MILITARY CONSTRUCTION APPROPRIATIONS FOR 1977

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS HOUSE OF REPRESENTATIVES

NINETY-FOURTH CONGRESS

SECOND SESSION

SUBCOMMITTEE ON MILITARY CONSTRUCTION APPROPRIATIONS

ROBERT L. F. SIKES, Florida, *Chairman*

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ROBERT C. NICHOLAS III, *Staff Assistant*

REPROGRAMING REQUESTS AND OTHER SUBJECTS

Printed for the use of the Committee on Appropriations

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U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON : 1976

76-434 O

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THURSDAY, JULY 22, 1976.

MILITARY CONSTRUCTION, ARMY EMERGENCY CONSTRUCTION

ARMAMENT DEVELOPMENT CENTER

WITNESSES

MEMBERS OF CONGRESS AND ASSOCIATED WITNESSES

HON. JOSHUA EILBERG, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA
HON. HELEN MEYNER, A REPRSENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY
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CLAUD COMER, REPRESENTING QUAD-CITY TASK FORCE
EDWARD P. CARROLL, SPECIAL ASSISTANT TO JOSHUA EILBERG, REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA

ARMY WITNESSES

MAJ. GEN. WILLIAM R. WRAY, ASSISTANT CHIEF OF ENGINEERS
COL. VICTOR S. UNDERHILL, CHIEF OF FACILITIES PLANNING TEAM, U.S. ARMY MATERIEL AND READINESS COMMAND
MANFRED GALE, ADVISER FOR RESEARCH, DEVELOPMENT, AND ACQUISITION ANALYSIS, OFFICE OF THE DEPUTY CHIEF OF STAFF FOR RESEARCH, DEVELOPMENT, AND ACQUISITION
COL. LEE T. DOYLE, DIRECTOR OF ARMAMENT RESEARCH AND DEVELOPMENT COMMAND IMPLEMENTATION TASK FORCE, U.S. ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND
DR. RONALD A. DOWNING, CHIEF, DEPENDENTS EDUCATION DIVISION, EDUCATION DIRECTORATE, OFFICE OF THE ARMY ADJUTANT GENERAL

OPENING STATEMENT BY THE CHAIRMAN

Mr. SIKES. The committee will be in order.

We will hear this morning, the Army's proposal to reprogram $7,363,000 to modify and construct facilities at Picatinny Arsenal,

N.J., so as to accommodate functions of the new armament development center. As we understand it, the particular functions to be housed in these facilities would be those which the Army has decided to relocate from Frankford Arsenal, Pa.

This, of course, is a matter which is controversial. A number of Members of Congress are very keenly interested in this. They have been invited to be with us and we will hear from them if they wish to be heard.

This committee has followed the practice of looking carefully into proposals to relocate Defense activities, especially when we have a voice in the actual relocation. Of course, we would be directly involved only in the event funding for construction is required. Otherwise we have no voice in the decisions of the Department of Defense on realinements.

We are always concerned as to whether a proposed relocation is sound from the standpoint of disruption of ongoing activities and from the standpoint of abandoning usable facilities to move into new facilities which may require new construction or renovation.

We want all the facts in this case. We are going into it with an open mind. We have had some testimony from the Army in this regard in previous hearings. The proposal now before us is a result of considerable study by the Army and comments by congressional delegations affected and, to some extent, personnel of existing Army laboratories.

We want to go into the whole concept in some detail now to see why the alternative before us was chosen and whether, in the opinion of this committee, it is sufficiently prudent and cost effective to justify approval of the reprograming requested.

From our standpoint, it is perhaps unfortunate that a major change eventually involving tens of millions of dollars in construction and affecting so many people is being requested as a reprograming action. It would be better if this type of decision could be made in the process of considering the regular annual Military Construction Act.

We want to explore why this has to be done now and what the long-term implications are.

We will hear the Army's statement; we will question the Army; and we will hear from Members of Congress representing the various areas affected by this action.

I shall read into the record the reprograming request dated June 11, 1976, from Hon. Terence E. McClary, Assistant Secretary of Defense. The letter addressed to me is as follows:

(Mr. Sikes read the following letter:)

ASSISTANT SECRETARY OF DEFENSE,
Washington, D.C., June 11, 1976.

Hon. ROBERT L. F. SIKES,
Chairman, Subcommittee on Military Construction,
Committee on Appropriations,
House of Representatives.

DEAR MR. CHAIRMAN: The Department of the Army requests approval to reprogram $7,363,000 within the military construction, Army appropriaton under authority of Section 102, Public Law 94–107. This action is urgently required to provide minimum facilities necessary to establish an armament development center with headquarters at Picatinny Arsenal, New Jersey. The urgency of this project is further intensified by the scheduled closure of Frankford Arsenal, Pa., on September 1, 1977, and the resulting transfer of armament development missions from that installation to Picatinny Arsenal.

The work includes the conversion, alteration, and expansion of 12 existing facilities, construction of 1 new building and necessary upgrading and expansion of associated utilities. The balance of planned construction for this move, to be programed in future years, is estimated to cost $33 million. Annual savings, due to this consolidation are estimated at $37 million.

The enclosed justification sheets describe this project in more detail and list the prior year funds to be utilized for this construction. Army personnel are available to provide any additional information the committee may desire.

Your approval of this reprograming action is requested.

Sincerely,

TERENCE E. MCCLARY,
Assistant Secretary of Defense.

Enclosure.

(The attachments follow:)

MILITARY CONSTRUCTION, ARMY REPROGRAMING REQUEST

Installation: Picatinny Arsenal, Dover, N.J.
Project: B817–817.300—Armament Development Center Facilities.
*Authorization :*Section 102, Public Law 94–107.
Estimated Cost: $7,363,000.

DESCRIPTION

This project consists of work to furnish the minimum facilities necessary to house the armament mission presently located at Frankford Arsenal that is to be transferred to Picatinny Arsenal. The work includes the conversion, alteration, and expansion of 12 existing buildings and construction of 1 new building at Picatinny Arsenal to provide accommodations for large and small caliber ammunition metal parts fabrication, a fire control laboratory, fuze metal parts fabrication, physical and applied sciences laboratories, technical data activities, an optics prototype facility, and test measurement and diagnostic equipment missions. The work also includes necessary upgrading and expansion of associated utilities, heating and air-conditioning systems.

JUSTIFICATION

This project is urgently required to carry out the decision of the Secretary of the Army to establish an Armament Development Center (ADC) with headquarters at Picatinny Arsenal. The urgency of this project is additionally intensified by the scheduled closure of Frankford Arsenal on September 1, 1977, and the resulting transfer of armament development missions from that installation to Picatinny.

The ADC will have responsiblity for research, development, and prototype through first procurement of newly developed armament material. It will incorporate armament development and portions of procurement activities now performed at Frankford, Rock Island, Picatinny, Watervliet, and Edgewood Arsenals with the activities of the Ballistics Research Laboratory at Aberdeen Proving Ground. The establishment of ADC will result in streamlining armament development activities for all weapons systems and ammunition critical to national defense with an annual savings of $37 million over the costs of the present methods of operation.

The work comprising this project is the first increment of a construction program to provide complete facilities for the ADC and will furnish the facilities immediately required to accept the missions now conducted at Frankford Arsenal that are scheduled for transfer to Picatinny. The best available estimate of costs for the balance of construction to be accomplished in future year programs is $33 million.

There is an urgent requirement for $7,363,000 to construct the facilities proposed for this project. Deferral of this construction for consideration in the next annual military construction program will not be in the interests of national security because it will delay both the establishment of ADC at Picatinny Arsenal and the closing of Frankford Arsenal beyond their scheduled dates with subsequent adverse effects on armament development missions.

SOURCE OF FUNDS

Funds required to finance the proposed construction will be provided by reprograming SAFEGUARD construction funds available from the following fiscal year:

Fiscal year program, 1971	*Thousands*
Program amount available	$7,900
Proposed reprograming	7,363
Unprogramed balance	537

1. DATE	2. FISCAL YEAR	MILITARY CONSTRUCTION PROJECT DATA	3. DEPARTMENT	4. INSTALLATION
REVISED 23 Feb 1976	1976		ARMY	Picatinny Arsenal

5. PROPOSED AUTHORIZATION	6. PRIOR AUTHORIZATION	7. CATEGORY CODE NUMBER	8. PROGRAM EL.EMENT NUMBER	9. STATE/COUNTRY
$7,363,000	P.L. 94-107	310	72003A	New Jersey

10. PROPOSED APPROPRIATION	11. BUDGET ACCOUNT NUMBER	12. PROJECT NUMBER	13. PROJECT TITLE
$7,363,000	6100	B817-817.300	Armament Development Center Facilities

SECTION A - DESCRIPTION OF PROJECT

14. TYPE OF CONSTRUCTION	
a. PERMANENT	X
b. SEMI-PERMANENT	
c. TEMPORARY	

15. TYPE OF WORK	
a. NEW FACILITY	X
b. ADDITION	X
c. ALTERATION	X
d. CONVERSION	X
e. OTHER (Specify)	

16. REPLACEMENT	

17. TYPE OF DESIGN	
a. STANDARD DESIGN	X
b. SPECIAL DESIGN	
c. DRAWING NO.	

18. PHYSICAL CHARACTERISTICS OF PRIMARY FACILITY

a. NO. OF BLDGS 13 | b. NO. OF STORIES * | c. LENGTH Varies | d. WIDTH Varies

e. DESIGN CAPACITY | f. GROSS AREA 324,008 SF

g. COOLING Air Cond CAP. 480 Tons COST $1,566,000

19. DESCRIPTION OF WORK TO BE DONE

Large & Small Cal Ammo/Wpns Fac: Convert Bldg 3150 from warehouse. Construct partitions and mezzanine. Provide pre-engineered addition and pre-engineered open covered storage. Upgrade and expand heating, lighting, electric, sanitary and utilities systems.

Physical Science Labs: Provide partitions, ceilings, floor covering, necessary utilities, roads, walks, and air conditioning for Bldgs 315, 316, 318, 353, 354 and 1609. Construct addition to Bldg 353 with elevated laser tower. Provide target pad where required.

(see attached continuation sheet)

SECTION B - COST ESTIMATES

20. PRIMARY FACILITY	U/M	QUANTITY	UNIT COST	COST ($000)
			$	$ 6,108
a. Alt & Addn - Bldg 3150	SF	110,600	10.47	1,158
b. Alt & Addn - Bldgs 315, 316, 318,353,354 &1609	SF	73,860	13.03	962
c. Alt & Addn - Bldgs 31 and 61	SF	37,960	10.80	410
d. Alt & Addn - Bldgs 18 and 95	SF	40,780	23.41	955
e. Tech Data Fac (New Fac)	SF	30,000	55.27	1,658
f. Alt - Bldg 91	SF	30,808	31.32	965
21. SUPPORTING FACILITIES				1,255
a. Util & Rds - Bldg 3150			LS	1,057
b. Util & Rds - 300 Area Bldgs			LS	37
c. Util - Bldg 61			LS	25
d. Util - Bldgs 18 and 95			LS	41
e. Util - Bldg 91			LS	74
f. Communications			LS	21
22. TOTAL PROJECT COST				$ 7,363

SECTION C - BASIS OF REQUIREMENT

23. QUANTITATIVE DATA (U/M SF)		
a. TOTAL REQUIREMENT	324,008	
b. EXISTING SUBSTANDARD	289,148	
c. EXISTING ADEQUATE	0	
d. FUNDED, NOT IN INVENTORY	0	
e. ADEQUATE ASSETS (c + d)	0	
	AUTHORIZED	FUNDED
f. UNFUNDED PRIOR AUTHORIZATION	0	
g. INCLUDED IN FY _____ PROGRAM	0	0
h. DEFICIENCY (a − e − f − g)	324,008	324,008

24. RELATED PROJECTS None

*Not as yet determined

25. REQUIREMENT FOR PROJECT This project is required to provide urgently needed facilities by modifying and expanding twelve buildings and constructing one new facility at Picatinny Arsenal to accept armament development missions being transferred to that installation from Frankford Arsenal. The mission transfer is a part of the realignment of the Army's armament development and ballistics research communities and is necessary to carry out the decision of the Secretary of the Army to establish an Armament Development Center (ADC) with headquarters at Picatinny Arsenal. The mission of the ADC will be research, development and prototype through first procurement of newly developed armament materiel. It is estimated that the streamlining of armament development activities resulting from ADC operations will effect an annual savings of $37,000,000 over present methods of operation. This project is the first increment of a construction program to provide complete facilities for ADC, and the urgency for its completion is further intensified by the scheduled closure of Frankford Arsenal on 1 September 1977. The best available estimate of costs for the balance of construction to be accomplished in future year programs is $33,000,000. Deferral of this project for inclusion in the next regular Military Construction Program will not be consistent with the interests of national security as it would delay the establishment of ADC and the scheduled closure of Frankford Arsenal.

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1. DATE	2. FISCAL YEAR	MILITARY CONSTRUCTION PROJECT DATA (Continued)	3. DEPARTMENT	4. INSTALLATION
REVISED 23 Feb 76	1976		ARMY	Picatinny Arsenal
5. PROJECT NUMBER		6. PROJECT TITLE		
B817-817.300		Armament Development Center Facilities		

BLOCK 19. DESCRIPTION OF WORK TO BE DONE

Fuze Metal Parts and Fuze Lab: Provide partitions, ceilings, floor covering and air conditioning for Bldgs 31 and 61. Construct addition to Bldg 31 for DC generators. Provide necessary utilities for Bldg 61.

Fire Control Lab: Provide partitions, ceilings, floor covering, air conditioning for Bldgs 18 and 95. Construct addition to Bldg 18 for electro-optics laboratory and provide foundations for dark tunnel contiguous to Bldg 18. Provide required utilities and upgrade heating, lighting, electrical systems, and exterior electric transformers and steam conduits.

Technical Data Fac: Construct pre-engineered building adjacent to Bldg 58 with dark and camera, and quality assurance rooms and other required work and service rooms. Provide heating, air conditioning, required utilities, roads, walks and site improvements.

Optics Prototype Fac: Alter a part of Bldg 91 to provide partitions, ceilings, floor coverings, required insulation, lighting, heating and process air conditioning. Increase power and steam generating capacity.

Test Measuring and Diagnostic Equipment Lab: Modify part of Bldg 91 to provide partitions, lighting, plumbing, heating, ventilation, process air conditioning and electric power.

Mr. SIKES. This is an open meeting and we welcome those who are interested in the discussion.

As Members of the House come in we will welcome them to sit at the table with the members of the committee.

STATEMENT, ASSISTANT CHIEF OF ENGINEERS

Mr. SIKES. General Wray, I believe you have a statement and we would like for you to proceed at this time.

(Biographical sketch follows:)

MAJ. GEN. WILLIAM R. WRAY

Maj. Gen. William R. Wray was born on December 8, 1925, in DeQuincy, La. He was commissioned in the Army Corps of Engineers following graduation from the U.S. Military Academy in 1946.

He holds a master's degree in civil engineering from Texas A&M, is a registered professional engineer in the District of Columbia, and is a graduate of the U.S. Army Command and General Staff College and the National War College.

General Wray's service with engineer troop units has included tours in Vietnam as commander of the 169th Engineer Construction Battalion and command of the 45th Engineer Group. He has served on the Army Staff, in the Office of Assistant Chief of Staff for Force Development, and in the organization of the Joint Chiefs of Staff.

His assignments have included tours with the Joint Construction Agency in France and with the Safeguard Systems Command. He was the officer in charge of the crew which started the Army's first nuclear powerplant and later was among the original investigators who worked in the Atomic Energy Commission's Plowshare program, studying the feasibility of large-scale excavations with nuclear explosives.

General Wray became the first Director of Facilities Engineering, Office of the Chief of Engineers, in January 1974. He assumed duties as the Assistant Chief of Engineers, Office of the Chief of Engineers, in August 1975.

General WRAY. Thank you very much, Mr. Chairman. We are pleased to appear before this committee today to present the Army's request for reprograming of fiscal year 1971 construction funds to support the first phase of a major Army realinement—the reorganization of the Army's armament research, development, and acquisition community.

The requested funds will support the creation of the U.S. Army Armament Research and Development Command. The Army's intent to establish this organization, you will recall, was announced by the Secretary of the Army on December 2, 1975. Its headquarters and several major mission elements are to be at Picatinny Arsenal, Dover, N.J. Other mission elements are to be located at Aberdeen Proving Ground, Md., and Watervliet Arsenal in New York. Those mission functions of Frankford Arsenal which relate to the new organization will be transferred to Picatinny. Frankford Arsenal is scheduled to be closed by September 1977, as part of this overall realinement action.

The realinement is scheduled over a 4-year period, fiscal years 1976 through 1980, and will affect a total of 122 military and 5,775 civilian jobs; 43 military and 2,612 civilian jobs will be eliminated and 79 military and 3,163 civilian jobs will be transferred. The estimated reduction in annual operating costs upon completion is approximately $37 million. This does not include approximately $5 million that has accrued from workload reduction. One-time costs of the realinement were originally estimated to be about $86 million, of which approxi-

mately $38 million was for construction. We expect to stay within these figures.

This realinement action represents a rational attempt to consolidate our geographically dispersed armament research, development, and acquisition elements within real world dollar constraints and within relatively reasonable levels of personnel turbulence. Our planned construction program makes maximum utilization of existing facilities to keep costs as low as possible, yet permit a physical plant which meets current technological needs.

Construction requirements are in three stages. Stage I is the request currently before you for $7.363 million. It is all for work at Picatinny Arsenal. It is time-critical, for it supports the transfer of functions from Frankford Arsenal. It is essential to permit closure of Frankford on schedule and to begin realizing the savings which will result from that action.

Stage II will be a request for $27.1 million for Picatinny and Rock Island Arsenals in the fiscal year 1978 MCA submission. Stage III will be a request for $2.2 million for Picatinny in the fiscal year 1979 MCA request.

I have here with me today Mr. Manfred Gale, of the Office of the Deputy Chief of Staff for Research, Development, and Acquisition; Col. Victor Underhill and Col. Lee Doyle, both from the U.S. Army Materiel Development and Readiness Command (DARCOM). They will assist in responding to your questions.

Additionally, the Army has a project to replace the main building of the Sagamihara Elementary School in Japan which was destroyed by fire earlier this year.

Mr. Chairman, that completes my formal statement.

I believe as a basis for a better understanding of the realinement action I would like to have Colonel Doyle present a short briefing of the manner in which the decision was made and the reasons for that decision.

Colonel Doyle, I might say, is the Director of the Armaments Research and Development Command Implementation Task Force and is very, very familiar with the details of the planning that has gone on in the past.

BRIEFING

Colonel DOYLE. Mr. Chairman, my purpose is to provide useful background for the reprograming request before you by briefly outlining the process and the rationale the Army followed in reaching its decision to reorganize the Armament Command into a Research and Development Command and a Materiel Readiness Command.

May I have the first slide?

[Slide follows:]

SUMMARY OF DECISION PROCESS

April 30, 1974: AMARC recommendation.

December 31, 1974: Army verification of AMARC recommendations—Issue of study concept plan.

January 24, 1975: Army ranked three preferred courses of action.

February 18–28, 1975: Congressional delegations briefed.

May 1, 1975: Army received congressional comments.

June 25, 1975: Review of congressional comments completed—Revised alternatives prepared.

August 29, 1975: Army audit agency's validation of decision documentation.
December 2, 1975: Announcement of decision.
July 19, 1976: GAO review.

Colonel DOYLE. This shows the decision milestones that have been reached. The Army Materiel Review Committee was a blue ribbon panel of distinguished and knowledgeable personnel from the private sector and the government.

ARMY MATERIEL ACQUISITION REVIEW COMMITTEE MEMBERSHIP

Mr. SIKES. You propose to provide a list of those individuals for the record?

Colonel DOYLE. We will do so.

[The list follows:]

Members of Army Materiel Acquisition Review Committee

Director's Office

Dr. Wendell B. Sell - President and Chief Executive Officer, Hoffman Electronics Corporation; 1965-69, President and Chief Executive Officer of Packard Bell Electronics; Major General, USAF Reserve.

