programs, and U.N. Environment Fund.  
1318 Dirksen Building
- Appropriations  
Treasury, Postal Service, and General Government Subcommittees  
To continue hearings on proposed budget estimates for fiscal year 1978 for certain units in the Executive Office of the President, and for the Office of Federal Procurement Policy.  
1224 Dirksen Building
- Appropriations  
Defense Subcommittee  
To continue hearings on proposed budget estimates for fiscal year 1978 for the defense establishment, to hear Navy witnesses on procurement programs.  
1223 Dirksen Building
- Appropriations  
Military Construction Subcommittee  
To resume hearings on proposed budget estimates for fiscal year 1978 for military construction programs.  
S-146, Capitol
- Banking, Housing and Urban Affairs  
To hold oversight hearings on the state of the U.S. banking system.  
5302 Dirksen Building
- Budget  
To hold hearings in preparation for reporting the first concurrent resolution on the fiscal year 1978 budget, to receive testimony on welfare programs.  
357 Russell Building
- Select Intelligence Subcommittee on Budget Authorization  
To resume closed hearings on proposed fiscal year 1978 authorizations for Government intelligence activities.  
S-407, Capitol
- 2:00 p.m.  
Appropriations  
Public Works Subcommittee  
To continue hearings on proposed budget estimates for fiscal year 1978 for public works projects.  
Room to be announced
- Appropriations  
Treasury, Postal Service and General Government Subcommittee  
To continue hearings on proposed budget estimates for fiscal year 1978 for the U.S. Postal Service, the Office of Drug Abuse Policy, and Commission on Federal Paperwork.  
1224 Dirksen Building  
MARCH 11
- 9:00 a.m.  
Agriculture, Nutrition, and Forestry  
To continue hearings on proposed legislation to amend and extend the Agriculture and Consumer Protection Act.  
Until: Noon 322 Russell Building
- 10:00 a.m.  
Appropriations  
Defense Subcommittee  
To continue hearings on proposed budget estimates for fiscal year 1978 for the Defense Establishment, to hear Air Force witnesses on procurement programs.  
1223 Dirksen Building
- Banking, Housing, and Urban Affairs  
To continue oversight hearings on the state of the U.S. banking system.  
5302 Dirksen Building
- Budget  
To hold hearings in preparation for reporting the first concurrent resolution on the fiscal year 1978 budget, to receive testimony on health programs.  
357 Russell Building  
MARCH 14
- 9:00 a.m.  
Agriculture, Nutrition, and Forestry  
To continue hearings on proposed legislation to amend and extend the Agriculture and Consumer Protection Act.  
Until: Noon 322 Russell Building
- 10:00 a.m.  
Appropriations  
HUD-Independent Agencies  
To resume hearings on proposed budget estimates for fiscal year 1978 for the Veterans' Administration.  
1318 Dirksen Building
- 2:00 p.m.  
Appropriations  
Public Works Subcommittee  
To continue hearings on proposed budget estimates for fiscal year 1978 for public works project.  
Room to be announced  
MARCH 15
- 9:00 a.m.  
Agriculture, Nutrition, and Forestry  
To continue hearings on proposed legislation to amend and extend the Agriculture and Consumer Protection Act.  
Until: Noon 322 Russell Building
- 9:30 a.m.  
Appropriations  
Interior Subcommittee  
To resume hearings on proposed budget estimates for fiscal year 1978 and on proposed supplemental appropriations for fiscal year 1977 for the Trust Territory of the Pacific Islands.  
1114 Dirksen Building
- 10:00 a.m.  
Appropriations  
Treasury, Postal Service and General Government Subcommittee  
To continue hearings on proposed budget estimates for fiscal year 1978 for

the Council of Economic Advisers, the Council on Wage and Price Stability, the National Security Council, and the National Center for Productivity and Quality of Working Life.  
1224 Dirksen Building

**Appropriations**

**HUD-Independent Agencies Subcommittee**  
To continue hearings on proposed budget estimates for fiscal year 1978 for the Veterans' Administration, American Battle Monuments Commission, and the U.S. Army Cemeterial Expenses.  
1318 Dirksen Building

**Appropriations**

**Labor-HEW Subcommittee**  
To resume hearings on proposed budget estimates for fiscal year 1978 for the National Institutes of Health.  
S-128, Capitol

**Select Intelligence**

**Subcommittee on Budget Authorization**  
To resume closed hearings on proposed fiscal year 1978 authorizations for Government intelligence activities.  
E-407, Capitol

10:30 a.m.