Major General Frank A. Camm - Assigned to Office, Chief of Staff, Army; 1972-73, Assistant General Manager (Military Applications) Atomic Energy Commission; 30 years service in U.S. Army.

Dr. William M. Duke - Chairman of the Board, Tasker Industries, Dynasciences Corporation, Will Duke and Associates, Interconnect Resources Inc., Systemation Inc., and Modulearn Inc., Los Angeles, California; 1964-70, President, Whittaker Corporation, Los Angeles.

Requirements & Concepts Team

Dr. Thomas S. Amlie - Acting Chief, Advanced Concepts Staff, Office of Systems Engineering Management of Federal Aviation Agency; 1952-70, Naval Weapons Center.

Dr. William H. Pickering - Director, Jet Propulsion Laboratory; 1936-51, Instructor and Professor, California Institute of Technology.

Mr. Haskell G. Wilson - Recently retired as Technical Director, Naval Weapons Center, after 23 years service there.

Development Team

Mr. Oliver C. Boileau, Jr. - President, Boeing Aerospace Company; 1968-71, General Manager of Boeing Missile Division responsible for Minuteman and SRAM missiles; 1971 to present, Member of Defense Science Board (DOD).

Mr. Daniel J. Fink - Vice President and General Manager, Space Division, General Electric Company; 1963-67, Office of Director of Defense Research and Engineering; Member of Army Scientific Advisory Panel.

Mr. David Shore - Division Vice President, Plans and Systems Development, RCA Corporation; 1954-70, Many jobs in R&D with RCA Corporation in aeronautics, radar, missile, communications, and other areas; U.S. Air Force, 1941-54.

Production Team

Mr. Frank Sanders - President, Logistics Management Institute, Washington, D. C.; 1972-73, Under Secretary of the Navy; 1971-72 Assistant Secretary of Navy (FM); 1969-71 Assistant Secretary of Navy (I&L); 19 years service on Committee on Appropriations, US House of Representatives.

Alfred L. Esposito, BG (Ret) - Manager, Fairchild Burns Company, Fairchild Industries, Winston Salem, N.C.; 1943-73, US Air Force, many assignments in R&D, to include Program Director of F-111 Program.

Dr. Joseph F. Shea - Senior Vice President and General Manager, Equipment Division, Raytheon Co.; 1962-67, Deputy Director, Office of Manned Space Flights and Manager of Apollo Spacecraft Program, NASA; Member, Defense Science Board (DOD).

Costing Team

Dr. Richard D. DeLauer - Executive Vice President of TRW Inc.; 1958-70 assignments in TRW: Director of ICBM Development, General Manager of Systems Engineering and Integration Division; Member of Defense Science Board (DOD); Active Duty, US Navy, 1943-58.

Mr. Richard C. McCurdy - Consultant, NASA; 1970-73, Associate Administrator, NASA; 1965-69, President and Chief Executive, Shell Oil Company.

Dr. John P. White - Vice President, The RAND Corporation; 1968-71, Director, Manpower Research Program, The RAND Corporation; 1964-68, Professor Lemoyne College.

Testing Team

Mr. Roy P. Jackson - Corporate Vice President, Program Management, Northrop Corporation; 1970-73, Associate Administrator, Aeronautics and Space Technology, NASA; 1962-70, Division Vice President and Assistant General Manager, Northrop Corporation.

Mr. Victor G. Raviolo - Director, Raviolo Associates, Grosse Point, Michigan; 1966-68; Group Vice President, American Motors Corporation; 1945-66, Ford Motor Company.

Dr. Eugene D. Reed - Executive Director, Ocean Systems Division, Bell Telephone Laboratories; 1947-71, Member of Technical Staff, Bell Laboratories.

Science & Technology Team

Mr. Earl J. Morgan - Executive Assistant to Vice President, Eastern Region, McDonnell Douglas Corporation; 17 years service on Committee on Government Operations and Armed Services Committee of U.S. House of Representatives.

Dr. Gerald P. Dinneen - Director and Professor of Engineering, Lincoln Laboratory, MIT; Vice Chairman, USAF Scientific Advisory Board.

Dr. Gus D. Dorough, Jr. - Associate Director of Lawrence Livermore Laboratory; 1971-73, Deputy Director for Research and Advanced Technology in the Office of the Director of Defense Research and Engineering.

Mr. Lawrence H. O'Neill - President, Riverside Research Institute, N.Y., N.Y.; 1957-70, Professor of Electrical Engineering, Columbia University; Chairman of US Army Scientific Advisory Panel; Member of Defense Science Board (DOD).

Support Staff of Army Materiel Acquisition Review Committee

Director's Office

Brigadier General Bennett L. Lewis - Chief, Requirements and Development Division, J-5, Organization of Joint Chiefs of Staff; 1969-72, Commander, Mobility Equipment Research and Development Center and Director RD&E, Mobility Equipment Command; 25 years service in US Army.

Colonel Louis C. Wagner, Jr. - Deputy Director, Materiel Programs Directorate, Office, Chief of Staff, Army; 1971-72, Advisor to Vietnamese Infantry and Armor Units, Military Assistance Command, Vietnam; 19 years service in US Army.

Requirements and Concepts Team

Colonel John F. Brewer, Jr. - Division Chief, Systems Management Division, Doctrine and Organization Directorate, Office of the Assistant Chief of Staff for Force Development, DA; 1970-71, Advisor to Deputy Director General of Highways, Ministry of Public Works, Military Assistance Command, Vietnam; 21 years service in US Army.

Mr. William H. Connerat - Senior Research Analyst, Operations Analysis Division, General Research Corporation; 1963-72, Senior Research Analyst, Logistics and Resources Analysis Divisions, Research Analysis Corporation.

Mr. Francis W. Shepherd - Point of contact with Logistics Management Institute (LMI); Presently Senior Project Director, LMI; 1963-66, Planning Staff Engineer, Honeywell, Inc.

Development Team

Colonel Robert L. Moore - District Engineer, Buffalo District, Corps of Engineers; 1969-72, Director, Plans and Analysis, US Army Materiel Command; 21 years service in US Army.

Mr. Charles B. Einstein - GS-14; Management Analyst, Army Materiel Command; 1965-70, Program Analyst, US Army Materiel Command; 1963-65, Review and Analysis Officer, US Army Materiel Command; 20 years with Civil Service.

Mr. Warren C. Heintzelman - GS-15; Chief, Installations Logistics Support Division, US Army Materiel Command; 1969-72, US Army Materiel Command, Europe; 1965-69, served as a deputy project manager; 24 years with Civil Service.

Mr. Theodore V. Liss - Point of contact with the Logistics Management Institute (LMI); Senior Project Director, LMI; 1966-68, Senior Research Associate, LMI; 1968-69, Executive Vice President, Eyler Associates.

Production Team

Lieutenant Colonel Fred E. Elam - Special Projects Directorate, Office, Chief of Staff, Army; 1970-72, Director, Depot and Transportation Management Department, U.S. Army Logistics Management Center; 14 years service in US Army.

Mr. William L. Clemons, GS-15; Acting Deputy Director, Requirements and Procurement Directorate, Headquarters, U.S. Army Materiel Command (AMC); April-August 73, Acting Chief, Procurement Policy Division, Headquarters, AMC; 32 years of combined Military and Civil Service.

Mr. Robert L. Stohlman, GS-15; Special Assistant for Major Weapon System Acquisition, Office, Deputy Assistant Secretary of the Army (Installations and Logistics); 16 years with Civil Service.

Costing Team

Lieutenant Colonel William J. Fiorentino - Staff Officer, Office, Chief of Research and Development, Army; 1969-71, Instructor, Defense Weapons Systems Management Center; 1966-68, R&D Coordinator, ARPA; Member, US Army R&D Career Field; 17 years service in US Army.

Mr. Joseph W. Noah - President, J. Watson Noah Associates, Inc.; resource analyst since 1958; Active Duty, US Air Force 1951-58.

Mr. C. David Weimer - Point of contact with Institute for Defense Analyses; 1960-69, Program Manager Space Propulsion, United Aircraft Corp.; Member of Defense Science Board Panel on Avionics and ODDR&E Electronics-X Study Team.

Testing Team

Colonel Theodore C. Williams, Jr. - Chief, Operational Test and Evaluation Agency Coordinating Office, Office of the Assistant Chief of Staff for Force Development, Army; 1973-74, US Army Operational Test and Evaluation Agency; 26 years service in US Army.

Mr. F. Donald Genova - Senior Analyst, General Research Corporation; 1960-65, Test Engineer, AVCO Corporation Test and Evaluation Directorate; 1958-60, Raytheon Company; 1956, General Motors Corporation.

Dr. Eugene W. Lewis - Staff Scientist, System Planning Corporation; 1969-72, Institute for Defense Analyses; 1956-69, many jobs in RDT&E at North American Rockwell Corporation and the Bendix Corporation.

Mr. Edward V. Somody - GS-15; Technical Director for Test Operations, US Army Test and Evaluation Command (TECOM); 1962-73, many jobs in field of testing with TECOM as engineer, project officer, test practices and standards, and R&D; 15 years with Civil Service.

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Science and Technology Team

Colonel Alan A. Nord - AMC Project Manager for SAFEGUARD Munitions; 1970-72, Chief of Nuclear Plans, Central Army Group, NATO; 23 years service in the US Army.

Mr. Manfred Gale - Scientific Advisor, Department of the Army; 1968-70, Associate Technical Director, Mobility Engineering Research and Development Center (MERDC); 1966-68, Director, Intrusion Detection and Sensor Laboratory, MERDC.

Dr. Joel Bengston - Point of contact with Institute for Defense Analyses (IDA); 1962-Present, Assistant to President for JASON, Research Staff Member of Science and Technology Division and Research and Engineering Support Division, IDA.

Colonel DOYLE. They were appointed to assess the Army's materiel and weapons acquisition process and recommend necessary changes for its improvement.

Mr. SIKES. Appointed by whom?

Colonel DOYLE. The Secretary of the Army, sir.

In the report of April 30, 1974, one of the key recommendations which I will discuss in a moment was to improve development and acquisition of armament systems.

LEWIS REPORT

One month after receipt of the AMARC report, the Army established its own in-house study group, headed by a general officer, to make a detailed evaluation of this recommendation and to develop alternative means of accomplishing needed improvements. This completed study was submitted on December 31, 1974; it designated three alternatives as preferred courses of action. The Secretary of the Army directed that briefings of the entire study be provided to interested congressional delegations and committees for their comments prior to making any decision.

BRIEFING OF CONGRESSIONAL DELEGATIONS

Mr. SIKES. Does that involve actual meetings with the affected members of Congress?

Colonel DOYLE. Yes, sir, the delegations were briefed, and ample opportunities for discussion were provided.

By May 1, 1975, the five delegations concerned had submitted an extensive body of comment. These provided the basis for revisions of several of the alternatives. Well before the final decision the Army Audit Agency independently examined the statistical and narrative documentation and established its validity as a sound basis for the making of the decision. The decision by the Secretary of the Army, concurred in by the Secretary of Defense, was announced on the 2d of December 1975.

GAO has recently reviewed the documentation. It is our understanding that the GAO review just completed has not uncovered any issues which would negate the objectives or the implementation of this realinement.

AREAS NEEDING IMPROVEMENT

[Slide 2 follows:]

AREAS IN THE ARMAMENT COMMUNITY NEEDING CORRECTION

Subordination of development.
Fragmentation of effort.
Lack of output orientation.
Weak link with user.
Overcontrol.
Acquisition system rigidity.
"Not-invented-here" attitude.

Colonel DOYLE. Both AMARC and Army studied these areas and they identified these areas as needing correction if the acquisition process is to be improved.

As you may note, the Armament Command is currently responsible for research and development as well as the logistic support and readiness of Army materiel.

At present the R. & D. effort in armament is geographically and organizationally dispersed among five locations and arsenals. These first two major problems lend themselves to organizational solutions.

Mr. SIKES. Where are the five? What are the names of the five?

Colonel DOYLE. Watervliet Arsenal in New York; Frankford Arsenal in Philadelphia, Pa.; Edgewood Arsenal at Edgewood, Md.; Picatinny Arsenal in Dover, N.J.; and Rock Island Arsenal, Rock Island, Ill.

The remaining five items shown as needing correction are problems of management and orientation which become easier to handle once full-time management of the development functions are established.

Mr. SIKES. Do you propose to consolidate all of your activities of this type at Picatinny?

Colonel DOYLE. As the briefing will describe later, the headquarters for the Research and Development Command is to be located at Picatinny Arsenal.

Mr. SIKES. Will you give us, during your discussion, the effects on personnel at each of the posts which are affected and what activities will be continued at each? Will that be included in your briefing?

Colonel DOYLE. I can add that to the briefing, sir.

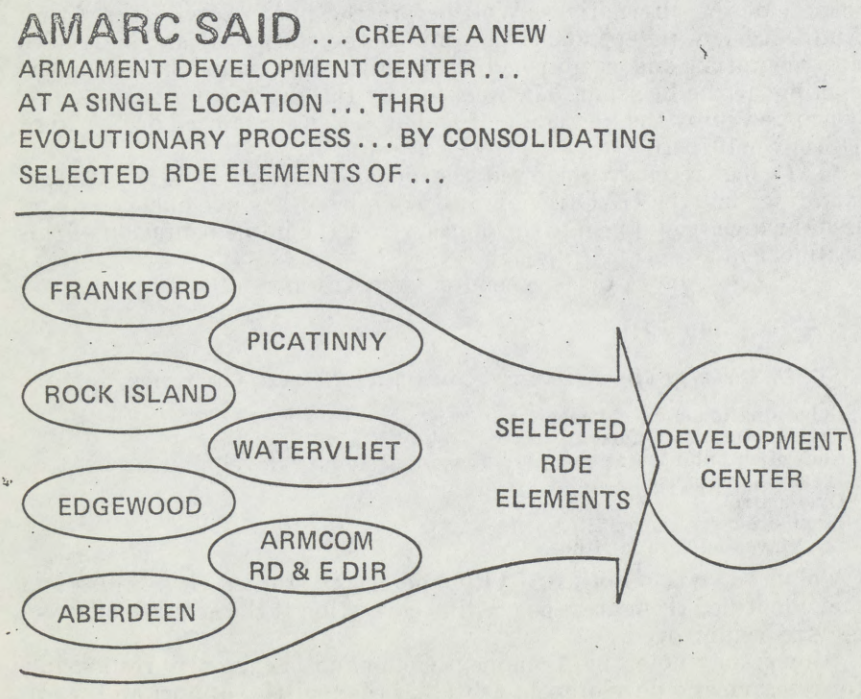
Mr. SIKES. It would be useful to the committee.

Colonel DOYLE. We can certainly provide the details for the record.

[The information appears on page 118.]

AMARC PROPOSALS FOR ARMAMENT DEVELOPMENT CENTER

(Slide 3 follows:)



SLIDE 3

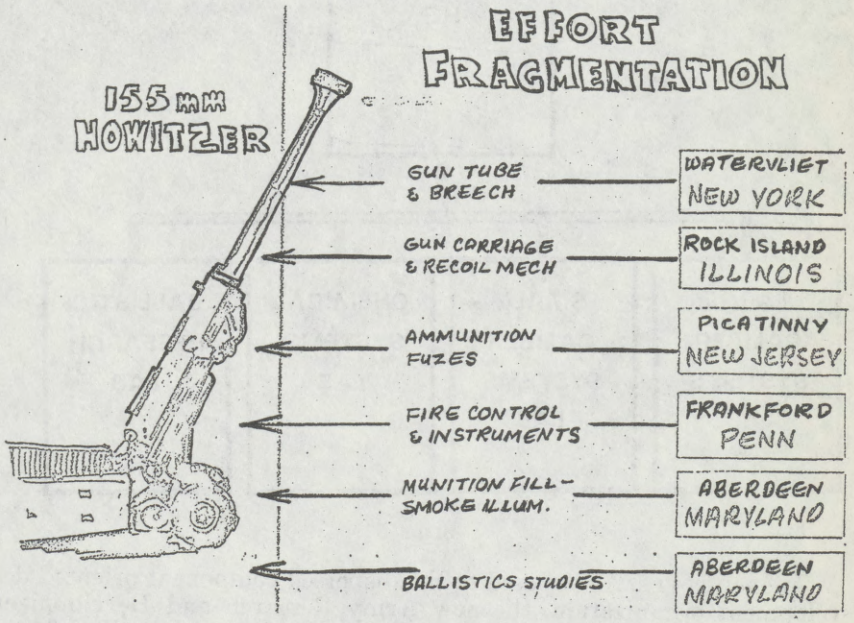
Colonel DOYLE. We were to create a new development center at a single location by consolidating selected elements of those indicated there [slide 3]. Those are the five arsenals plus the entry for Aberdeen which refers to the Ballistics Research Laboratory there as well as the Armament Command, Research and Development directorate now located at Rock Island, along with Rock Island Arsenal.

Mr. SIKES. You are proposing to remove from the arsenals shown selected research, development and engineering elements. They will be consolidated at the single development center, is that correct?

Colonel DOYLE. No, sir. This was the recommendation of AMARC. In the course of the Army study, other alternatives for achieving the objectives cited were examined and a preferred alternative, which did not locate everything at a single site was adopted. I will discuss the selected alternative in the course of the briefing.

FRAGMENTATION

[Slide 4 follows:]



SLIDE 4

Colonel DOYLE. This slide [slide 4] is provided to illustrate how the development of a weapons system, in this case a towed artillery howitzer system—is presently fragmented into developments by components within the various arsenals.

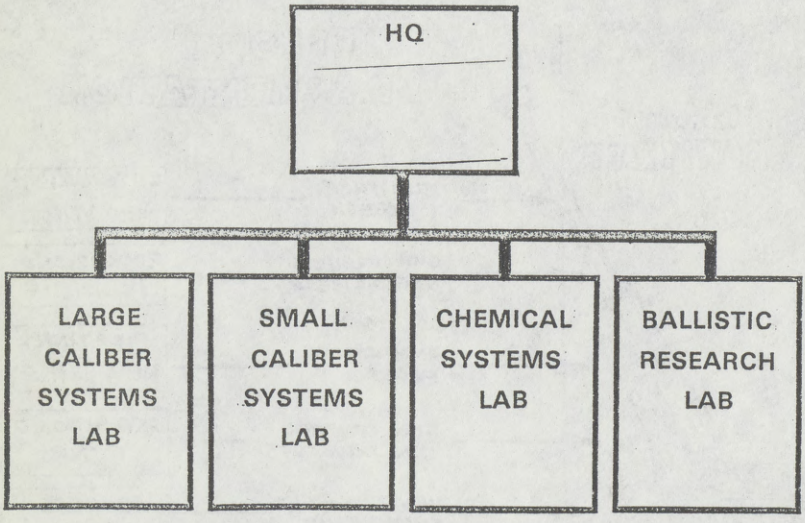
The gun tube and its breech mechanism is now developed at Watervliet. The gun carriage on which it will ride and the recoil mechanism for the two are developed at Rock Island, Ill. The rounds of ammunition which affect and are affected by the other systems components are developed at Picatinny Arsenal in New Jersey, but the metal parts for those rounds are developed at Frankford Arsenal in Philadelphia.

The fire control devices and instruments are also developed at Frankford Arsenal. The chemical warhead is developed at Edgewood Arsenal, Md. The fuzes are developed at Frankford, Picatinny, and also some at the Harry Diamond Laboratories in Adelphi, Md. Ballistic studies are done in Aberdeen Proving Ground, Md., and to some extent at all other arsenals except Rock Island Arsenal.

Clearly no one starting with a clean slate would organize in this way to develop weapons systems with interfaces as complex as those among propellants, breeches, projectiles, recoil mechanisms, gun tubes, supporting carriages, fire control instruments, fuzes, and the desired effect on target and systems costs. But here we are dealing with the results of many individual decisions made over a period of many years and most were logical at the time they were made.

PROPOSED ORGANIZATION

[Slide 5 follows:]



SLIDE 5

Colonel DOYLE. As opposed to the dispersed component oriented development organization, the new Army Research and Development Command will create three systems laboratories, each capable of and responsible for developing or improving the completely integrated system from the gun carriage on the ground to the fuze on the tip of the projectile.