**Commerce, Science, and Transportation**  
To hold hearings on bills calling for more stringent oil tanker safety standards (S. 682, 568, 182, 715).  
5110 Dirksen Building

2:00 p.m.

**Appropriations**  
**Treasury, Postal Service and General Government Subcommittee**  
To continue hearings on proposed budget estimates for fiscal year 1978 for the Federal Election Commission, the Civil Service Commission, the Defense Civil Preparedness Agency and the Federal Labor Relations Council.  
1224 Dirksen Building

**Appropriations**

**Public Works Subcommittee**  
To continue hearings on proposed budget estimates for fiscal year 1978 for public works projects.  
Room to be announced

**Appropriations**

**Labor-HEW Subcommittee**  
To resume hearings on proposed budget estimates for fiscal year 1978 for the National Institutes of Health.  
S-128, Capitol

MARCH 16

10:00 a.m.

**Banking, Housing, and Urban Affairs**  
Subcommittee on Financial Institutions  
To hold hearings on corporate bribery and investment disclosure legislation.  
5302 Dirksen Building

**Budget**

To hold hearings in preparation for reporting the first concurrent resolution on the fiscal year 1978 budget, to receive testimony on the overall economic outlook.  
357 Russell Building

**Select Intelligence**

**Subcommittee on Budget Authorization**  
To resume closed hearings on proposed fiscal year 1978 authorizations for Government intelligence activities.  
S-407, Capitol

10:30 a.m.

**Commerce, Science, and Transportation**  
To hold hearings on bills calling for more stringent oil tanker safety standards (S. 682, 586, 182, 715).  
5110 Dirksen Building

MARCH 17

10:00 a.m.

**Appropriations**  
**Treasury, Postal Service and General Government Subcommittee**  
To continue hearings on proposed budget estimates for fiscal year 1978 for the Committee for Purchase of Products and Services of the Blind and Other Severely Handicapped, General Services Administration.  
1318 Dirksen Building

**Banking, Housing, and Urban Affairs**  
To mark up the proposed legislation to extend the Export Administration Act and related matters.  
5302 Dirksen Building

10:00 a.m.

**Budget**  
To hold hearings in preparation for reporting the first concurrent resolution on the fiscal year 1978 budget.  
357 Russell Building

**Select Intelligence**

**Subcommittee on Budget Authorization**  
To hold closed hearings on proposed fiscal year 1978 authorizations for Government intelligence activities.  
S-407, Capitol

10:30 a.m.

**Commerce, Science, and Transportation**  
To hold hearings on bills calling for more stringent oil tanker safety standards (S. 682, 586, 182, 715).  
5110 Dirksen Building

2:00 p.m.

**Appropriations**  
**Treasury, Postal Service and General Government Subcommittee**  
To continue hearings on proposed budget estimates for fiscal year 1978 for the Committee for Purchase of Products and Services of the Blind and Other Severely Handicapped, General Services Administration.  
1318 Dirksen Building

MARCH 21

9:30 a.m.

**Commerce, Science, and Transportation**  
To hold hearings to inquire into domestic communications common carrier (i.e., telephones, computers, etc.) policies.  
235 Russell Building

**Commerce, Science, and Transportation**  
Subcommittee on Aviation  
To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 929 and S. 689.  
5110 Dirksen Building

**Small Business**

To hold hearings to consider the impact of product safety regulations on small businesses.  
318 Russell Building

10:00 a.m.

**Banking, Housing, and Urban Affairs**  
Subcommittee on Financial Institutions  
To hold oversight hearings on the activities of the Electronic Fund Transfer System Commission.  
5302 Dirksen Building

MARCH 22

9:30 a.m.

**Commerce, Science, and Transportation**  
To hold hearings to inquire into domestic communications common carrier (i.e., telephones, computers, etc.) policies.  
235 Russell Building

**Commerce, Science, and Transportation**  
Subcommittee on Aviation  
To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 292 and S. 689.  
5110 Dirksen Building

10:00 a.m.

**Appropriations**  
**Defense Subcommittee**  
To continue hearings on proposed budget estimates for fiscal year 1978 for the defense establishment, to hear officials of the Defense Communications Agency, Mapping Agency, Nuclear Agency, and Supply Agency.  
1223 Dirksen Building

**Appropriations**

**Treasury, Postal Service, and General Government Subcommittee**  
To continue hearings on proposed budget estimates for fiscal year 1978 for the

Department of the Treasury, the Postal Service, and General Government.  
1224 Dirksen Building

**Banking, Housing, and Urban Affairs**  
Subcommittee on Financial Institutions  
To hold oversight hearings on the activities of the Electronic Fund Transfer System Commission.  
5302 Dirksen Building

**Select Intelligence**

**Subcommittee on Budget Authorization**  
To resume closed hearings on proposed fiscal year 1978 authorizations for Government intelligence activities.  
S-407, Capitol

2:00 p.m.