The systems laboratories and the reorganized ballistic research laboratory will provide an in-house technology base which will be complemented by projectile research to sustain momentum in armaments research.

[Slide 6 follows:]

MISSION FOR ASSIGNED ARMAMENT SYSTEMS, COMPONENTS, AND RELATED MATERIEL

Develop product improvements—and new items—and provide transition into quantity production—make initial procurement.

Maintain strong technology base—in Government, industry, and universities—from which to evolve improved items and to prevent technological surprise.

Provide technical support to agencies with operational and logistics responsibilities for fielded items.

Colonel DOYLE. With this in mind, the mission statement shown in slide 6 was developed for the Armament Research and Development Command. The command is to develop improved items with emphasis on bite-size improvements as well as new items. There is responsibility for initial procurement and the command will insure that the technical data package—that is, the manufacturing specification—is adequate for all followon procurements. The technology base development is to be supplied by universities and industry as well as in the Government.

This technology base is to provide a hedge against uncertainties in the future and ideally provide some surprises for the enemy while preventing surprise by him.

NEED FOR CONSOLIDATION

Mr. SIKES. Colonel, all of the things you are talking about can be done at present locations. Can you tell us a little more specifically what you propose to gain by the transfers and the consolidations?

Colonel DOYLE. Yes, sir. At the present time the only place the entire system comes together in any management sense is at Rock Island, Ill. There is no integrated effort at the bench level where the development takes place.

For example, if the Director of Research, Development, and Engineering at Armament Command were to reach for the developers of all the components of a system, his official channel—although, of course, he could operate informally and often does—would be through the Armament Command Commander's Office to each of the arsenals concerned; the arsenal commander then to his particular research and development element, be it a laboratory or an activity within his arsenal. This means that at Picatinny Arsenal, for example, the developer of a round of ammunition would have to concern himself with how the gun tube is being developed at Watervilet Arsenal, how the metal parts, which are going to be essential to his round, are being developed at Frankford Arsenal. He would be involved directly in the propellant and explosive development except for chemical fill, smoke, and illuminants, which he would coordinate through another arsenal structure at Edgewood.

Mr. SIKES. It seems rather late to get into a reorganization of this type, which is something that has been important to you through the years. Why does it just now surface?

Colonel DOYLE. It has been a matter of concern for some time, sir. It is not a new area of concern. Problems with weapons development have been a source of difficulty to the Army and in some cases a matter subject to criticism from the Congress. This realinement provides an opportunity to do something the Army had been progressing toward for some time. Previously, there had been a pulling together of the gun and the bullet, if you will, at the headquarters level only.

Mr. SIKES. Are you developing new activities that will help us to stay abreast of—at least abreast of—the Russians in this field? Are they making improvements which are known to us which require that

we take steps such as this, or consolidation, and hopefully improvement of our own activities?

Colonel DOYLE. There is much concern in that direction, sir.

Mr. SIKES. Can you be specific on any of it?

Colonel DOYLE. Not on Soviet developments, as such.

[Additional information follows:]

But I can say that our hope against the Soviet threat relies on the quality, sophistication, realiability, and effectiveness of our guns . . . not quantity. Therefore, the need to improve is more compelling now than ever.

Mr. SIKES. I want you to be able to make your best case. I don't want to interrupt you, but we are getting a lot of words which haven't really told us very much. We need to know why you propose to do this in very clear and simple language and what you lose if you are not allowed to proceed.

Again, this committee cannot prevent these changes or transfers. All that we can pass on is the reprograming which would provide the money for the facilities which the Army wants.

Mr. GALE. The Army perceives its future readiness for artillery to rely on long-range increased accuracy and increased mobility.

We admit we have suffered from the lack of innovative approach as to this subject. We have fallen behind in our own attempts.

We have not achieved the reliability or the ranges we have always wanted, and we have stretched a fairly antiquated R. & D. arsenal system to a very advanced 20th century here.

We in the Army recognize that very clearly and many people on the AMARC had much experience in the research and development field and, of course, they have also recognized that we must do something in order to recover from this lethargic state——

Mr. SIKES. I agree with what you are saying. I recognize the necessity for improvement. There are areas in which we are not keeping up and this must be corrected, but you haven't shown me how it is that these realinements of activities at a number of bases are going to contribute significantly to that.

If you need modernization and improvement, why is it necessary to proceed in the way you are proposing to gain this?

Colonel DOYLE. The modern artillery piece is no longer just a simple cannon. It involves many components, some of them very sophisticated such as the fire control, the munitions, the fuzing, and the many other subsystems. Unless that integration is properly effected from the systems point of view, we will continue to stretch our developments into 15 to 20 years, which is about the average for an artillery piece today.

By putting the systems approach into one laboratory area and by joining that system approach with another laboratory of smaller caliber, allowing them to exchange technology in these areas, and allowing them to exchange subsystems, we are creating an environment and an opportunity for pulling ourselves up by our own bootstraps, and for getting into this forward-looking posture of readiness which the Army feels it needs.

Mr. SIKES. With the modern technology and state of the art developments, you feel it is necessary to have all of these specific activities in one area where you can watch development from inception to completion?

Colonel DOYLE. Certainly the greatest amount of these elements should be in one area, yes, sir.

Mr. SIKES. Why could you not have one activity at one arsenal, another activity at another arsenal, rather than parts of each activity at several arsenals?

Colonel DOYLE. You could, of course, and that it what we have now, but the inefficiencies created by this—from a technical point of view, you get into infinite arguments of what we call interface specifications. You have to negotiate with two or three parties about making the subsystems fit——

Mr. SIKES. You can clear that up by command directive.

Mr. GALE. Unfortunately, command directives are not necessarily solutions to scientific problems.

Mr. SIKES. I am not trying to be for or against this proposal. I want the facts.

CURRENT DEVELOPMENT PROCESS

Mr. MURTHA. I wonder if you could explain how a system is developed now, giving us an example rather than these words which I don't follow?

Mr. SIKES. I don't think anyone is following the words. I think we need specific examples of what you are talking about.

Mr. GALE. Why don't you put that viewgraph back up again?

[Slide 4 shown again.]

[Editor's note: Refer to page 17.]

Mr. GALE. This is a typical example of how our 155-millimeter howitzers are developed today. You see that we are dealing with at least six different organizations and probably a couple of more as far as the testing is concerned. In this type of development, the kind of design that pertains to the tube and the breech mechanism and those that pertain to the ammunition have to be very closely and carefully matched in order to get not only the resulting accuracy, but the resulting reliability and maintainability of the weapon that you see on the slide.

The fire control systems cannot be done independent of the weapons system because the mounting, the physical properties, the training, everything has to be integrated with the basic design of the weapon.

I am here to tell you that under this kind of a system one of our most modern longer range 155-millimeter howitzers is currently experiencing difficulties and has already necessitated a stretched-out program.

Mr. MURTHA. You keep beating around the bush. How do you do this? Tell us what happens. Tell us how this thing is developed.

Is it developed in all these different places and put together in one central location? What happens?

Mr. GALE. It is developed in all these different places. Let's say it comes together at Rock Island.

You start performing tests. You find out that you have a failure of the round——

Mr. MURTHA. Go back to the beginning of the weapon. Where does this initiate? Where does the idea for a new weapon initiate?

Mr. GALE. The idea initiates in our training and doctrine command, which issues a requirement——

Mr. MURTHA. Where is that located?

Mr. GALE. That is at Fort Monroe.

Mr. MURTHA. That is separate completely, and you are not going to change that at all. Your concept of the new weapon is developed at Fort Monroe?

Mr. GALE. That is correct.

Mr. MURTHA. Then what happens?

Mr. GALE. That concept is given to the Department of the Army for execution. The Department of the Army forwards that——

Mr. MURTHA. At what stage is this weapon developed and is there a demonstration instrument available?

Mr. GALE. Uusually you go through a conceptual stage in which you construct prototypes of subsystems and total systems——

Mr. MURTHA. So you have a firing weapon that has been developed centrally at Monroe, is that right?

Mr. GALE. No, sir. Only the requirements have been developed. The firing weapon is developed today by the Armament Command in its laboratories and arsenals.

Mr. MURTHA. Where is that now?

Mr. GALE. That is all over the place.

The headquarters are in Rock Island and the stations that physically do the hands-on-work are in these several locations which we have been talking about plus the contractor support.

Mr. MURTHA. Where do you put it together?

Mr. GALE. You put it together either at a contractor, or you put it together at one of the arsenals. Typically you would put it together, let's say, at Rock Island.

Mr. MURTHA. Where do you fire it then?

Mr. GALE. You fire it at several ranges.

We fire at Aberdeen Proving Ground, we fire at Rock Island. Jefferson Proving Ground, and others. There are many places where we have different ranges set up to meet different needs.

The problem arises not when everything is working which, unfortunately, it doesn't always—but when things begin to get a little troublesome and you then have to start redesigning or matching the components to a specification which will make the "whole" operate as a viable system. Unfortunately, the control over that system today is not as tight or neat or as efficient as it could be.

It would be very similar to trying to buy an automobile by not having a central facility for the design and development of this automobile, but by trying to get parts from a catalog and attempting to put them together.

Mr. MURTHA. It seems to me the problem is control rather than physical location of the individual manufacturer of the parts.

Where do you finally consolidate the manufacture, at what location? Where do you put it together?

You have it manufactured in separate locations, but where do you put the weapon together?

Mr. GALE. The weapon might be assembled by a contractor or by Rock Island Arsenal or one of the other arsenals.

Mr. MURTHA. Rock Island puts together the final weapon, or the prototype?

Mr. GALE. It could be, yes.

PROPOSED DEVELOPMENT PROCESS

Mr. SIKES. How would this be changed under the proposed consolidation?

Mr. GALE. Under the consolidation, as you will see in a just a minute, we will have the total large caliber weapons systems laboratory, as well as the total small caliber weapons systems laboratory with the managers, the operators, the executive vice presidents all in one location. We will have only a small part of the Large Caliber Weapons System Lab in direct support of the tube manufacturing continue at Watervliet, because that facility is excellently suited for the job and is of national importance to the defense effort.

Mr. MURTHA. Won't you have the same situation if you still have three or four locations? You will have three or four locations instead of five or six. I don't see the advantage there. You are centralizing control, which I see as a distinct advantage.

Mr. GALE. We are putting in one research and development environment the development of the ammunition, the fuze, the carriage, the breech mechanism, and the fire control.

Right now, sir, we are doing that in five locations. After the reorganization, we will be doing that in one location. We will be buying some of the technology base from Aberdeen Proving Ground, but we will buy no system work from them.

Mr. MURTHA. Where will you put it together then? Where will you finally put the weapon together?

Mr. GALE. At the Picatinny Arsenal or at a contractor's plant.

PERSONNEL

Mr. SIKES. Do you propose, at Watervliet, to transfer or eliminate 104 civilian and 20 military personnel? Is that correct?

Mr. GALE. That is correct.

Mr. SIKES. How many will be left at Watervliet in each category?

Colonel DOYLE. I believe that is 104 civilian and 2 military.

Mr. SIKES. I have 20 here.

How many will be left at Watervliet? That is the question.

Colonel DOYLE. Just over 300 within the development laboratory there.

The total arsenal population I do not have immediately available.

[Information follows:]

The population at Watervliet Arsenal will be 2576 civilians and 24 military.

Mr. SIKES. At the Frankford Arsenal, the sheet shows a loss of 2,740 military and 204—do I read this chart right?

What is the loss in personnel, military and civilian, at Watervliet?

Mr. GALE. The loss is 104 civilians.

Mr. SIKES. No military?

Mr. GALE. No, sir, two military.

Mr. SIKES. At Frankford Arsenal the loss is what?

Mr. GALE. The loss will be 2,779 personnel.

Mr. SIKES. How many military? How many civilians?

Mr. GALE. I think they are almost all civilians.

[The information follows:]

The reduction in personnel at Frankford Arsenal includes 2,754 civilians and 25 military.

Mr. SIKES. How many will be left at Frankford?
Mr. GALE. There will be none left.
Mr. SIKES. You close it out completely?
Mr. GALE. Yes, sir.
Mr. SIKES. How many military and how many civilian will be lost to Aberdeen-Edgewood?
Mr. GALE. There will be 441 civilians lost to Aberdeen-Edgewood.
Mr. SIKES. No military?
Mr. GALE. One military.
Mr. SIKES. How many will be left?
Mr. GALE. I don't know exactly.
Mr. SIKES. Provide that figure for the record.
[The information follows:]

After completion of the action, the on-board strength of Aberdeen Proving Ground will be 3,084 military and 8,005 civilians for a total of 11,089. The 3,084 military does not include students which average 2,500–3,000 in number.

Mr. SIKES. At Picatinny you show a gain of 1,064, is that correct?
Mr. GALE. Yes, sir.
Mr. SIKES. How many military? How many civilian?
Mr. GALE. I am sorry, I don't have that number.
Mr. SIKES. You should have.
Provide it for the record.
[The information follows:]

The action will result in a gain of 37 military and 1,064 civilian spaces at Picatinny Arsenal.

Mr. SIKES. At Rock Island what will be the loss and in what category?
Mr. GALE. In Rock Island the total loss will be 485.
Mr. SIKES. Military or civilian?
Mr. GALE. Again they will be mostly civilian.
I will have to provide the military for the record.
Mr. SIKES. How many will be left at Rock Island? General, this information should be available to the committee.
General WRAY. Yes, sir. I will provide that for the record.
[The information follows:]

The net impact on Rock Island Arsenal includes a reduction of 45 military spaces out of a total of 485 total spaces. At the completion of this action the projected onboard strength will be 303 military and 7,559 civilians.

Mr. SIKES. There is a loss shown of 49. What does that mean?
Mr. GALE. There are transfers to organizations that are not currently in the armament community. There was some slight mismatch of personnel who were doing work in materials research and in automotive research and in other areas, they are being distributed to laboratories such as MERDC at Fort Belvoir, and the Tank Automotive Command, and the Materials and Mechanics Research Center in Massachusetts.
Mr. SIKES. The total net loss to the service in personnel is what?
Mr. GALE. It is 2,650.
Mr. SIKES. Is that the way you accomplish your saving of $37 million a year, by the reduction in personnel?
Mr. GALE. A principal part of the savings is due to the reduction of personnel.

Let me qualify that. Some of the personnel that have been reduced are being partially replaced by contract. Those that are being replaced by contract——

Mr. SIKES. If you are replacing people by contract, that is not a saving to the Government.

Mr. GALE. That is correct. Those have been subtracted. That is why I wanted to qualify my response.

Mr. SIKES. That still is a net loss of 2,650, counting contract add-ons.

Mr. GALE. There are some of those employees who are converted to contract.

Mr. SIKES. What is the number? Do you know?

Mr. GALE. No, sir, I don't know the exact number.

Mr. SIKES. General, I am not sure you are ready for this hearing.

General WRAY. Sir, I apologize for not having the details.

With regard to your question on Rock Island, the 485 is the net personnel change. The population at Rock Island will be 7,862 after this action.

Mr. SIKES. I would like to have accurate figures on each of the areas that I mentioned.

[The information follows:]

Out of the total personnel space reduction of 2,650 (including 39 military and 2,611 civilians) 1,206 civilian spaces were converted to contract and were not included in the projected dollar savings resulting from this realinement action.

CONSTRUCTION COSTS

Mr. SIKES. You are proposing a $7,363,000 first-time cost in construction.

There will be some $33 million in subsequent costs. Is that for construction?

General WRAY. Yes, sir.

Mr. SIKES. That is all construction?

General WRAY. This is all construction.

Mr. SIKES. All at Picatinny?

General WRAY. No, sir. Part of this is at Rock Island.

Mr. SIKES. Could you give us a breakdown of the present construction request? Is that all at Picatinny?

General WRAY. Yes, sir, we will provide the breakdown.

Mr. SIKES. Can you give us a breakdown on the construction proposed in the out years, the $33 million; where that will be spent?

General WRAY. I will give you a precise breakdown. I have it available, sir.

Mr. SIKES. You can provide it for the record.

[The informations follows:]

Breakdown of present construction request. All construction is at Picatinny:

Title	*Cost (CWE) (in thousands)*
Fuze metal parts facility	$435
Physical sciences laboratory—phase I	999
Prototype facility	2,236
Fire control laboratory	996
Technical data facility	1,658
Optics prototype facility	776
Test measurement and diagnostic equipment facility	263
Total	7,363

Breakdown of construction required for outyears:

Title	Location	Fiscal year	Cost (CWE) (thousands)
Physical science lab, phase II	Picatinny Arsenal	1978	$2,563
Energetics lab	do	1978	5,662
Pyrotechnics lab	do	1978	755
Administration/engineering building	do	1978	15,341
Alterations to buildings	Rock Island Arsenal	1978	2,768
Building conversions for additional administration/engineering space.	Picatinny Arsenal	1979	[1] 2,208
Total			29,297

[1] This project is a part of a project at Rock Island Arsenal with total cost, including this project, currently estimated at $7,780,000. The remaining balance is required for other requirements at the installation which are not attributable to this armament community realinement.

Mr. SIKES. Now, if we may have the rest of this briefing. I am sorry for the interruption.

Where are you in the briefing? How much time do you need to complete it? I want you to have the time required to do a credible job.

How much additional time do you need?

Can you give us specifics rather than the broad information that you have been giving, which is not as meaningful as more specific information of the type that I have been trying to elicit by questions?

ALTERNATIVES CONSIDERED IN CONCEPT STUDY

Colonel DOYLE. The planned briefing would take an additional 10 minutes. It does address specific locations.

[Slides 7 and 8 follow:]

SLIDES 7 AND 8

PRIMARY ALTERNATIVES CONSIDERED IN CONCEPT STUDY

Alternative	Fort Irwin	Aberdeen Proving Ground	Picatinny Arsenal	Rock Island Arsenal	Frankford Arsenal	Watervliet Arsenal
1 (status quo)		Ballistics research chemical systems.	Munitions propellants explosives fuzes.	Small arms weapons ,large caliber weapons.	Fire control, small arms ammunition, shell metal parts, fuzes.	Cannon and breeches, mortars, recoilless rifles.
2	Large caliber systems, small caliber systems, ballistics research.	Chemcial systems				
3		HQ large caliber systems, small caliber systems, ballistics research, chemical systems.				
4		Chemical systems	HQ large caliber systems, small caliber systems, ballistics research.			
5		HQ small caliber systems, ballistics research, chemical systems.	Large caliber systems			
5A		Ballistics research, chemical systems.	HQ large caliber systems, small caliber systems.			
5B		HQ large caliber systems, small caliber systems, ballistics research, chemical systems.	Large caliber munition subsystems, small caliber munition subsystems.			
6		Ballistics research, chemical systems.	Large caliber systems	HQ small caliber systems		
7		do	HQ large caliber systems		Small caliber systems (new FA).	
8		do	do		Small caliber systems (existing FA).	

Colonel DOYLE. The next two charts [Slides 7 and 8] display in summary form the alternatives to accomplish the previously mentioned mission which were given serious consideration in the Army study. The original feature of three systems laboratories and the ballistics research laboratory is common to all alternatives.

As you can see, or as we will point out from these charts, the alternatives considered range from maintaining the status quo, which is alternative 1, [Slide 7] which would be the most costly and least effective, to building an entirely new center from the ground up at Fort Irwin, Calif. This was alternative 2. In between are various combinations at existing sites rounding out the next three alternatives and the continuation which is shown on the next chart. [Slide 8].

Colonel DOYLE. This is a continuation of the preceding chart showing additional alternatives which were considered in the Army study.

Alternatives labeled 5, 5–A, and 5–B are other two-site alternatives which make use of existing facilities. Alternatives 6, 7, and 8, evaluated the possibility of placing the small caliber weapons system laboratory at either Rock Island or Philadelphia.

In alternative 7, the parenthetical note, "New Frankford Arsenal," refers to a 1974 proposal by the city of Philadelphia to make available a new site in Philadelphia for the construction of an entirely new facility for such a laboratory.

Next slide, please.

[Slide 9 follows:]

FINDINGS

Compelling need for major improvement in the armament acquisition process.

Consolidation and reorganization will help provide an opportunity for improvement; and will:

Achieve significant economies.

Long-term position is good . . . with any preferred alternative.

All alternatives have disadvantages.

All alternatives are significantly better than status quo.

With decision to implement—must recognize; risks and costs versus advantages; need to retain expertise; and need for support from top levels in management.

Colonel DOYLE. The principal findings of the Army study are shown here. The next chart will show the three preferred alternatives which are mentioned here. The need for improvement was felt to be compelling. It was recognized that realinement by itself would not solve all the problems but would make improvements possible.

[Slide 9.]

NEED FOR CONSOLIDATION

Mr. MURTHA. Could I stop you there? Consolidation and reorganization will help provide an opportunity "for improvement." That is a pretty weak statement. I mean, my goodness, to spend this kind of money just to try to help.

Colonel DOYLE. We feel the study concluded that a high degree of consolidation was needed, the pulling together of a critical mass; and more particularly the question that has arisen here is the systems orientation of the laboratory.

One man, one laboratory, responsible for the complete system. The historical problems, as Mr. Gale indicated, have been on the interface between the components. That is, a round becomes a sticker in the tube; the question is, should the propellant charge be increased, should the metal and the rotating bands of the projectile be changed, should the gun tube be changed? Where is the problem?

Right now the problem bats around by travel and telephone from Rock Island to Watervliet to Picatinny to Frankford Arsenal.

In a reorganized command where there is a large caliber weapon systems laboratory, the commander of the R. & D. command will turn to the director of the large caliber systems laboratory, who has his resources present with him, and say: You have a problem with that system.

Mr. MURTHA. Colonel, what would prevent you from doing that right now, just by telephone? You are not going to have it all in the same building. I do not see it.

Colonel DOYLE. Except the people who are faced with the problem, and this is not a problem to be solved in a day or two or by a phone call or two, are now in dispersed geographical locations working for different people. Each of them works for his own arsenal commander and the commanders in turn work for ARMCOM.

Mr. MURTHA. This is really a command problem rather than physical consolidation?

Colonel DOYLE. It is more than that, sir. It is the opinion of the laboratory directors and the people on AMARC and everyone we could draw together and consult within the system in the course of making our study. They concluded that the synergism between the developers of the different components occurs when they are in close contact with each other. When they are 100 miles apart, it does not happen.

History has seemed to bear out the negative conclusion that it does not happen as well as it should when they are working for varying intermediate layers and geographically located in different facilities.

RESULTS OF ARMY WEAPONS DEVELOPMENT PROGRAMS

Mr. MURTHA. But the results of these weapons have been pretty good, in my estimation. You have produced an awful lot of good weapons from the system as it is now.

Colonel DOYLE. The system has not been all bad. It is not all good.

For example, the tank gun currently on our tank was not developed in the United States. We did not develop a suitable tank gun for our own tank, we use the British model. The ammunition for that tank gun is British developed. We acquired it from them because they did better at it than we could.

It is this kind of thing that gives us concern.

Mr. MURTHA. I apologize for interrupting.

Mr. SIKES. That is quite all right.

All right, Colonel, go right ahead.

[Slide 9 shown again. (See page 28.)]

Colonel DOYLE. The principal findings of the Army study are shown here. I have mentioned some of them. Economies would be achieved, long-term prospects for continuing improvements would be better because of the consolidation.

While recognizing that no solution is perfect, the study found that the status quo was the poorest alternative because of its cost and demonstrated ineffectiveness.

PREFERRED ALTERNATIVES

[Slide 10 follows:]

SLIDE 10

PREFERRED ALTERNATIVES

	Alternative 3	Alternative 5	Alternative 5A
Headquarters	Aberdeen	Aberdeen	Picatinny.
Large caliber weapons system	do	Picatinny	Do.
Small caliber weapons system	do	Aberdeen	Do.
Ballistics research	do	do	Aberdeen.
Chemical system	do	do	Do.

Colonel DOYLE. This next chart shows the three preferred alternatives which are mentioned here. The need for improvement was felt to be compelling. It was recognized that realinement by itself would not solve all the problems but would make improvements possible.

[Slide 11 follows:]

SLIDE 11

SUMMARY DATA FOR PREFERRED ALTERNATIVES

Alternative	Achieving long-term Army objectives	Operational effectiveness	Personnel turbulence	One-time costs ($M)	Annual operating savings ($M)	Community impact (jobs lost)
3	Excellent	Superior	[1] 10,500	161	72	[1] 9,200
5	Good plus	Good	[1] 6,400	126	42	[1] 3,700
5A	Good	Good	[1] 6,100	86	42	[1] 4,000

[1] Approximate.

Colonel DOYLE. These then were the three preferred alternatives studied more intensively by the Army. (Slide 11)

Alternative 3 would have placed the entire command at Aberdeen Proving Ground, which includes the Edgewood Arsenal.

Alternative 5 would have separated the large caliber weapons system lab and moved its location to Picatinny.

Alternative 5A would place the bulk of the command at Picatinny, where the largest segment of the R. & D. population is now, by locating the headquarters and both weapon systems labs at that site and leaving the ballistics research and the chemical functions at their present location.

FACTORS INCLUDED IN REVIEW

Next slide, please.

[Slide 12 follows:]

FACTORS INCLUDED IN REVIEW OF ALTERNATIVES

Achieving long-term Army objectives.
Degree of operational effectiveness.
Personnel turbulence.
One-time costs.
Annual operating savings.
Community and environmental impacts.
Consideration of congressional comments.

Colonel DOYLE. In the final decision process, consideration was given to these factors (Slide 12). The long-term objective of improving the acquisition process and the effectiveness of operations were considered in the light of turbulence to program and personnel; costs and savings resulting from the action; and the impact on the local communities.

Comments from congressional delegations were carefully reviewed and made a part of the development of the alternatives.

In highly summarized form, this is the evaluation the Army placed on the preferred alternatives prior to the receipt of congressional comments. As slated earlier, none was without its disadvantages. In Alternative 3, the operational effectiveness and higher savings after reaching steady state were offset by greater personnel turbulence, community impact and high one-time costs in reaching steady state. The advantages and disadvantages of alternative 5 and 5A were closely balanced except in the one-time cost area where alternative 5 cost almost 50 percent—$40 million—more to achieve the same savings as in 5A.

REVISED ALTERNATIVES

[Slide 13 follows:]

SLIDE 13

REVISED ALTERNATIVES—AMENDED AFTER RECEIPTS OF PUBLIC AND CONGRESSIONAL COMMENT

Alternative	Picatinny	Aberdeen Proving Ground	Watervliet
3		HQ, large caliber systems, small caliber systems, ballistics research, chemical systems.	
D	Munitions development (LCS).	HQ, ballisti csresearch, chemical systems, small caliber systems, large caliber systems (less munitions development).	Benet Lab (LCS).
5M	Large caliber systems	HQ, ballistics research, chemical systems, small caliber systems.	Do.
5A(M)	HQ, large caliber systems, small caliber systems.	Ballistics research, chemical systems.	Do.
9(M)	Large caliber systems (less weapons development.)	HQ, ballistics research, chemical systems, small caliber systems.	Weapons development (LCS)

Mr. SIKES. You are recommending 5–A?

Colonel DOYLE. As modified, sir, and I will discuss the modifications.

Mr. SIKES. All right.

Colonel DOYLE. Following the receipt of congressional comments, new alternatives, Delta D and 9 were developed and earlier ones were modified. (Slide 13).

For example, engineering spaces were added to support production at Rock Island in order to compensate for the movement of the Rodman Lab engineers to Picatinny or Aberdeen. New alternative D would have split the large caliber weapon systems lab by building on the munitions base already at Picatinny and the tube and breech mechanism base at Watervliet. Other alternatives were modified to consider

leaving Benet laboratory in place as is or with the addition of some functions from Rodman Lab as part of the large caliber weapon systems laboratory.

RECOMMENDED ALTERNATIVE

The modified version of alternative 5–A now, known as modified alternative 5–AM was finally chosen as the best all-around course of action. The reason will be given on the next chart. (Slide 14)

[Slide 14 follows:]

WHY ALTERNATIVE 5–AM?

Meets Army objectives.
High return on investment.
Modest personnel turbulence.
Least one-time costs.
Excellent consolidation of technology base.
Flexibility of work force.
Best opportunity for improving acquisition process.

Mr. SIKES. Your recommendation to us, the statement, the justification which you have presented, are based on this recommendation, is that correct?

Colonel DOYLE. That is correct, alternative 5–AM.

Mr. SIKES. All right. Do you wish to discuss this?

Colonel DOYLE. Yes, sir. The alternative meets all the established Army objectives as far as bringing together a critical mass, providing the systems orientation, and putting us in position for long-term improvement in the development process.

There is a high return on investment, as General Wray mentioned. After reaching a steady state, some $37 million per year can be saved as compared with the status quo.

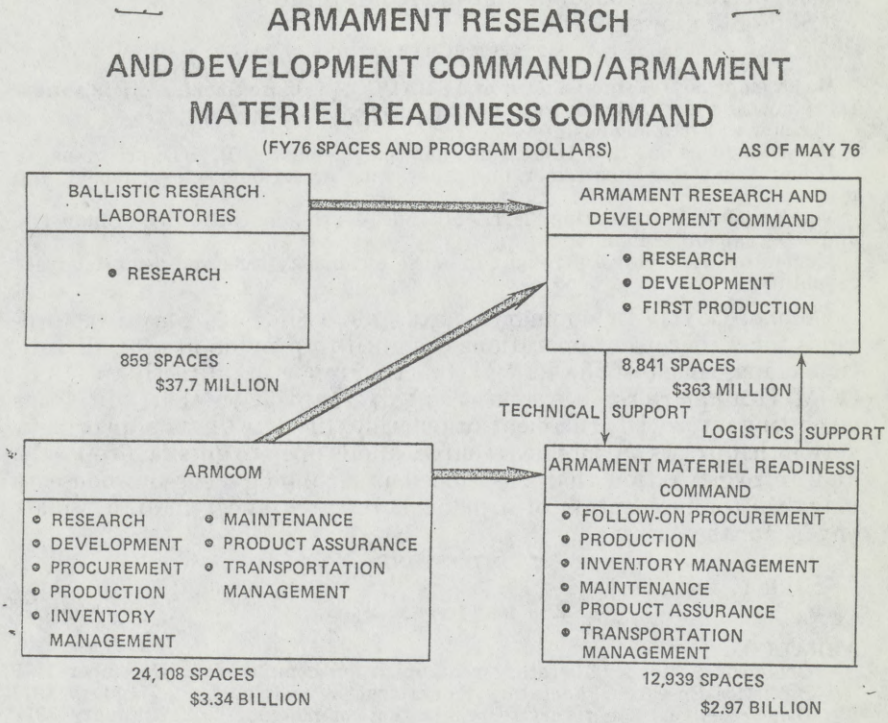
Personnel turbulence, while not light, is modest in comparison with the other alternatives considered. It had the lowest one-time cost of any alternative. It provided an excellent consolidation of the technology base because, with the two weapon systems laboratories together, even though the entire development community was not together, the fuze people, large and small caliber would be together, the propellant people, large and small caliber, would all be together; there is greater flexibility in the work force providing for accommodation to shifting workloads which occur over time, so that work and personnel could be shifted from large to small caliber and overall provided the best opportunity for improving the acquisition process.

Mr. SIKES. Does this complete your presentation?

Colonel DOYLE. Not quite, sir.

Mr. SIKES. Go ahead.

Colonel DOYLE. I have several more slides.
[Slide 15 follows:]



SLIDE 15

Colonel DOYLE. Implementing this alternative would consolidate the R. & D. functions into an R. & D. command. However, the logistics and readinesss function would be consolidated into another command at Rock Island.

This chart [Slide 15] provides an overview of the commands, giving some indication of the scope of personnel and dollars involved.

The ballistics research laboratory shown there is now a separate organization reporting directly to ARMCOM Headquarters, not part of it. But it will become an integral part of the Armament R. & D. Command which will be responsible for research, development, and the first production runs of newly developed armament items. The new Armament Materiel Readiness Command will handle the materiel for the remainder of its life cycle, from follow-on procurement through final disposition.

The statistics shown here are significant for two reasons. First, they show that the research, development, and engineering functions require about 40 percent of the personnel but use only about 10 percent of the dollars. As previously stated, it is the urgent need for day-to-day decisions and the high dollar value of follow-on procurement that have understandably absorbed most of the management attention in the past. This has operated to the disadvantage of research, development, and

engineering. The second aspect to be noted is that the roughly 25,000 manpower spaces in the current community can be reduced to about 22,000 spaces after consolidation and reorganization.

[Slide 16 follows:]

CONCEPT OF OPERATIONS

Major emphasis—Establishment of ARRADCOM is more than a reorganization. It is a new and more efficient way of doing business.

The new way of doing business—

Full-time focus on: R. & D. mission; and management of R. & D. programs.

Orientation toward: customer, output, systems, evolutionary development, and market.

Ventilation by: eliminating "NIH" attitude, developing capability in industry, and using capability in universities.

Momentum and control through: in-house technology base and "smart buyer" capability.

Colonel DOYLE. In summary—next slide, [Slide 16] please—it provides for a concept of operations designed to provide first of all full-time management of the R. & D. function reporting directly to DARCOM Headquarters, a system-oriented organization that will focus on getting improved armament systems into the user's hands, an organization that draws on outside resources and is open to outside proposals, and an organization that has sufficient technology base in-house to maintain the momentum of armament research and remain a "smart buyer" for the Army.

MILESTONES

[Slide 17 follows:]

Key long-term milestones

	As of May 1976
ARRADCOM:	
Chemical Systems Laboratory reorganization completed	December 1976
Ballistics Research Laboratory reorganization completed	January 1977
Benet Weapons Laboratory reorganization completed	January 1977
Frankford Arsenal closed	September 1977
Rodman Laboratory closed	September 1978
Large Caliber Weapon Systems Laboratory staffing completed	October 1979
Small Caliber Weapon Systems Laboratory staffing completed	October 1979
Facilities and equipment program completed	July 1980
ARRCOM:	
ARRCOM Headquarters organization and staffing completed	September 1978
ARRCOM facilities program completed	March 1980

Colonel DOYLE. There are several key milestones on the next chart [Slide 17] indicating the rate at which the reorganization is scheduled to progress.

The first three inplace reorganizations would be completed in about the next 6 months. Frankford Arsenal is scheduled to close in September of 1977. Rodman Laboratories at Rock Island would close 1 year later, and all the transferred and recruited personnel are scheduled to be in place by October of 1979.

The last facilities work would be completed by July 1980.

EFFECT OF DELAY IN CONSTRUCTION

[Slide 18 follows:]

EFFECT OF DELAY IN OBTAINING MCA REPROGRAMING

Implementation of realinement action will continue—including planned closure of Frankford Arsenal.

Dollar savings will be lost due to inefficiencies.
Army's mission capability will be impaired.
Disruptions of programs may adversely affect future readiness.
Personnel involved in transfer of functions will be considerably inconvenienced.
Uncertainty of transfer dates will cause family hardships.

Colonel DOYLE. Finally, if I may have the last slide—slide 18.

Comprehensive evaluation and planning effort that has gone into this realinement action could be adversely affected if the MCA reprograming action were delayed. The mission, the budget, and many of the employees would suffer, even though implementation of the announced decision would continue. The efficiencies that make savings possible are dependent on timely provision of suitable facilities; a particular year's savings cannot be recouped after the money has been spent. Having to continue to function with already identified inefficient or ineffective operations degrades accomplishment of the R. & D. mission now and the readiness mission in the future. Finally, providing transferred employees with marginal, temporary facilities or, alternatively, keeping them in a state of uncertainty regarding their transfer dates would cause both professional and family hardships.

Mr. Chairman, this concludes my background briefing.

Mr. SIKES. Thank you, Colonel Doyle. General Wray, there is a proviso in the authorization bill for military construction for fiscal 1977 which in effect provides about 1 year's delay in any consolidation or transfers. The President vetoed the bill because of the presence of that language.

The Congress will have to vote on whether to sustain the President's veto and presumably to eliminate that language in the new bill, or to override the veto and put the language into effect.

What would be the effect, if any, on this reprograming proposal, the implementation of this reprograming proposal, if the language stays in the bill?

General WRAY. Sir, I believe the language of the bill does not affect this particular action.

For example, the closure of Frankford was announced in 1974. The organization of this Armament Research and Development Command was announced in December of 1975.

The initial announcements of the studies being made were almost 1 year before that. I believe the bill as presently written does not affect that.

Mr. SIKES. Do you have anything else, General Wray, to present at this time or are you ready for questions?

General WRAY. No, sir, I have nothing further on this particular project.

Mr. SIKES. The committee has a number of questions to be asked. I will get on those in a little while. But we do have some distinguished members of the House here who have a very direct interest in this matter. I want to give them an opportunity to be heard.

Prior to that, I want to ask members of my subcommittee if they have any questions, general questions they wish to ask at this time.

Mr. Patten?

Mr. PATTEN. Not at this time.

Mr. SIKES. Mr. McEwen?

Mr. MCEWEN. Mr. Chairman, I will defer my questions.

Mr. SIKES. Mr. Murtha?

Mr. MURTHA. The same applies to me, Mr. Chairman.

STATEMENT OF HON. JOSHUA EILBERG

Mr. SIKES. We are privileged to have with us at this time our distinguished colleague and friend from Pennsylvania, Mr. Eilberg. I want to welcome you, Mr. Congressman, and to ask if you have a statement that you would like to make at this time?

Mr. EILBERG. Mr. Chairman; I do.

I am wondering first if I may yield to my dear friend and colleague from Pennsylvania, Mr. Green, who is also present.

Do you wish to address the subcommittee at this time?

Mr. GREEN. Please proceed, that is fine.

Mr. EILBERG. If it is in order, recognizing the probability of rollcalls and so forth, and interruptions for questions and what not, I wonder if I could place the statement in the record.

Mr. SIKES. Be very glad to have you proceed in your own way. If you wish to brief it or to provide additional material, of course we would be glad for you to do so, as you see fit.

Mr. EILBERG. Thank you, sir. Also, I would like to call to my side my special assistant, Edward P. Carroll, who has spent 34 years of his life employed at the Frankford Arsenal, who is intimately familiar with its work there, the conditions and so forth, and who is intimately familiar with Picatinny and many of the other institutions which your committee has been serving. I would like the opportunity to have him here and perhaps answer some of the questions that might be asked.

Mr. SIKES. Very good.

Mr. EILBERG. Mr. Chairman, I share with you and your committee the desire to make sure that the military spends its appropriations in the most economical and beneficial manner. It has been your stated policy that the military should use existing facilities where possible instead of building new installations at great expense to the taxpayer.

FRANKFORD ARSENAL

In the case of the Frankford Arsenal, the Army is doing exactly the opposite and in an attempt to keep this decision secret it is trying to get the necessary funds without justifying its action to the Congress and the people.

For this reason, I would like to discuss with you the salient aspects of the Army's project request No. T28600 entitled "Armaments Development Facilities Increment No. 1" at Picatinny Arsenal, in Dover, N.J. This is the basis for the request to the appropriations committee for approval of reprograming authority for $7,363,000 of unexpended prior year funds.

The Army needs this money to convert a collection of old warehouses—and I emphasize "old warehouses"—at Picatinny by September 1977 into a replacement for the modern functioning facilities now located at the Frankford Arsenal.

Frankford Arsenal was established in Philadelphia, Pa., in 1816 as an ordnance supply depot. Subsequent construction expanded the arsenal from 6 buildings on a 20-acre tract in 1832 to its current 234 buildings covering 110 acres. The arsenal's role as a commodity center expanded to its peak in World War II when it was responsible for

research, development and production of small arms ammunition, mechanical time fuzes, fire control instruments, and artillery ammunition shell and cartridge cases. The personnel complement at the height of World War II was 22,000.

Since World War II, in-house production has been reduced. Emphasis has been placed on research, development, engineering, and national procurement.