**Appropriations**  
**Treasury, Postal Service, and General Government Subcommittee**  
To continue hearings on proposed budget estimates for fiscal year 1978 for the Department of the Treasury, the Postal Service, and General Government.  
1224 Dirksen Building

MARCH 23

9:30 a.m.

**Commerce, Science, and Transportation**  
To hold hearings to inquire into domestic communications common carrier (i.e., telephones, computer, etc.) policies.  
235 Russell Building

**Commerce, Science, and Transportation**  
Subcommittee on Aviation  
To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 292, and S. 689.  
5110 Dirksen Building

10:00 a.m.

**Banking, Housing, and Urban Affairs**  
To hold hearings on S. 406, the proposed Community Reinvestment Act.  
5302 Dirksen Building

**Select Intelligence**

**Subcommittee on Budget Authorization**  
To resume closed hearings on proposed fiscal year 1978 authorizations for Government intelligence activities.  
S-407, Capitol

MARCH 24

9:00 a.m.

**Select Nutrition and Human Needs**  
To resume hearings to examine the relationship between diet and health, to receive testimony on beef consumption.  
Until: 1 p.m. 457 Russell Building

9:30 a.m.

**Commerce, Science, and Transportation**  
Subcommittee on Aviation  
To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 292, and S. 689.  
5110 Dirksen Building

10:00 a.m.

**Banking, Housing, and Urban Affairs**  
To hold hearings on S. 406, the proposed Community Reinvestment Act.  
5302 Dirksen Building

**Energy and Natural Resources**

To hold oversight hearings on the proposal for an international petroleum transshipment port and storage center located in the Palau District, Western Caroline Islands, Trust Territory of the Pacific Islands.  
3110 Dirksen Building

MARCH 25

9:30 a.m.

**Commerce, Science, and Transportation**  
Subcommittee on Aviation  
To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 292, and S. 689.  
5110 Dirksen Building