Frankford Arsenal, a development and readiness command (DARCOM) and a subordinate installation of the U.S. Army Armament Command (ARMCOM) is the Army Commodity Center for small caliber ammunition, and fire control equipment systems. It provides development and engineering support to the Army in artillery metal parts, mechanical time fuzes and timers, and tracers for all munitions. The authorized civilian strength as of June 30, 1974, was projected at 3,667 people. The projected strength for this coming Christmas is 1,688 people.

For reasons it has been unable or unwilling to make public, the Army has predestined the closure of the Frankford Arsenal thereby abandoning its excellent facilities and a skilled work force of more than 3,000 employees.

Typical of the Army's thinking about the arsenal is stated on page 7 of the project request, "The Scheduled Closure of the Frankford Arsenal Renders the Facilities There Unusable."

In other words, the arsenal cannot be used because it is going to be closed. It is this type reasoning which brings me here today.

FUNDING METHODS SEEM IMPROPER

While I am obviously opposed to the complete abandonment of the Frankford Arsenal I am also very much concerned by the Army's decision to deny the Congress a thorough and comprehensive review of its actions by attempting to get the necessary funds through reprograming. One can only wonder why the Army has never tried to get the money it needs through the normal authorization and appropriations process.

One reason may be the enormous cost of the project. This request for reprograming is only the tip of the iceberg—the first small increment of a much larger total requirement. This is borne out by a statement by Maj. Gen. Bennett L. Lewis, commander of the Army Armament Command, in a May 12, 1976, letter to the New York District of the Corps of Engineers:

"Since Picatinny lacks sufficient and suitable facilities, immediate construction became neessary. The only way this ould have been done was to obtain and use the Seretary's reprograming authority for fiscal year 1976 with design being done while construction approval was being sought. The necessary authorities were granted and the help of HQ, DA, and your organization given. This didn't solve all of our problems since the total amount in fiscal year 1976 was only $7.5 million. Our total construction program requires about $37 million at Picatinny, $8 million at Rock Island Arsenal, and an additional $9 million contemplated for Picatinny. This led us to orienting the first construction increment to absolutely essential requirements associated with the Frankford closure; this is the $7.4 million package you have. To the

extent legally possible, we also planned to use our procurement and R.D.T. & E. funds for equipment movement, site preparation, installation, and associated design."

The Army's requirement to complete the total project requires many more millions of dollars, perhaps in excess of $50 million. Will these, I ask, additional requirements also be requested in the form of reprograming authority for prior year unexpended funds?

Because of the nature of this request, and past actions by the Army, I think it also important to carefully review previous reprograming decisions as well as current and future requests for funds. According to reports in the media, the Army has stated it has other sources of money for this project and I would hope this committee will also disapprove other transfers of funds which would effect Frankford Arsenal. We should be sure the budget is not being padded with other projects to provide funds for projects the Army does not care to discuss publicly.

For instance, in one case $1.5 million was peeled off by the Army from allegedly vital projects to help close Frankford Arsenal by paying for the removal of equipment. Gen. William E. Eicher, deputy commander of the Armament Command, stated, "Manufacturing Technology for weapons continues to show impressive benefits for funds invested, but deep budget cuts and the unexpected levy of $1.5 million to clear Frankford Arsenal have dropped important technology projects off the list."

Were they truly realistic needs when presented and defended or was the Army practicing a musical chairs banking game with the Congress?

Recently, facts were brought to my attention which appear to confirm this policy by the Army.

The Army violated the Antideficiency Act when it spent $165 million at the Electronics Command and $45 million at ARMCOM which it did not have, during fiscal years 1971 through 1975.

This violation resulted in suspended payments to 900 contractors because the Army Materiel Command overspent procurement appropriations passed by Congress and by law. The Army cannot make any further payments out of the overobligated appropriations account without congressional approval. A Pentagon statement said an internal audit had uncovered "pricing errors, accounting errors, failure to properly record orders, loss of records, use of unacceptable accounting practices, and inadequate document control."

The accounting problems and overspending are concentrated largely in the Army's Electronics Command situated at Fort Monmouth in which a little over 2 years ago the command's Finance and Accounting Office was shifted from Philadelphia to Fort Monmouth with only about 10 of the 200 employees moving. The larger errors, approaching $50 million were traced to the U.S. Army Armament Command where faulty transactions were processed in May 1974 in less than a year after the merger of Munitions and Weapons Command to form ARMCOM (July 1973).

I wonder if we are again involved in a violation of the Antideficiency Act? Specifically, I have been informed that various appropriations designed to support research, development, procurement, and the Army Stock Fund projects are being assessed to offset the costs to implement the AMARC and Concise proposals.

The Army has been aware of the recommendations of its own Project Concise, a base realinement study, since 1973 and the case study justification folder for the Army Materiel Acquisition Review Committee (AMARC) was prepared over a year ago. In other words, the decision to close Frankford was made years ago without opportunity from the Philadelphia delegation to have an input.

The decision to close and/or relocate certain functions of an installation recognizes the need for closure costs, but while transfers and closures are underway the Army has failed to provide the proper financing of these costs. At an installation such as Frankford Arsenal, this has caused considerable burden on the cash balance of the Army Industrial Fund (AIF) account. It appears unfunded accounts have been established to accumulate costs associated with the closure action; however, since there has been only limited and questionable reimbursement of these costs from higher authority, there may in the near future be a cash shortage created in the AIF account.

At recent court hearings in Philadelphia, Col. Charles Nichols from the Armament Command stated:

> We have already expended funds on the reorganization of the command and the closure of Franford. Within the ARMCOM headquarters and at Frankford Arsenal alone, $2,265 million has been expended through April 1976 on the transfer of people, function, and equipment to Rock Island. An additional $727,000 of costs are estimated through the end of June 1976. By May 28 we expect to have obligated $100,000 as the first increment of $840,000 of architect-engineer contracts for the design of facilities and equipment installations projects.

With regard to over $3 million which were expended by June 30, 1976, my question is where and how the funds were reprogramed?

Where did Army obtain reprograming authority for the $840,000 associated with architect-engineer contracts? Again, is this a violation of the Anti-Deficiency Act?

The architectural and engineering contract has already been awarded and partially funded in the amount of $100,000 to prepare the architectural drawings for this entire Picatinny project. This was done without congressional approval and unless this committee approves the reprograming request under consideration it will not be a legal expenditure.

This architect-engineer contract, I am told, is the first phase of a study being conducted by the New York Corps of Engineers for the Headquarters and Weapons Development Center, Picatinny Arsenal, at an estimated cost of over $33 million, that being the first phase of the total cost of about $54 million for relocation at Picatinny, Ill.

Mr. Chairman, I would like to review with you and the committee some specific details regarding this request for reprograming authority and what the Government will obtain for this large expenditure.

LOCATION AND FACILITIES

According to the Army's project request T28600, dated January 1976, almost all of this $7,363,000 is required to rehabilitate and construct facilities at Picatinny Arsenal to house missions and activities to be transferred a mere 80 miles from Frankford Arsenal in Philadelphia, Pa.

Who can doubt that Philadelphia is centrally located as it is compared with Picatinny, which is remote in terms of availability immedi-

ately to air travel, to other arsenals and other locations throughout the country?

Again Colonel Nichols testified that 84 percent of 350,000 square feet of new construction at Picatinny Arsenal will be used to house Frankford Arsenal's functions and equipment and 73 percent of the 11,000 major items which are to be moved from Frankford to Picatinny.

A detailed review of this project request indicates that the buildings and facilities now utilized at Frankford Arsenal to perform these functions and house technical, scientific, and artisan/craftsmen personnel are far superior to those which will be at Pictainny after this large unnecessary expenditure of public funds. Additionally, the present, available, superior facilities now being utilized at Frankford Arsenal can absorb large numbers of additional personnel without expending one additional cent.

I would like to cite some specific examples.

At this point, Mr. Chairman, I think it would be useful to have Mr. Carroll come up and show some photographs of what our buildings look like at the Arsenal, describe briefly what is in them, and also what the facilities at Picatinny look like.

I think these pictures will speak for themselves, plus the very brief description by Mr. Carroll.

Mr. SIKES. Very well.

Mr. CARROLL. In the basic project request, the statement is made there are $721,000 of this $7.3 million required, and I quote from the project request, "to provide an optical prototype facility located in 23,140 square feet of building 91."

I think this is the significant point: Building 91 is a one-story concrete and hollow tile structure totaling 60,000 square feet, and was originally built as a general purpose warehouse. There is a deviation request in process to allow Picatinny now——

Mr. SIKES. Can I interrupt you off the record?

[Discussion off the record.]

Mr. SIKES. Proceed.

Mr. CARROLL. The deviation request would allow an additional 23,000 square feet to be used for this optical prototype capability.

I think the position of the Philadelphia delegation in their proposal has been that there presently exists at Frankford Arsenal the finest and the only optical capability that currently exists in the Department of Defense. They have a complete capability for manufacture of optics from raw glass to the completed project.

They are currently housed at a building that was constructed in 1942; completely modernized, it is up to date, has humidity control, temperature controls for the manufacture and assembly of the optical components.

I would just like to present as part of the testimony building 91—and I have to apologize for this picture—but this is building 91. It is currently proposed to expend in excess of three-quarters of a million dollars to rehabilitate and modify it to give some optical capability. This is the current optical facility that is being abandoned at Frankford Arsenal. It is completely air-conditioned, humidity-controlled, and when we talk in terms of our proposal, the Philadelphia Delegation proposal, we are looking at a modification, not using the total facility of Frankford Arsenal.

PHILADELPHIA DELEGATION PROPOSAL

The 110 acres would be reduced to approximately 20 acres. Army has never given us an objective evaluation of that proposal.

Mr. PATTEN. You did not deliberately take this picture out of focus?

Mr. CARROLL. No; we apologize for the shake.

We talk in terms of fire control, development engineering mission, which now will be housed in building 18 at Picatinny. Building 18 again is a warehouse space and a request for deviation approval has been submitted. It is a hollow building with an iron corrugated roof, there is no air-conditioning. There are not adequate power facilities at the present time.

Again I would like to submit a picture of building 18. This is building 18; it will house the current fire control engineering design facility. This is the current facility at Frankford Arsenal.

We are saying it can be done there at no military construction cost.

Now, in our proposal we spoke of the small caliber weapons laboratory being assigned to Frankford Arsenal. We have also proposed it would be at a saving of some $40 million in military construction.

The proposal, when it was submitted to the Army—and we realize we submitted a good proposal—but we had not one question from the Army in terms of the validity of the proposal, not a question as to how we intended to operate; but we had the proposal rejected.

Again these are the facilities we are talking about using under that concept. These are buildings from 1942, currently air-conditioned, complete capability, the best electrical system I would say in the total arsenal complex, and we have been completely denied in that particular request.

That basically just touches on a few of the examples.

BALLISTICS TEST RANGE

Mr. EILBERG. While Mr. Carroll is here, Mr. Chairman, I will be speaking briefly about the ballistics testing range at Frankford Arsenal.

I would ask Mr. Carroll to demonstrate his photographs of the ballistic testing range at Frankford Arsenal.

Mr. SIKES. Very well.

Mr. CARROLL. One of the prime concerns in the reorganization was the capability for testing of small arms ammunition. I would say there have been four or five different proposals, with the Army now saying, "We need nothing."

Originally one of the concepts was they were going to isolate the ballistic test range at Frankford and use it, even though the balance of the facility was to be closed. There were project requests being faced that would have created a new ballistic range at another facility. This would again have totaled at least $35 million to duplicate.

Our proposal had requested that we would still retain the capability of this range. Its replacement cost today is approximately $35 million. It is in existence. It has the capability and certification for NATO-testing, for which no other capability exists in the entire Defense Department. And if we lose it at Frankford, it will probably be transferred to some other country for NATO testing and certification.

Mr. PATTEN. Do you do it for other countries or do you do it just for the United States?

Mr. CARROLL. No; at Frankford they are certified to test for all the NATO countries.

Mr. EILBERG. Mr. Chairman, if I may proceed.

Mr. SIKES. Of course, Mr. Eilberg.

OTHER FACILITIES

Mr. EILBERG. Presently at Frankford Arsenal there exists one of the finest, if not the finest, optical instrument facility in the free world and it is manned by competent artisans and craftsmen. This building contains 61,000 square feet and was constructed expressly as an optical facility in 1942. It has been modernized and is up-to-date in all aspects. It is air-conditioned and has the requisite climatic and environmental controls required in optical fabrication. This facility since its construction in 1942 has been in constant demand in supplying emergency, limited production requirements in the optical instrument field and in the present tank buildup program it has been extremely active in response to Presidential order.

The Army's project request under consideration states that $721,000 will be expended to replace this facility and I quote the stated description of the replacement from the Army's project request,

An optic prototype facility will be located in 23,140 square feet in building 91. Building 91 is a one-story concrete and hollow-tile structure, total area 60,105 square feet and constructed in 1942 as a general purpose warehouse. It was modified in 1966 as a general storehouse and office facility. A request for diversion of an additional area of approximately 20,000 square feet is being submitted for approval. This facility will house the prototype optical fabrication mission engaged in the design, development prototyping, testing and evaluation of unique components and systems and their application to aircraft, air defense, artillery, infantry, armored vehicles and small arms fire control systems. It will also serve as an assembly area for fire control devices.

This hardly appears to be a wise investment of over $720,000 to create approximately one-third of an outstanding facility which is to be abandoned in this action, especially a warehouse that requires: partitions, suspended ceilings, floor covering, insulation, illumination, heating, process air-conditioning, and increased power and steam generating capability.

The fire control and development engineering mission is now housed principally in two fully air-conditioned buildings at Frankford Arsenal with a combined capacity of 90,000 square feet. These excellent brick buildings were constructed in 1941. The project request under consideration will expend $874,000 to provide space for these activities as follows, and I quote the Army's project request.

The fire control lab will occupy 25,000 square feet of building 94, all of building 18—3,150 square feet—and two new additions—optics laboratory—9,750 square feet area, and dark tunnel 2,600 square feet. Building 95 is a steel and brick/concrete structure completed in 1961 as a special weapons pilot plant. Its present use is as a special weapons and general administration facility. Building 18 is a hollow tile walled and corrugated asbestos roofed warehouse constructed in 1918 and presently used as a warehouse.

A request for diversion of building 18 from warehouse space is being submitted for approval. This facility will conduct activities in the design, development, prototyping, testing and evaluation of unique components and systems in the fields of optics, radiometry, electro and photo optics, electronics, radar and

microwave, and laser countermeasure technology as applied to aircraft, air defense, artillery, infantry, armored vehicles and small arms fire control systems. Included in this facility configuration are 1,000 square feet assigned to quality assurance inspection function.

It does not seem to be a prudent investment to add almost 13,000 square feet to a 1918 warehouse and include ceilings, floor coverings, partitions, air-conditioning, heating, power, and illumination.

The present technical data facility at Frankford Arsenal is, in all probability, the outstanding installation in all of DARCOM's (formerly AMC) agencies. Certainly it exceeds any other facility in the involved ARCOM arsenals and can be easily expanded. The project request under consideration states that $1,658,000 will be expended to house this activity at the ADC. I quote the project request:

The technical data facility will occupy 30,000 square feet of new construction immediately adjacent to buildings 5 and 58. Building 5 (4,500 square feet) and a portion of building 58 (6,500 square feet) presently utilized for the Picatinny Arsenal technical data functions will be integrated with the ADC technical data facility. This facility will perform a full range of services in the area of technical data management including the direction, implementation, and control of the centralized automated technical and configuration management data control systems. The operation of a central technical data system will interface with the technical data banks, all data sources, and other installations will manage and control the central microdata repository of technical data acquisition acceptance, processing, storage, retrieval, reproduction, and distribution including the class A microfilm project.

This entire cost could be avoided by using Frankford Arsenal's excellent facilities. It should be noted that the requirement for a technical data repository was completely overlooked by the Army in all the planning of concise, AMARC, and the armament command realinement.

Mr. Chairman, Mr. Carroll has been talking about the ballistic testing range and we believe it is the most modern ballistic testing range for small arms ammunition weapons in the United States.

I am advised by technical experts this is an essential facility to the proper conduct of research and development in this area. It is alleged that some uninformed individual or individuals in the Army superstructure planning this action indicated to the Congress in some fashion that no range facility was required. Therefore, nowhere in present plans are there any funds to provide this existing capability that is essential, close at hand to available research and development activity. Additionally, this facility is presently the North American NATO test center for small caliber ammunition. It is estimated that it would take between $30 million and $35 million to duplicate this installation. Present plans call for abandoning this facility and splintering its functions.

I wonder if the Army will be back within 5 years from now with a $40 million request to replace and duplicate this facility?

PHILADELPHIA DELEGATION PROPOSAL

For all of these and other reasons, on February 9, 1976, Representative Melvin Price, chairman of the House Armed Forces Committee, presented an alternative proposal to the Secretary of the Army for consideration. This proposal was prepared under the direction of the Philadelphia congressional delegation. It provides an alternative

which is more cost effective and, even more important to the national defense posture, would retain a large segment of extremely critical technical and scientific skills for the Army and the Nation, and would eliminate or, at least, drastically reduce MCA fund requirements.

By way of background, it was an initial objective of the Army to establish at one site the total capability of performance for guns and bullets. However, detailed study indicated that both economically and operationally this could not be achieved. As presently conceived and approved by the Army, there will be three separate geographic locations in the ADC: (1) Watervliet Arsenal, (2) Picatinny Arsenal, and (3) APG/Edgewood Arsenal.

The Philadelphia delegation's proposal simply provides greater savings and retains critical skills by placing the small caliber weapons systems laboratory and its supportive functions, as part of the ADC, in some of the excellent buildings on the Frankford Arsenal site and retaining a limited optical production capability which parallels the gun barrel capability at Watervliet Arsenal.

This proposal would locate this laboratory geographically in the center of other ADC facilities.

All that was requested from the Secretary of the Army was a complete objective analysis without the bias of previous deliberations. The Secretary assured Chairman Price, Senators Scott and Schweiker, the Philadelphia congressional delegation and the Pennsylvania congressional delegation on various occasions that such an objective and unbiased analysis would be made.

I might say, Mr. Chairman, that with 3,900 employees now there, approximately, under this revised plan which we have developed, we feel we could go down to 1,500 and conserve the small caliber operation and the open fire control optical laboratory. And we could have a real good operation there, consistent with the Army's long-range goals.

On June 7, 1976, 4 months after submission of the plan to the Secretary of the Army, in spite of the assurance given, the Army response was somewhat less than objective and in the main was an irrelevant rehash of previous deliberations.

For instance, 32 pages of the 51-page Army analysis was a reply to, and an analysis of, a proposal presented by the city of Philadelphia in 1974, which provided a Philadelphia site for location of the entire ADC. This proposal's relevancy to the delegation's present proposal is not apparent. Certainly it is not unbiased and objective.

All proponents have urged the Secretary of the Army to visit Frankford Arsenal and receive firsthand a briefing on the significant details of the proposal. This invitation has not been accepted, and we tried repeatedly to have it accepted, and no further details were solicited from any source by an Army representative. This resulted in considerable misinterpretation, distortion and omission in the Army's analysis.

During the 4-month interval the Army has proceeded on an accelerated timetable, as if to spite us, to continue implementation as originally announced, and have already issued canvass letters to every employee of Frankford Arsenal. In some cases work has been advanced over 1 year from the original schedule to hasten the closure of the Frankford Arsenal because of the heat breathing down on the Army's neck.

If analyzed objectively without bias, notwithstanding the Army's comments to the contrary, it will:

(1) Reveal greatly reduced one-time costs both in MCA moneys and transfer of personnel related costs.

(2) Reduce the annual operating costs below those now planned for the ADC.

(3) Substantially increase retention of vital and critical technical skills and capabilities in fire control, small caliber ammunition and weapons, as well as the highly critical limited production of optical instruments.

(4) Strengthen our military capability.

(5) Drastically reduce the impact on the human environment inherent in present plans.

(6) Retain the operational concepts and organization of the ADC.

The highly specialized skills and technologies involved in fire control and small caliber ammo/weapons will provide only minimal interchange by collocation with the other disciplines of the ADC. The tank and Aircraft Weapon Development Centers use the majority of the efforts of the Small Caliber Weapons Systems Laboratory and they are located in Detroit, Mich., and St. Louis, Mo., respectively. Both of these areas are considerably more accessible from Philadelphia than from Picatinny Arsenal.

Mr. Chairman, I would like to invite you or anyone you may wish to designate to join me in an onsite visit of the existing facilities at both Frankford and Picatinny Arsenals.

I believe this would be extremely beneficial and we will, if desired, present an indepth review of our proposal.

I believe that you will find that the Army's plan is unwise, uneconomical, unnecessary and that its proposal for funding this operation is nothing more than an attempt to avoid having to justify it, by going through the authorization-appropriation process.

Thank you, Mr. Chairman.

Mr. SIKES. Thank you, Mr. Eilberg; you have made a very good statement, a very interesting statement. It is obvious you have spent a great deal of time developing the material that you have given the committee.

I do think that your suggestion that members of the committee and staff visit Frankford Arsenal, as well as visit other proposed areas affected by this reprograming action, is a very good one.

Thank you very much for being with us.

STATEMENT OF HON. HELEN S. MEYNER

Mr. SIKES. The committee is very pleased to have our distinguished colleague, Hon. Helen S. Meyner from New Jersey, who also has a very great interest in this matter.

We will be pleased indeed, to hear you at this time.

Mrs. MEYNER. Thank you, Mr. Chairman and my colleagues.

I am here today as my friends from the Army, General Wray and his associates, are here to do, to testify in favor of the Department of Army's request for approval to reprogram $7,363,000 within the military construction Army appropriation under authority of section 102, P.L. 93-107.

It is urgent that this approval be granted to provide minimum facil-

ities necessary to establish the Armament Research and Development Command, ARRADCOM, at Picatinny Arsenal in Dover, N.J.

The scheduled closure of Frankford Arsenal in Philadelphia on September 1, 1977, and the resulting transfer of certain missions from that installation to Picatinny, intensifies the urgency of approval of this request.

The establishment of ARRADCOM will result by way of consolidation in streamlining armament development activities for all weapon systems and ammunition critical to national defense.

The annual savings over the costs of the present dispersed operations are estimated at $37 million. The $7,363,000 requested will provide for the first step in construction of the ARRADCOM facilities and will accommodate the facilities now at Frankford Arsenal that are scheduled to be transferred to Picatinny.

The balance of construction is estimated to cost $33 million in the future.

Adverse effects on armament development missions and therefore on national security could well occur if this initial construction were deferred pending the next annual military construction authorization and appropriation for fiscal year 1978.

It is of vital importance that the Army's decision be effected promptly and efficiently. Each day that passes will result in undue cost to the Army and to the American taxpayer.

On April 30, 1975, as a result of an opportunity for congressional input afforded by then Secretary of the Army Howard Callaway, the New Jersey congressional delegation submitted a report in support of alternative plan 5A, which you saw outlined earlier this morning.

As detailed in the Army's comprehensive, in-depth study, known as the Lewis study, this alternative provided for the establishment of a two-site center with small and large caliber weapon systems and headquarters at Picatinny Arsenal, and ballistics research and chemical systems at Aberdeen Proving Ground in Maryland.

Permit me to review briefly for the subcommittee some of the salient points in the New Jersey delegation report to the Army.

REPORT OF NEW JERSEY CONGRESSIONAL DELEGATION

Mr. Chairman, I respectfully request permission to insert the report in the record at this point.

Mr. SIKES. Without objection, it is so ordered.

[The report follows:]

THE ESTABLISHMENT OF AN ARMAMENT DEVELOPMENT CENTER

SUMMARY

The Department of the Army is currently reviewing the pros and cons of consolidating armament development into one center. The benefits of consolidating a process which is so costly, vast, and essential are numerous.

The Army presently has available a comprehensive, in-depth study—the Lewis study—of assorted alternative methods of organizing and implementing such a development center (ADC), prepared by the Army Materiel Command Committee-Armament.

Among these alternatives, we recommend strongly that alternative 5A be implemented. This paper presents an abundance of documented information to substantiate our final recommendation. Alternative 5A would establish a two-site

ADC, with large and small caliber weapons systems and ADC headquarters at Picatinny Arsenal in Dover, N.J., and ballistics research and chemical systems at Aberdeen Proving Ground in Aberdeen, Md.

The Lewis study itself recommended alternative 5A "because the ADC would be collocated with the two principal weapons systems laboratories which constitute 70 percent of the ADC population, it enjoys relative ease of implementation, and because top management is located where it can directly influence generation of a fresh start." Alternative 5A would also displace the least number of people, cost the least amount of money to implement, and be operational by 1980, as early as any alternative studied.

We intend in this paper to emphasize certain points raised by the Lewis study and to point out, for consideration by the Secretary of the Army, additional facts that we believe should play a major role in choosing the plan to be implemented, particularly considerations concerning economic impact.

GREAT BULK OF DEVELOPMENT WORK PERFORMED AT PICATINNY

It is important to remember that the development process is the one that is being addressed. As a general rule, production of all but prototypes is a process done apart from developmental work. Additionally, the research procedures so essential to the development of munitions and armament systems are wholly different from the developmental activities which would be consolidated in an Armament Development Center.

Armament development activities presently take place at seven installations. The largest contributor to the development community, by a substantial margin, is Picatinny Arsenal.

More than 43 percent of the armament development budget currently is allocated to Picatinny. More than 41 percent of the armament development personnel are now at Picatinny. It would be illogical to move them to another location, in effect, moving the mountain to Mohammed. The abundance of available information supports this logic.

Picatinny Arsenal is, in a sense, functioning now as an armament development center insofar as the greatest bulk of the armament development activities are located there.

SUCCESSFUL HISTORY OF PICATINNY PERFORMANCE

Although consolidation of the armament development process is desirable and warranted in the eyes of AMC, it is not being considered as a result of any failure or shortcoming by Picatinny or any other specific installation.

As a matter of fact, the original AMARC report published on April 1, 1974, stated, "In several laboratories, for example, MICOM, Edgewood, Picatinny, and Night Vision Laboratory, it was very obvious that good leadership, merged with significant mission assignments, resulted in a productive environment."

Reinforcement of this favorable assessment is readily available.

Retention of large caliber systems at Picatinny is the only factor that makes possible the establishment of an ADC without total new construction—alternative 2, Fort Irwin—or relocation of fully half of those people—alternative 3, Aberdeen—essential to the armament community in an ADC.

Only one of the final three recommendations attempts to implement the ADC without giving the responsibility for large-caliber systems to Picatinny. That recommendation costs 55 percent more to implement—$138 million for alternative 3 versus $76.5 million for alternative 5A. It also requires 112 percent more new personnel to be relocated—with attendant costs—than would alternative 5A—another reason why alternative 5A was judged "best" by General Lewis.

In addition, alternative 5A can be implemented in 4 years while alternative 3 would take 5 years.

COLLOCATION OF RELATED ACTIVITIES AND WORKFORCE FLEXIBILITY

In the internal interfaces section of operational considerations, the Lewis report states, "There should be a constant flow of technical information between the Small Caliber and Large Caliber Weapons Systems Laboratories in the areas of fire control, fuzes, munitions, and other common technologies. Some alternatives facilitate this interchange through collocation of laboratories which permits housing common disciplines together." This is an outstanding attribute inherent in alternative 5A.

Development expertise for fuzes, munitions, propellants, and explosives—those technologies most closely related to weapons system—is presently at Picatinny Arsenal.

The inescapable conclusion is that the greatest opportunity for collocating related processes exists in the implementation of alternative 5A. This fact is substantiated in two ways: First, the overwhelming majority of alternatives addressed recognized the practicality of placing the large caliber weapons systems at Picatinny; and, second, the expertise in related activities is already there.

The Lewis study notes this when it addresses the flexibility of the workforce. "If all personnel in the center working within a specific technology area, such as fire control or munitions, are at a single location rather than dispersed, there is a greater potential for shifting personnel to meet changes in workload, revitalizing an ailing activity, or 'cross-fertilizing' the laboratories." Alternative 5A would adequately insure this interaction.

Large- and small-caliber weapons development accounts for 70 percent of the armament population.

Regarding the location of the Small Caliber Weapons Systems Laboratory, the Lewis study suggests that it could be located at Picatinny Arsenal "with the Large Caliber Laboratory where there would be an opportunity for personnel to interact in the functional areas of weapons, munitions, fire control, fuzes, and supporting disciplines, as well as an opportunity to share unique facilities."

Collocating these activities at Picatinny Arsenal would make the assignment of the headquarter function of the ADC an easy task. The Lewis study states, "It is believed essential that the headquarter be located with the mass of those people engaged in the truly developmental activities within the ADC." This clearly would assure the most effective management of the greatest amount of activity and greatest number of people.

DEFECTS IN SEPARATION

The organizational defects inherent in separating the small and large caliber weapons systems—alternative 5—are numerous.

The Army would lose a great deal of that flexibility previously discussed. It would not be able to consolidate to as great a degree as it could through collocation, and would suffer many of the operating and management hardships prevalent in the status quo.

In contrast to alternative 5A. alternative 5 is an "artificial" oganization arrangement that looks much better on paper than in the application. It reintroduces several decisions that would be made implicitly in the acceptance of Alternative 5A—for example, where to locate fire control, fuze, and munitions activities—and ignores the fact that these activities are to be collocated to the greatest extent possible, but would be dispersed again under alternative 5.

Regarding the use of firing ranges for testing purposes the Lewis study says, "All alternatives include some collocated firing ranges, but the alternatives differ markedly in capability of ranges available."

For example, Aberdeen Proving Ground has firing ranges in which high-explosive shells can be fired at longer ranges over land. However, the waiting time for those ranges at APG which must now be utilized for testing some of the items developed at Picatinny normally is from several months—for high priority testing—to a year or more—for lower priorities. Also, the great bulk of ammunition development testing is presently being done elsewhere: Yuma proving Ground, Fort Sill, Camp Edwards, White Sands, and Picatinny. This would not change no matter which alternative is chosen for locating the ADC. If the ranges that now accommodate testing at Picatinny were totally excluded from use, this waiting time for range use at APG—reportedly a chronic reason for schedule slippages over the years—could only grow worse.

Termination of these facilities at Picatinny Arsenal in the name of consolidation would, in this case, be counter-productive to increased efficiency.

THE FRESH START CONCEPT—BENEFITS AND DANGERS

In explaining the fresh start concept as a point that needs to be more substantial than cosmetic, the Lewis study says, 'A new alinement of management, some new faces, some new buildings or laboratory facilities, some changes in loca-

tion, some changes in delegation of authority and changes in operational and procedural policies can all contribute to a climate of newness and should be deliberately exploited."

Once again, however, care must be exercised to insure that this is not a principle which is better on paper than in the application.

The Lewis study recognizes this danger when it notes the decision to implement any alternative should be made with recognition of the "need for skillful and flexible implementation to retain the people—professional, subprofessional, support, and administrative personnel—who comprise the expertise in the current community, thereby maintaining continuity in important programs and the capability to produce armaments."

The risk to Army R.D. & E. and to the defense posture is the greatest under alternative 3. Because this alternative requires more personnel to relocate than any other, chances of losing the expertise of those who will not move are the highest.

It is a fact of life that those with top-level scientific and technical skills so essential to the armament development process are also those who would find their skills most marketable in the private sector, probably at higher salary levels as well.

If these experts could obtain positions without enduring the relocation process for themselves and their families, the Army would be in real danger of losing those skills that would be hardest to replace.

Certainly a fresh start is a good idea conceptually. It would serve many useful purposes. But it must be determined positively that the quest for this new beginning will not have adverse effects on the consolidation process—as well it might if not applied prudently.

Alternative 5A assures adequate attention to the fresh start as a concept and least jeopardizes the continued operation of the armament development process by requiring far fewer people to relocate (1,374, or 18 percent, for alternative 5A versus 3,105, or 49 percent, for alternative 3).

COMMUNITY ECONOMIC IMPACT

Finally, we should elaborate on the economic impact upon those communities involved that would result from implementing any plan to form an ADC.

The Lewis study says that "the two-site alternatives appear to provide the best balance between cost, personnel dislocations, and operational effectiveness." We would concur while adding community impact as an additional factor that is best balanced by choosing a two-site plan.

Community impact, we strongly believe, should be considered by the Army in its decisionmaking process.

The disastrous economic effects which would accompany the closing of Picatinny Arsenal are addressed at length in appendix A (attached). But a few critical points should be examined here.

New Jersey's current rate of unemployment is 10.9 percent. The State consistently has endured one of the highest unemployment rates throughout the current recession. Thus, its residents have been subjected to the harsh realities of an economic slump to a far greater extent than residents of other States.

The Lewis study, in summarizing the community economic impact of reductions at Picatinny Arsenal, says—

The local community at this site is currently in an economic slump, precipitated to some degree by past DOD actions at the arsenal. Unemployment is significantly higher than the national average. Further reductions would aggravate this situation.

The study supports this finding by characterizing as "severe" the community economic impact that would result from choosing alternative 3. New Jersey simply should not be asked to tolerate this severe economic upheaval.

As will be noted in appendix A, the economic effect that would result from implementing alternative 3 would be far greater than the direct loss of the 5,700 jobs and the $100 million annual payroll presently at the arsenal.

Indeed, use of Department of Defense economic multipliers shows that a minimum of 8,800 jobs and perhaps as many as 16,700 would be lost (both directly and indirectly) by closing Picatinny Arsenal.

It should be noted also that, with the imminent closing of Frankford Arsenal in Philadelphia, New Jersey will be forced to absorb the loss of about 600 jobs (one-sixth of the 3,600 workers at Frankford are estimated to be New Jersey resi-

dents). Many of those people who are due to lose their jobs at Frankford could easily be placed at Picatinny. This is possible both because of the commutable geographic distance and the close relation of tasks presently performed at Frankford to those accompanying weapons systems development at Picatinny under 5A.

This would allow a greater degree of collocation of related functions as well, an objective of an effective ADC.

Evidence of the dire economic situation can be found within the Department of Defense itself. The Office of Economic Adjustment (and its Economic Adjustment Committee) in the Office of the Assistant Secretary of Defense for Installations and Logistics has stated in its "Report of Economic Adjustment Program: Dover Area Communities, New Jersey (January 1975); "* * * the impact aused by the Defense realinement actions at Picatinny Arsenal has significantly added to the depressed state of the local economy and thereby warrants assistance by the EAC."

To this end, the EAC has developed a plan of action aimed at restoring a healthy economy to the area through an energetic economic development program that is sorely needed. The inadvisability of further reductions, possibly more than 16,000 jobs, in the face of this recovery program is obvious.

Additionally, economic considerations consistently point to the devastating effects inherent in alternative 3.

ALTERNATIVE 5A—THE ALL-AROUND BEST CHOICE

We believe that General Lewis' recommendation that alternative 5A is the all-around best choice for establishing an ADC is amply supported by the facts. We ask only that you give additional consideration to the critical matter of economic impact and to New Jersey's unfair share of the burden under alternative 3.

The case recommending the choice of alternative 5A can be made on operational, management, and cost considerations most crucial to the Army.

We ask that you make alternative 5A your final choice.

Mrs. MEYNER. We noted in our summary the broad view that alternative 5A would displace the least number of people, cost the least amount of money to implement, and be operational by 1980, as early as any alternative studied.

Specifically, armament development activities were taking place at seven installations. The largest contributor to the development community, by a substantial margin, was Picatinny Arsenal.

More than 43 percent of the armament development budget in 1975 was allocated to Picatinny. More than 41 percent of the armament development personnel was at Picatinny. It would be illogical, we believed, to move them to another location, in effect, moving the mountain to Mohammed. The abundance of available information supported this logic.

Since the greatest bulk of the armament development activities was located at Picatinny Arsenal, we stated that it was, in a sense, functioning as an armament development center already.

We addressed ourselves to the subject of economic impact on the greater Picatinny community and we stated that this was something that we strongly believed should be considered by the Army in its decisionmaking process.

New Jersey's rate of unemployment at the time of our report was 10.9 percent. (It remains at just about 10 percent today, the fourth highest in the Nation.)

I think this is important that we take this into consideration.

During the recession the State consistently endured one of the highest unemployment rates. Its residents were subjected to the harsh realities of an economic slump to a far greater extent than residents of other States.

INFORMATION PROVIDED BY NEW JERSEY DEPARTMENT OF LABOR AND INDUSTRY

At this point, Mr. Chairman, I would like to request permission to insert in the record appendix A of our delegation report, "The Economic Impact of the Closing of Picatinny Arsenal." This was compiled from information provided by the New Jersey Department of Labor and Industry.

Mr. SIKES. Without objection, the report will be included.

[Appendix A follows:]

APPENDIX A

ECONOMIC IMPACT OF THE CLOSING OF PICATINNY ARSENAL

Analysis by the New Jersey Department of Labor and Industry's Division of Planning and Research, aided by a survey of some 100 companies performing contract work for Picatinny Arsenal, indicates that at least 8,800 and perhaps as many as 16,700 jobs are at stake in the event of a shutdown of the arsenal. This includes the 5,735 jobs at the arsenal itself, about 850 jobs currently dependent directly upon the arsenal's contracts with New Jersey companies, and somewhere between 2,300 and 10,100 jobs that are supportive of or indirectly dependent upon the installation's presence in the Dover area.[1] At a time when 1 out of every 10 workers in the area is already unemployed—in part because of past cutbacks at Picatinny—even the most conservative of these job loss estimates would be a severe blow.

PICATINNY ARSENAL'S ECONOMIC IMPORTANCE

Located in Rockaway Township, Morris County, Picatinny Arsenal represents a very significant portion of the economic base of what the U.S. Department of Defense has defined as the Greater Dover Community. The arsenal—the largest employer in Morris County and one of the two dozen largest in the entire State of New Jersey—accounts for roughly one out of every eight jobs in the 10 municipalities that comprise the Greater Dover Community.[2]

Its authorized civilian strength is 5,735 (according to the Lewis study) and its current employment level is about 5,400. The only other large employers in the greater Dover community are Thatcher Glass with about 1,100 employees and McGregor Sportswear with about 800 employees.

Although the employes of Picatinny Arsenal commute from all over northern New Jersey, the greatest proportion (60.3 percent) live in Morris County. Another 18 percent reside in Sussex County. There is a heavy concentration within 10 municipalities.

Picatinny Arsenal's importance to this area can also be expressed in dollar terms. Its budget in fiscal year 1975 amounted to $226.7 million, of which roughly $100 million was for payroll. It spent about $30 million in procurement contracts in New Jersey alone during the past year, plus another $7.1 million in local purchase orders. The payroll dollars represent a very substantial source of spending power within those municipalities in the area surrounding Picatinny.

About 80 percent of the jobs at Picatinny Arsenal are filled by men, whose average age is 48 years. The average age for women employees is 43 years. Obviously the bulk of these jobs are filled by family breadwinners whose age suggests difficulty in obtaining alternative employment in the event of layoff.

Not only is Picatinny Arsenal a source of jobs for residents of this part of New Jersey, the arsenal is a source of well-paying, seasonally stable jobs that can be regarded as a real asset to local communities. The average salary paid to civilian workers at Picatinny is $14,822. Salaries range from almost $20,000 for

[1] This wide range of estimates results from use of alternative assumptions as to the appropriate employment multiplier to fit this situation. This is explained further on in this report.

[2] The 10 municipalities, with an aggregate population of 110,276 in 1970, are town of Dover, Wharton Borough, Rockaway Township, Rockaway Borough, Denville Township, Roxbury Township, Mine Hill Township, Mount Arlington Borough, Randolph Township, and Jefferson Township.

scientists and engineers to just under $8,000 for clerical workers. Salary levels by broad job classification are presented below.

Salaries of Picatinny Arsenal workers by broad job classification

Scientists and engineers	$19,934
Technicians	14,732
Administrative	14,297
Production	13,000
Laborers, maintenance	10,469
Clerical	7,866
Average	14,822

CURRENT ECONOMIC CONDITIONS IN THE AREA

Unemployment is currently at a very high level in the 10-municipality greater Dover community. The jobless rate in this local area stood at 10.4 percent in February 1975 (before seasonal adjustment), up one-third from a 7.8 percent rate a year earlier. The unemployment rate for the full Newark labor market area of which the greater Dover community is a part was 11.3 percent in February. In marked contrast, February's unemployment rate in the Baltimore labor market area, which includes Aberdeen Proving Ground, was considerably lower at 5.6 percent. The Newark labor market is currently classified by the U.S. Department of Labor as an area of "substantial unemployment" whereas the Baltimore labor market is classified in the "moderate unemployment" category.

The very high current unemployment rates in the area surrounding Picatinny Arsenal are, of course, due in good part to the national economic recession, which has severely impacted all parts of New Jersey, raising its unemployment rate to 11 percent. Since 1969, the State's economy has shown serious deterioration because of two back-to-back recessions and a severe erosion of its manufacturing sector, which remains the core of its economic base. The Morris and Sussex County region has shared in this erosion of manufacturing activity. However, spending cutbacks at the arsenal have also been a significant factor in this area. Over the past 7 years, about 3,500 jobs at the arsenal—roughly 8 percent of all jobs in the greater Dover community—have been eliminated and these layoffs have been accompanied by a series of reductions in grade of those still employed, which has had an additional negative impact on purchasing power in the area.

Both the Lewis study and the Defense Department's Office of Economic Adjustment have characterized the cumulative effects of these personnel actions at Picatinny as significant contributors to the current economic problems of the area.

The Lewis study states: ". . . although each individual employment cutback at Picatinny Arsenal may not have been significant, the cumulative impact of all the cutbacks which have occurred over the past 6½ years clearly has been substantial." While the serious impact resulting from employment cutbacks totaling 3,500 is rather obvious, according to the Lewis study there are no hard data on the full extent of the reductions of grade that have occurred over this period. However, the study did analyze the impact of one personnel action that resulted in the reduction in grade of 480 employees at the time of an employment cutback in June 1974. It found that the direct payroll loss to the community of this single action was $112,656 and that this translated into a loss of purchasing power of about $250,000 per year. It then went on to say: "If similar reductions in grade actions have accompanied the employment cutbacks of the previous six years, then the cumulative loss in purchasing power to the greater Dover community . . . is very substantial."

The Lewis study also observed that "it has been forcibly argued by local community leaders that the employment cutbacks at Picatinny Arsenal have contributed to the community's present depressed economic situation in two ways. First is the actual loss of jobs and consumer purchasing power resulting directly from the cutbacks. The second is in the negative outlook the cutbacks have fostered in the community business sector. Businessmen are afraid to undertake new ventures; they are always waiting for the next shoe to drop at the arsenal."

In its Report of Economic Adjustment Program: Dover Area Communities, New Jersey (January 1975), the Defense Department's Office of Economic Adjustment echoed much the same sentiments. Their report concluded that "The past employment cutbacks at Picatinny Arsenal have undoubtedly aggravated an already deteriorating economic situation in the Dover area communities," and

that "the arsenal's cutbacks caused a disproportionately high share of local job losses . . ." Commenting on the role of the arsenal in the creation of a depressed economy, the report concludes: "It has been an important contributor to the present situation. As the largest employer in Morris County and the pre-eminent employer in the Dover area communities, this fact is uncontestable. Picatinny Arsenal's reduction-in-force has impacted the Dover area communities significantly . . ."

Though it is impossible to quantify the independent effects of past layoffs at Picatinny and other economic forces adversely affecting the local economy, there can be no doubt that the area surrounding Picatinny Arsenal is currently faced with serious economic difficulties which would be severely aggravated by further staff reductions at the arsenal. Unemployment insurance claims under State and Federal programs have more than quadrupled in the Dover Unemployment Compensation Office over the past 8 years. A similar trend has occurred in the Newton Unemployment Insurance Office, where high claims loads associated with past personnel actions at the arsenal have especially affected residents of the towns of Newton and Sparta. As of March 22, 1975, unemployment insurance claims totaled 4,657 in the Dover office and 3,337 in the Newton office.

Needless to say, deteriorating economic conditions have caused State employment service offices to have increasing difficulty over the past several years in finding jobs for workers laid off directly or indirectly as a result of Picatinny spending and unemployment cutbacks. Their difficulties have been compounded by the fact that in Sussex and Morris Counties (especially northwestern Morris) there are large out-commuting imbalances—that is, those counties have substantially more residents in the labor force than jobs located in the local area. For example, 37 percent of Morris County's residents currently have to commute to jobs in other counties.

The town of Dover—still considered the commercial and economic hub of the arsenal area—has been particularly hard hit up to now. It has suffered serious deterioration in jobs, housing, income, and retail trade partly as a result of past Defense Department actions. A large shopping center in the town has gone into receivership. Sales in local retail stores have decreased at annual rates ranging from 6 to 15 percent for the past 6 years. Eighteen retail businesses have closed in Dover alone since 1970 and, not surprisingly, bank deposits have declined substantially. The town's unemployment rate was 10 percent in February 1975, and at present, almost 7 percent of the town's residents are on welfare.

WHAT IF PICATINNY NOW CLOSES?

The impact of a shutdown of Picatinny Arsenal would go well beyond the direct reduction of 5,735 jobs located at the installation itself. The arsenal is a major source of contracts to New Jersey companies, especially in the local area. In addition, it is an integral part of the area's economic base, which means there are many support jobs in other industries that are dependent upon a continued flow of these Federal funds into the area. These include jobs in industries that supply the arsenal with goods and services essential to its operations, as well as jobs in local service and trade establishments that serve the needs of Picatinny employees.

Through a survey of about 100 of Picatinny's contractors located in New Jersey (conducted with the assistance of the Morris County Planning Board), the Division of Planning and Research has determined that approximately 857 jobs in New Jersey were directly dependent upon the $30.6 million of contracts issued within the State during 1974. It was found that the bulk of these contractors had relatively stable and long-term associations with the arsenal. The median length of association with the arsenal was 10 years. Most of the contract work was performed at the sites of these companies, and of that which was subcontracted, most went to other New Jersey firms. Four firms indicated that they would have to close if their Picatinny contract work dried up, and about one-third of those responding envisioned some kind of reduction in staffing in the event of a shutdown of Picatinny Arsenal.

If the estimated 857 jobs directly related to New Jersey contracts are added to the 5,735 reduction of authorized strength at the arsenal, a total of roughly 6,600 jobs are found to be directly dependent upon the arsenal. This still does not count the jobs indirectly dependent upon the installation, which can only be estimated using regional employment multipliers.

In order to estimate the indirect employment impact of a shutdown at Picatinny, the Division of Planning and Research turned to the U.S. Department of

Defense for guidance since they regularly utilize regional employment multipliers in their own impact studies.

OFFICE OF ECONOMIC ADJUSTMENT MULTIPLIER

In a July 1973 report to Congress prepared by the Office of Economic Adjustment, there is a methodological discussion of how the Department of Defense can measure the economic impact of DOD facilities. That report says that, "On a statewide basis, the employment impact of defense expenditures has been found to vary between 0.2 and 3.0—exclusive of the direct DOD employee himself—with a mean of 1.53 supporting sector jobs."

If this multiplier used by the Office of Economic Adjustment is applied to the loss of direct jobs at Picatinny in the event of a total shutdown, the total employment impact on New Jersey of such a shutdown would range between 14,500 and 16,700 lost jobs, depending upon whether the 857 jobs dependent directly on contracts are excluded or included in the direct employment base. The higher of the two estimates applies the multiplier to a base of 6,592 direct jobs—5,735 at the arsenal and 857 in the employ of New Jersey contractors. The lower estimate assumes that the contract-dependent jobs fall within the indirect employment category and therefore represent part of the multiplier effect rather than part of the base.

Utilizing the same Office of Economic Adjustment employment multiplier, and assuming that contract-dependent jobs will not be significantly impacted—except as is implicit in the multiplier itself—the total employment impact of alternative 5 would be a loss of about 1,200 jobs in the State and the impact of alternative 5A would be a gain of 2,400 badly needed jobs.

LEWIS STUDY MULTIPLIER

In its Armament Development Center report, the Lewis study used a much lower employment multiplier in assessing the indirect community impact of a shutdown of Picatinny. Instead of assuming that 1.53 indirect jobs were dependent upon each direct job at the installation, it used a multiplier that assumed only 0.5 indirect jobs for every direct job. It is not known whether this was a misapplication of the Office of Economic Adjustment multiplier or whether the Lewis study had an economic rationale for the use of such a small multiplier. In any case, the Division of Planning and Research of the Department of Labor and Industry decided to utilize this multiplier to provide alternative impact estimates that must be regarded as extremely conservative.

The results of using the Lewis study multiplier appear on table I, along with the impact estimates derived using the Office of Economic Adjustment formula. In this case the impact of a total shutdown of Picatinny—alternative 3—would be a loss of between 8,800 and 10,100 jobs, depending upon whether or not contract-dependent jobs are included in the direct employment base. Alternative 5 would result in a loss of over 700 jobs and alternative 5A would generate more than 1,400 additional jobs in New Jersey.

The Department of Defense will have to judge which of the multipliers and other assumptions are the most appropriate for the Picatinny Arsenal situation. However, it is clear that under any set of assumptions, the impact of a shutdown on New Jersey would be severe. If this happens, the State will lose anywhere from a minimum of 8,800 to as many as 16,700 jobs. Considering that unemployment in the State currently stands at 11 percent and that more than 150,000 manufacturing jobs—one-sixth of the 1969 total—have been lost since 1969 in part because of permanent relocation of industries to other parts of the Nation, New Jersey can ill afford this kind of further erosion of its economic base.

An Update on the Economic Impact of a Shutdown of Picatinny Arsenal[1]

Today, as it was in April 1975 when the Division of Planning and Research prepared a detailed report dealing with the economic impact of a shutdown of

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[1] All unemployment statistics discussed in this report for New Jersey and its municipalities are based on the unemployment estimating method this State feels most accurately reflects the true situation. The statistics for other areas are based on the new U.S. Bureau of Labor Statistics methodology that the State of New Jersey is currently challenging in Federal court. All data are unadjusted for seasonality, since seasonally adjusted data are not available for all States and areas. If BLS figures were used for New Jersey, the May 1976 figure would be 9.2 percent, still significantly above the national level of unemployment.

Picatinny Arsenal, the installation continues to be a major part of the economic base of the Greater Dover area and one of the largest employers in New Jersey. It remains evident that any shutdown or curtailment of activities at the arsenal would have a far-reaching effect on both the local and statewide economy.

While some slight recovery from the recent recession has been noted, the economic climate in New Jersey remains unfavorable. As in the past two recessions, New Jersey is not rebounding as quickly as or uniformly as the Nation. At the peak of the recession, one out of every seven workers was unemployed; today, over one out of every nine workers in the state is still unemployed. At the same time the Nation as a whole has posted a significant decline in unemployment since the apparent end of the last recession. In May 1976, the national unemployment rate stood at 6.7 percent compared with 9.1 percent in February, March, and June 1975, the highest it went. The unemployment rate in May 1976 in both New Jersey and the Newark standard metropolitan statistical area (SMSA), which includes Picatinny Arsenal, was 11.2 percent.

By way of comparison, the unemployment rate in the Baltimore, Md., labor area, which includes Aberdeen Proving Grounds, was 6.6 percent in May. For the entire State of Maryland the rate was a relatively low 5.8 percent. Within the 10 municipalities which comprise the Greater Dover area the overall unemployment rate was 10.6 percent in May 1976.

With a 1976 fiscal year budget of $224.3 million, of which over $98 million was for payroll alone, the importance of Picatinny Arsenal to the local communities cannot be overemphasized.

At the current time the level of employment at Picatinny Arsenal is 5,048—92 military and 4,956 civilian employees. The actual employment represents over 11.5 percent of the total number of jobs in the Greater Dover area. Even with a full table of organization—160 military and 5,849 civilian personnel—staffing at ARADCOM will still be almost 35 percent below the 9,135 positions authorized for Picatinny Arsenal in 1967. Any increases resulting from the ARADCOM reorganization will contribute to bolstering the region's depressed economy. At an average salary level of approximately $15,000, the additional civilian staffing of 893 people will represent a payroll increase in excess of $13 million. The expenditure of this additional income will benefit the local and statewide economies and generate additional employment opportunities.

If this projected increase in employment is expanded to include the estimated indirect employment generated by ARADCOM, the total impact based on civilian jobs only, will be an approximate gain of 1,366 jobs.[2] While small, this figure does represent a 3.1 percent increase in area employment.

Increases of employment at Picatinny Arsenal by locating the Army's ARADCOM there also represents a case of DOD assisting depressed economies—New Jersey, Newark SMSA, and Greater Dover area—rather than further hurting them in favor of other States and areas whose economies have been faring much better.

Mrs. MEYNER. Following the submission of our report and those of other congressional decisions, the decisionmaking process by the Army moved into its final stages.

IMPLEMENTATION

On December 2, 1975, 8 months ago, Secretary of the Army Martin Hoffmann announced the formation of the Armament Development Center, ADC, to be located at Picatinny Arsenal. This decision reflected a revised alternative 5A plan. Now called the Armament Research and Development Command, ARRADCOM, it has begun already to become a reality.

An implementation task force of approximately 150 people has been in operation since January of 1976. The bulk of its personnel arrived

[2] The indirect impact is measured by applying an employment multiplier of 1.53 as estimated by the Office of Economic Adjustment in 1973. See "The Impact of Defense Cutbacks on American Communities," report of the President's Economic Adjustment Committee on Communities Affected by the Defense Realinements Announced on April 17, 1973, transmitted to the Congress July 1973, p. 39.

at the arsenal in February and March of this year. Only half of this task force is comprised of personnel from Frankford, Edgewood, Watervliet, and Rock Island. The other half is personnel already located at Picatinny.

The task force's plan is for overseeing the rehabilitation of existing structures and the transportation and installation of equipment to be used for ARRADCOM missions. Most of the contents of several truckloads of this equipment has come from Frankford.

The task force further has compiled a minutely detailed implementation plan to assure timely operation of critical functions and operational readiness of all supportive resources from establishment of ARRADCOM on October 1, 1976.

Not only has this plan evolved from 6 months of work, but it has utilized the resources of all the arsenals involved in the realinement plan approved by the Army.

Any alteration in the plans at this time would imperil the uninterrupted support that has been employed in this critical defense and national security capability of our country.

In February of this year the Army requested an authorization of $650,000 for installation of a heat recovery system at the arsenal. The system will include an incinerator capable of recycling solid waste for heating purposes. Planned to be located next to the powerhouse now in existence at the arsenal, it will help to meet the increased power demands required by the ARRADCOM headquarters. This request has been authorized and appropriated by the Congress.

The Picatinny community is prepared to receive the new personnel and their families with adequate housing, recreational and educational facilities.

In addition, the Rockaway Valley Regional Sewerage Authority, which serves Dover where Picatinny is located, has just recently received a Federal grant of more than $18 million to begin construction of new facilities.

The Picatinny community, including more than 200,000 citizens who wrote letters or signed petitions to the New Jersey congressional delegation and Defense Department officials has done its part. The Department of the Army has done its part.

I would sincerely hope that this committee and Congress would do its part.

I submit for the consideration of the subcommittee a letter signed by the entire New Jersey congressional delegation with the exception, understandably, of my distinguished colleague and good friend, Ed Patten, a member of this subcommittee.

The letter, Mr. Chairman, strongly supports my position on this matter.

In the interest of the U.S. national security and military efficiency, I respectfully urge the subcommittee to approve the Army's request to reprogram the $7.363 million to continue the establishment of the Armament and Research Development Command at Picatinny Arsenal in Dover, N.J.

Thank you very much.

[The letter referred to and other material subsequently provided by Congresswoman Meyner follow:]

CONGRESS OF THE UNITED STATES,
Washington, D.C., July 22, 1976.

Hon. ROBERT L. F. SIKES,
Chairman, Subcommittee on Military Construction, Committee on Appropriations, U.S. House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: We the undersigned members of the New Jersey congressional delegation hereby urge the Subcommittee on Military Construction to approve the Department of the Army's request to reprogram $7,363,000 within the military construction, Army appropriation under authority of section 102, Public Law 93–107.

We believe it urgent that this approval be granted to provide minimum facilities necessary to establish the Armament Research and Development Command (ARRADCOM) at Picatinny Arsenal in Dover, New Jersey.

The Picatinny community has done its part; the Department of the Army has done its part. We fervently hope that Congress will do its part in the interest of the United States' national security and military efficiency.

Sincerely,

HELEN MEYNER, FRANK THOMPSON, Jr., DOMINICK DANIELS, PETER RODINO, ANDREW MAGUIRE, ROBERT A. ROE, JOSEPH G. MINISH, WILLIAM J. HUGHES, JAMES J. HOWARD, HENRY HELSTOSKI, MILLICENT FENWICK, MATTHEW RINALDO, CLIFFORD P. CASE, HARRISON A. WILLIAMS, Jr., JAMES J. FLORIO, and EDWIN B. FORSYTHE.

A RESPONSE TO ALLEGATIONS THAT PERSONNEL AT FRANKFORD ARSENAL ARE UNWILLING TO MOVE TO PICATINNY AND THAT THE FACILITIES AT PICATINNY ARE INFERIOR TO THOSE EXISTING AT FRANKFORD

FACTS

1. The case study and justification folder for the U.S. Army Research and Development Command estimated that 25 percent of the personnel assigned to Frankford Arsenal would exercise their right to a transfer of function. This estimate was predicated on past experience and an analysis of the work force engaged in doing work that was identified for transfer. This analysis included primarily a study of employee's eligibility for retirement, family status, age, length of service, marketability of skills in the local private or public sector, distance involved in the relocation, et cetera. Approximately 48 percent of Frankford Arsenal employees indicated a willingness to accept transfer of function. These affirmative canvass letter responses were greater than affirmative responses from other organizations identified for transfer.

2. The primary considerations affecting a decision by an employee to transfer is protection of his career tenure and potential for career advancement. For those long residents in a particular area, family and social ties are often significant factors. Of the many hundreds of questions received from employees involved in the reorganization, the overwhelming majority concerned job rights. Queries concerning the quality of buildings in which work would be performed were rare.

3. The general statement has been made that the Army plans to use "old, converted warehouses at Picatinny to replace modern functional facilities at Frankford Arsenal."

Since 1946, 413 new buildings with a total of 750,000 square feet have been constructed at Picatinny. This alone is twice as many buildings as Frankford Arsenal possesses.

The facilities at Frankford which house the functions being transferred to Picatinny have an average of 53 years. The buildings being converted at Picatinny average 43 years.

If the date of last major building conversion or alteration is considered as opposed to date of original construction, then the Picatinny buildings average approximately 23 years as opposed to 44 years for those at Frankford.

To describe these Picatinny buildings as "warehouses" is misleading. The majority (56 percent) of the space involved was not constructed as warehouse space. Most of the original warehouse space has already been converted by prior year renovation projects. Only 8 percent of the total space involved should be

considered as warehouse space, and it will be suitable with minimal construction, for use as light shop and light laboratory space.

4. The utilization of former warehouses as structures is sound engineering practice and discussion of such use is only meaningful in comparison to some other type of structure. The vast majority (71 percent) of the space in question at Frankford was originally constructed as machine-shop space. The two groups are analogous structurally except that shop space is generally less efficient for energy conservation because of high ceilings and large windows and less utilitarian for the same reasons. Only 28 percent of this machine-shop space at Frankford has been renovated in any major way.

5. A far more accurate description of the facilities at Picatinny would be that of the square footage being altered; for example 60 percent is being continued in the same type of use for which it was originally constructed; 32 percent is being converted from administrative space to light laboratory or light shop, a very minimal conversion; and 7 percent is being converted from warehouse to light shop and 1 percent from warehouse to light laboratory, both very minimal conversions.

6. These facilities when constructed will be far superior to the antiquated Frankford facilities currently housing the functions being transferred to Picatinny. Some of these buildings at Frankford have already reached the end of their useful life. Most of the remainder will reach this point within 20 years. Further, this action will consolidate within 13 buildings at Picatinny functions now contained in 32 buildings at Frankford. This not only economizes, but provides a far better and modern working relationship.

AMERICAN FEDERATION OF GOVERNMENT EMPLOYEES

As representative for over 3,500 of the employees of Picatinny Arsenal, it is not often that we find ourselves on the same side of an issue with the Department of the Army. This subcommittee has before it a request to reprogram over $7 million for the establishment of the U.S. Army Armament Research and Development Command (ARRADCOM). The designation of Picatinny Arsenal as the site of ARRADCOM in 1975 was the culmination of over a year's effort on the part of the American Federation of Government Employees, the New Jersey State AFL–CIO, the New Jersey Congressional Delegation, New Jersey State officials and countless individuals both in and out of Government. This effort was necessary even though Picatinny Arsenal should have been the logical choice from the start. Picatinny needed the least amount of new facilities and required the fewest transfers of personnel.

Unfortunately, almost a year has passed since Picatinny Arsenal "won" the ARRADCOM mission. Instead of the promise of future job opportunities in this economically depressed area, Picatinny has just undergone a reduction-in-force and over 100 more arsenal employees have joined the ranks of the unemployed. This is really our concern today and it is a concern that will surely be justified if the committee does not approve the Army's request to reprogram the money to establish ARRADCOM.

Last July, AFGE testified before this committee on the subject of base realinements in New Jersey and the Northeast. We believed at that time that the Department of Defense was engaged in a concerted effort to establish the South as the military capital of the world. We labeled this effort the "Southern Strategy" and hoped that an awakening would occur in the Northeast congressional delegations that would fight this economic rape of our area. We believe this effort was one of the prime reasons that the U.S. Army selected Picatinny as the site of ARRADCOM and we stand ready to oppose any effort that would reverse, or in any way alter, that decision.

Yes, we agree that the Army lies with statistics and, in fact, with their cadres of systems analysts and operations research specialists, the Pentagon has become truly recognized experts in this field. This is why congressional oversight of base closures is necessary and why we lobbied for the recently vetoed O'Neill-Cohen amendment to the 1977 Military Construction Budget. In the case of ARRADCOM, however, that oversight has already occurred. The decision was made and surprisingly, in this case, we believe the decision was the right one both in terms of the Army's mission and the ultimate cost to the taxpayer. What remains is the implementation of that decision and we believe that any delay

will result in only more layoffs at the arsenal as well as additional waste in the way the Pentagon provides our Nation's military defense. We hope that will not occur and hope that this committee will speedily approve the Army's request.

G. NANCY MCALENEY,
President,
JOSEPH D. GLEASON,
National Vice President.

NATIONAL FEDERATION OF FEDERAL EMPLOYEES,
Dover, N.J., July 28, 1976.

Hon. HELEN S. MEYNER,
126 Cannon Office Building,
Washington, D.C.

DEAR MRS. MEYNER: On behalf of 1,500 engineers, scientists, and other professionals represented by Local 1437 at Picatinny Arsenal, and on behalf of the entire Picatinny community, I wish to express our concern over misleading testimony and allegations presented to the subcommittee on military construction. As you know, the Department of the Army has requested approval to reprogram $7,363.000 within the military construction Army appropriations under the authority of section 102, Public Law 92–107.

The purpose is to provide funds for two new buildings and refurbishing of 12 others at Picatinny as part of the consolidation of Army munitions and weapons R.D.T. & E. activities to form the new Armament Research and Development Command (ARRADCOM) at the New Jersey site. The plan for reorganization, which has been extensively studied—first by the AMARC team, and then in the Armament Development Center report by General Lewis—is intended to make the Army's materiel acquisition process more efficient and to respond to the continuing annual decrease in R.D.T. & E. funds available, as expressed in constant dollars. Unquestionably, the reorganization which is one of the largest undertaken by the Army, will cause disruption and inconvenience to many, and the desire of the Illinois/Iowa delegation to support their communities is understandable.

As you know, local 1437 and the Picatinny community supported revised plan 5A as the most practicable, least disruptive to Army programs, employees and all the localities involved, and the least expensive in construction and other one-time costs. We strongly believe in the validity of that plan, which was the one chosen.

If this request to reprogram is disapproved, it can only create more disruptions and increased costs through delay. The decision and the process of implementing the reorganization have already proceeded too far for this to be a responsible course.

The construction and refurbishing is necessary to provide facilities for equipment and activities to be moved principally from Frankford Arsenal, which is to be closed, and also from Rock Island and Edgewood/APG in Maryland. If the funds are not made available now, it will be necessary to move equipment and people in to makeshift quarters, and to move them again at considerable expense later on. This can benefit no one and will lead to waste of taxpayer's dollars.

Apparently the argument has been made that Picatinny buildings are inadequate and are not worth the expenditure necessary to make them suitable. Nothing could be further from the truth. Many of Picatinny's buildings—B–95, B–92, B–183, B–94, B–151, B–171—to name a few—are new or nearly so, most of the others have been renovated to provide very adequate and comfortable quarters for many of our most advanced research and engineering activities. In this regard, Picatinny compares very favorably with Frankford Arsenal and Rock Island Arsenal, both of which have been in existence since before the turn of the century and have many old and antiquated buildings. Ironically, Local 1437 received many bitter complaints about buildings at Rock Island from former Munitions Command employees who were moved to Rock Island from Picatinny.

While existing buildings could no doubt accommodate the nearly 1,000 additional employees to be located at Picatinny, much of the specialized equipment to be moved from Frankford needs to be installed in permanent facilities instead of catch-as-catch-can temporary locations, to be followed by more disruption and expensive relocation.

We are past the point of no return. Many employees who cannot or do not wish to follow the transfer of their function have already found other jobs in

their locales. To allow further delay will only increase uncertainty and further harm the interests of employees, the Army, and the taxpayer. NFFE strongly urges that reprograming of the funds be approved so we can get on with the job.

Your support, not only of Picatinny and the surrounding communities, but also of the best interests of the Nation's defense and the public are deeply appreciated.

Sincerely,

J. RICHARD HALL, *President.*

Mr. SIKES. Thank you very much. The letter referred to will appear in the record at the conclusion of your statement. You have given us an able and thought-provoking statement and we are very glad to have had the pleasure of hearing you.

STATEMENT OF HON. EDWARD MEZVINSKY

The committee is very pleased to have Hon. Edward Mezvinsky from Iowa.

We are happy to have you before the committee and will be glad for you to proceed in your own way.

Mr. MEZVINSKY. Thank you, Mr. Chairman.

Mr. Chairman, I am pleased to be here as well as with Congressman Railsback from Illinois. I might point out that both Iowa and the Illinois delegations are very much concerned about the projected expenditure of funds that will amount to over $7 million.

Now the reason that I am here is that the Quad City area would be very severely impacted by this proposed realignment. We are here to represent our area. There is no question about that.

We see that we have had a GAO report and I think it is very important for you to take a look at that report because it is an objective look at whether or not the reorganization makes sense, whether the numbers are justified, and whether or not it is cost-efficient, which is the main concern that we have here.

As far as our area is concerned, the Army's proposal would mean an $18 million impact; it means lost jobs, lost income, lost business. And when you take a look at the Midwest, you see that proportionately we receive less of the defense dollar than any other area.

Mr. SIKES. Off the record.

[Discussion off the record.]

Mr. MEZVINSKY. The GAO report, as I understand, will probably be submitted to the committee by the end of next week.

Mr. SIKES. That is correct.

Mr. MEZVINSKY. Now I recognize that our concerns are broader than just jobs, and the reason we are here is to consider whether the proposal is cost-efficient.

I might say that as I looked at this proposal and as I received the GAO report, I found that basically our concern should be: First, is the defense dollar spent prudently?

Second, is every defense dollar spent as effectively as it can be spent?

Now we have to see whether or not this ADC plan meets the criteria.

The Army claims that the plan is part of a policy of consolidation, that it will save money and that it supposedly will heighten the efficiency in the R. & D. establishment.

Now let me just give you my quick response.

First, I do not think the plan, as far as I am able to view it, represents consolidation. The goal was the placement of all R. & D. facilities under one roof so that research efforts could be dovetailed. But while the entire Rodman Laboratory, which is part of Rock Island Arsenal, is to be moved, we see that one R. & D. function at Watervliet remains in place, Aberdeen is assigned some new responsibilities and Picatinny is slated for some others.

Frankford is scheduled to be closed and its functions are going elsewere.

Now, whether we accept the wisdom of a single integrated concept, that objective which was proposed has been seriously compromised. What we end up with is a makeshift redistribution of assets. And for what?

Will we save money, which is a main concern?

The GAO says that the changes will mean a one-time cost of $86.1 million. Now that is on the debit side.

When we factor out the impact of the Frankford closing, which was discussed, we end up with an annual savings of about $8 million. That gives us an imbalance in the ledger well to the negative side.

For all its studies and all its valuable time, I cannot help but suspect that the Army's cost-cutting efforts could better be spent elsewhere.

Now we should keep another thought in mind; I do not think any of us doubt for a single moment that the Army is going to be back for more than $40 million for this proposed action. Past experience is clear evidence of the fact that when they submit a figure now—as well you know, Mr. Chairman—that is a low side figure. And, when they come back for more, we're faced with "logic" that it is too late to reclaim the first investment and good money goes to bad.

Now there is a final question. What about the efficiency?

It is my feeling that it will not improve efficiency. If this proposal is accepted, what will happen is, we will be constantly shifting and rearranging personnel and equipment.

Total new organizations will have to be set up. What we will be doing is trying to iron out the kinks and patch up the unanticipated details for years to come. We have seen it before in other reorganizations.

Just a few years ago the Army convinced this Congress to shift personnel and responsibilities, instead of away from Rock Island, to Rock Island.

Now the subcommittee is being asked to take away one of the Arsenal's basic functions. It seems to be always stop and start, shift and shift again, shuffle and reshuffle. The opportunity for stabilization never seems to come.

We never get a chance to settle down and begin to operate the kind of efficient way we should. Here we go again.

The Army comes once more with yet another reorganization, one that will be years in the making and years for the realization of any gain.

This time we are being asked to uproot a proven asset.

The Rodman Laboratory—and you will hear testimony it has performed efficiently—it is a vital element of the very backbone of our Nation. Ironically, while we are all talking seriously about the need

of keeping our defenses up to date and second to none, the Army seems somehow determined to throw R. & D., which is basic, into really what I view as disarray for years and years.

Now here is another significant point before we break.

Rock Island Arsenal employees have expertise. They have had long years of experience. They just took a survey. More than half of those that were surveyed said they would not accept transfers which means that the Army would have to employ new people.

The GAO has given us the facts and I think it is very significant. My feeling is that the studies provided by the Army—and Congressman Eilberg points it out as well—they miscalculate and misinform. They grossly exaggerate the gains.

The losses seem to be ignored and past experience and commonsense are persuasive supplements to the GAO's findings.

The last point: The Army's case is tissue-paper thin. We are being asked to trade proven assets and stability for an erratic shot in the dark. We are being asked to gamble with the heart of our system of defense in the name of dubious economies and at the expense of heavy losses.

I am asking the subcommittee on behalf of the delegation, with Congressman Railsback, of Illinois, to send the proposal back to the drawing boards, where it belongs.

Mr. SIKES. You have given us a very able statement. We have been glad to have you before the committee.

Mr. MEZVINSKY. I will submit a statement for the record.

[The statement follows:]

STATEMENT BY CONGRESSMAN MEZVINSKY OF IOWA

Mr. Chairman, I am pleased to have this opportunity to testify before the Military Construction Subcommittee and I thank the members for allowing our Quad City delegation to address a matter of great concern to us.

As you know, the ADC plan would impact the Quad City area very severely. That, of course, is why we are here. We have an important responsibility to represent our community in these proceedings. As the GAO reported, the ADC plan would bring an $18 million impact to the Quad Cities area. That means lost jobs, lost income, and lost business. We in the Midwest have never received a proportional share of the defense dollar. Those few facilities like the Rock Island Arsenal can bring devastating injury when they are eliminated. Many of us feel this plan is the first step in cutting back on the facility and putting it out of business.

Certainly, we are concerned, and rightly so.

But, we recognize that your concerns are much broader ones. We know you want to avoid unemployment and reduced income in any community. Yet the central issue before you is maximum efficiency and effectiveness in the spending of our military dollars. That always has been my goal as well and it is on the basis of effectiveness and efficiency that I challenge the ADC plan today.

As I noted in my letter to you, Mr. Chairman, this is a time when the military budget has been constrained to the point where we can ill afford unwise expenditures. Throughout the budget, one program has to be sacrificed for another, personnel must be cut back, and each agency must tighten its belt. We all recognize the need for economy of effort—that is clear to the Congress, the administration, and the Department of Defense as well. It is just for that reason that we must see to it that each expenditure is prudent and that every defense dollar is spent as effectively as we can. Today, we must seriously consider whether the ADC plan meets those criteria. The ADC plan comes hard on the heels of several previous studies and proposals, notably the Concise and AMARC versions. Each of these has urged the Army to pursue a policy of consolidation, cost-cutting,

and heightened efficiency in the R. & D. establishment. Does the final ADC proposal accomplish those ends?

First, the plan does not achieve consolidation. The goal was the placement of all R. & D. facilities under one roof so that research efforts could be dovetailed. But while the entire Rodman Lab is to be moved, the Watervliet function remains in place. Aberdeen is assigned some new responsibi ities and Picatinny is slated for others. Frankford is scheduled to be closed and its functions distributed elsewhere. Whether we accept the wisdom of the single integrated unit concept or not, that objective has been compromised. What we end up with is a makeshift redistribution of assets. And for what?

Will we save money? The GAO says that the relocations will mean a one-time cost of $86.1 million; that's on the debit side of the ledger. When we factor out the impact of the Frankford closing, we end up with an annual savings of $8.1 million and we see an imba'ance in that ledger well to the negative side. For all its studies, and all its valuable time, and all the consequent upheaval, I can't help but suspect that the Army's cost-cutting efforts could be better spent elsewhere. We should also keep another thought in mind. I don't think any one of us doubts for a single moment that the Army wi'l be back for more than the highly conservative $40 million they have asked us for. Past experience is clear evidence of the artificially low character of such cost estimates. Once we're attracted to those fairy tales, and commit ourselves to them, it is too late to reclaim our investment and good money goes quickly after bad.

There is a final question. Will this plan improve efficiency? It will not. If this proposal is accepted, we will be constantly shifting and rearranging personnel and equipment. Totally new administrative systems and reorganization procedures will have to be set up. We will be ironing out kinks and patching up unanticipated details for years to come.

We've seen this many times before in Army reorganizations. Just a few years ago, the Army convinced the Congress to underwrite personnel and responsibility for shifts to Rock Island. Now, this subcommittee is being asked to dismember one of the Arsenal's basic functions. It is always stop and start, shift and shift again, shuffle and reshuffle. The opportunity for stabilization never seems to come. We never get a chance to settle down and begin to operate efficiently and with some promise of permanence. Here we go again. The Army comes once more with yet another reorganization that will be years in the making, and years from the realization of any gain while another disruptive switch may be right around the corner.

This time, we are being asked to uproot a proven asset. The Rodman Lab has performed smoothly and efficiently. It is a vital element of the very backbone of our Nation's defense as the source of new and better weapons. While we are all ta'king seriously about the need to keep our defenses up to date and second to none, the Army seems determined to throw R. & D. into disarray for years. Rock Island employees with valuable expertise and long years of experience are a national resource that can't be readily replaced. A recent survey showed that more than half of them will not accept transfers. That is just one example of the kind of disruption we are facing here.

GAO has given us the facts. The Army's studies miscalculate and misinform. Gains are grossly exaggerated. Losses are ignored. Past experience and common sense are persuasive supp'ements to the GAO's finding that the Army's case is tissue-paper thin. We are being asked to trade proven assets and valuable stability for a costly and erratic shot in the dark. We are being asked to gamble with the heart of our system of defense in the name of dubious economies well in the future and at the expense of heavy losses today. I strongly urge the members of the subcommittee to send this proposal back to the drawing boards where it belongs.

Mr. SIKES. The subcommittee will stand adjourned until 2 o'clock this afternoon.

[Afternoon session.]

Mr. SIKES. The committee will come to order.

At the time that we recessed this morning, we were prepared to hear Hon. Tom Railsback, our distinguished colleague from Illinois.

Welcome to the Subcommittee on Military Construction. We are happy to have your comments.

Statement of Hon. Tom Railsback

Mr. Railsback. Mr. Chairman, I am very pleased to appear before you, as well as before all the members of your distinguished subcommittee.

Let me say at the outset that I feel I have been a good supporter of defense, so I am not at all sheepish about appearing here. I also want to say that I have a very high personal regard for Gen. Ben Lewis, who was a key figure in the formulation of the AMARC report. Having said that, I want to make it very clear that I disagree with General Lewis and have told him so in no uncertain terms.

I would like to have my statement included as part of the record.

Mr. Sikes. It will be included in its entirety and you may comment as you wish.

[The statement follows:]

Statement by the Honorable Tom Railsback

Mr. Chairman, members of the subcommittee, I appreciate the opportunity to appear before you today on behalf of my constituents and other concerned citizens of our country.

As you know, the Army intends to implement a plan to establish an Armament Development Center and an Armament Logistics Command (ADC/ALC). This plan would affect several military installations, including the Rock Island Arsenal in the 19th Congressional District of Illinois, which I represent.

This realinement would affect a total of 48 military and 1,084 civilian personnel at Rock Island Arsenal. Of that, 12 military and 722 civilians would be affected by the planned transfer of the Rodman Laboratory from Rock Island Arsenal to Picatinny Arsenal, N.J., which is to be headquarters for the Armament Development Center.

Today, you are considering a request from the Department of the Army that the Army be allowed to reprogram $7,363,000 to finance improvements and new construction at Picatinny Arsenal to house the armament mission to be transferred from Frankford Arsenal, Pa. This move is part of the ADC/ALC realinement plan.

I respectfully ask that the subcommittee deny the Army's request to reprogram the funds and also that the entire realinement plan be halted until the Army's justification for the realinement can be reevaluated. I believe I have excellent reasons for making these requests of you.

I have spent a good deal of time and effort over the past 2 years studying this matter, as have other members of the Illinois and Iowa delegations and many concerned citizens. As a result of this study, I believe the plan is not entirely wise and that some of the Army's justification is not altogether correct.

Along with others, I asked the General Accounting Office to investigate the Army's plan. The GAO did so and came up with several discrepanices. I am submitting to you copies of the draft GAO audit—attached as appendix A—and will forward copies of the GAO's final report, which will have some minor revisions, as soon as I receive it. But allow me to give you some examples:

The Army initially estimated annual operating costs would decrease by about $42 million as a result of the realinement. That estimate since has been decreased by the Army to $37 million annually. However, because the Army included workload reductions not caused by the realinement in its savings estimates, the GAO determined that operating costs would decrease only by about $31.2 million—revised figure, see p. 2 of GAO for original figure—as a result of the realinement.

Indications are that the savings really are much less than even the $31.2 million. GAO notes that the Army in 1974—well before the ADC/ALC plan was devised—planned definitely to close Frankford Arsenal even without realinement of the armament community. The cost savings for the Frankford closure was estimated at $20.5 million GAO p. 3. The Army now is including the savings for the Frankford closure in its total estimate of realinement savings, even though the decision to close Frankford was completely separate from the ADC/ALC decision. Allow me to quote the GAO p. 4:

"Since Frankford Arsenal will close even if the armament community is not realined, we believe the annual recurring cost reductions attributed to the arsenal closure should not be included as part of the estimate for the realinement action. Because Frankford Arsenal is an integral part of the armament community, it is impossible to identify and isolate operating cost reductions and one-time costs which are related to the closure and those related to the realinement action and consequently GAO was unable to exclude them from the cost estimates."

While GAO was unable to separate the savings from the Frankford closure and those from the realinement, the point is GAO says they should be separated.

Still another example of discrepancy is GAO's finding that the economic impact of the realinement on various locations will be much greater than estimated by the Army in its justification for the plan. For example, the Army estimated the realinement would increase the Rock Island, Ill. area payroll by some $588,-000. The GAO, however, determined the payroll would be decreased by about $19 million (GAO, p 3).

Discrepancies like these cast doubt on the Army's entire justification for this major realinement.

Besides the $7.3 million the Army wants to reprogram now, Army