- 10:00 a.m.  
Appropriations  
Subcommittee on Defense  
To continue hearings on proposed budget estimates for fiscal year 1978 for the defense establishment, to hear Congressional witnesses.  
1223 Dirksen Building  
Banking, Housing, and Urban Affairs  
To hold hearings on S. 406, the proposed Community Reinvestment Act.  
5302 Dirksen Building  
MARCH 28
- 9:30 a.m.  
Commerce, Science, and Transportation  
Subcommittee on Aviation  
To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 292, and S. 689.  
5110 Dirksen Building  
MARCH 29
- 9:30 a.m.  
Commerce, Science, and Transportation  
Subcommittee on Aviation  
To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 292, and S. 689.  
5110 Dirksen Building  
MARCH 29
- 10:00 a.m.  
Select Intelligence  
Subcommittee on Budget Authorization  
To resume closed hearings on proposed fiscal year 1978 authorization for Government intelligence activities.  
S-407, Capitol  
MARCH 30
- 9:30 a.m.  
Commerce, Science, and Transportation  
Subcommittee on Aviation  
To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 292, and S. 689.  
5110 Dirksen Building
- 10:00 a.m.  
Appropriations  
Subcommittee on Defense  
To continue hearings on proposed budget estimates for fiscal year 1978 for the defense establishment, to hear Congressional witnesses.  
1223 Dirksen Building  
Banking, Housing, and Urban Affairs  
To mark up proposed legislation on corporate bribery and investment disclosure.  
5302 Dirksen Building  
MARCH 31
- 9:00 a.m.  
Select Nutrition and Human Needs  
To continue hearings to examine the relationship between diet and health, to receive testimony on the need for fiber in diet.  
Until: 1 p.m. 3302 Dirksen Building
- 9:30 a.m.  
Commerce, Science, and Transportation  
Subcommittee on Aviation  
To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 292, and S. 689.  
5110 Dirksen Building
- 9:30 a.m.  
Commerce, Science, and Transportation  
Subcommittee on Aviation  
To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 292, and S. 689.  
5110 Dirksen Building
- 10:00 a.m.  
Appropriations  
Subcommittee on Defense  
To continue hearings on proposed budget estimates for fiscal year 1978 for the defense establishment, to hear public witnesses.  
1223 Dirksen Building
- Foreign Relations  
Subcommittee on Oceans and International Environment  
To hold hearings on S. Res. 49, expressing the sense of the Senate that the U.S. Government should seek the agreement of other governments to a proposed treaty requiring the propagation of an international environmental impact statement for any major project expected to have significant adverse effect on the physical environment.  
4221 Dirksen Building
- 9:00 a.m.  
Select Nutrition and Human Needs  
To hold hearings to examine the effects of nutrition on mental and emotional health.  
Until: 1 p.m. 3302 Dirksen Building  
APRIL 1
- 9:30 a.m.  
Commerce, Science, and Transportation  
Subcommittees on Aviation  
To hold hearings on bills proposing regulatory reform in the air transportation industry, including S. 292, and S. 689.  
5110 Dirksen Building
- 10:00 a.m.  
Appropriations  
Subcommittee on Military Construction  
To resume hearings on proposed budget estimates for fiscal year 1978 for NATO.  
S-146, Capitol  
APRIL 19
- 10:00 a.m.  
Banking, Housing, and Urban Affairs  
To hold hearings on proposed legislation on housing and community development, with a view to reporting its final recommendations on housing programs to the Budget Committee by May 15.  
5302 Dirksen Building  
APRIL 20
- 10:00 a.m.  
Banking, Housing, and Urban Affairs  
To hold oversight hearings on U.S. monetary policy.  
5302 Dirksen Building
- on housing and community development, with a view to reporting its final recommendations on housing programs to the Budget Committee by May 15.  
5302 Dirksen Building  
APRIL 21
- 10:00 a.m.  
Banking, Housing, and Urban Affairs  
To hold hearings on proposed legislation on housing and community development, with a view to reporting its final recommendations on housing programs to the Budget Committee by May 15.  
5302 Dirksen Building  
APRIL 22
- 10:00 a.m.  
Banking, Housing, and Urban Affairs  
To hold hearings on proposed legislation on housing and community development, with a view to reporting its final recommendations on housing programs to the Budget Committee by May 15.  
5302 Dirksen Building  
MAY 3
- 10:00 a.m.  
Banking, Housing, and Urban Affairs  
To hold oversight hearings on U.S. monetary policy.  
5302 Dirksen Building  
MAY 4
- 10:00 a.m.  
Banking, Housing, and Urban Affairs  
To consider all proposed legislation under the committee's jurisdiction with a view to reporting its final recommendations to the Budget Committee by May 15.  
5302 Dirksen Building  
MAY 5
- 10:00 a.m.  
Banking, Housing, and Urban Affairs  
To consider all proposed legislation under the committee's jurisdiction with a view to reporting its final recommendations to the Budget Committee by May 15.  
5302 Dirksen Building  
MAY 6
- 10:00 a.m.  
Banking, Housing, and Urban Affairs  
To consider all proposed legislation under the committee's jurisdiction with a view to reporting its final recommendations to the Budget Committee by May 15.  
5302 Dirksen Building  
MAY 10
- 10:00 a.m.  
Banking, Housing, and Urban Affairs  
To hold oversight hearings on U.S. monetary policy.  
5302 Dirksen Building

## HOUSE OF REPRESENTATIVES—Monday, February 28, 1977

The House met at 12 o'clock noon.

The Chaplain, Reverend Edward G. Latch, D.D., offered the following prayer:

*Who shall ascend the hill of the Lord?  
Who shall stand in His holy place? He  
who has clean hands and a pure heart,  
who does not lift up his soul to what is  
false. He will receive blessing from the  
Lord.—Psalms 24: 3-5.*

Eternal God, whose goodness is inexhaustible and whose truth endureth forever, come Thou into our hearts and search our minds to see if there be any evil way in us. Then with Thy forgiving and renewing power lead us in the ways

of faith and hope and love. Soothe our troubled spirits, heal our broken hearts, forgive our waywardness, and so fill us with Thy grace that we may not fail man nor Thee again.

We pray for the leaders who govern our country. Grant unto them courageous hearts, wise minds, and faithful spirits that they may do what is right and good for all. We pray for our people. May they ever be loyal to Thee, the Most High, and live with love in their hearts that we may dwell together in peace and with good will for each other.

In the spirit of Him who is the Lord of Life 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.

### MESSAGE FROM THE SENATE

A message from the Senate by Mr. Sparrow, one of its clerks, announced that the Senate had passed without amendment a bill and joint resolution of the House of the following titles: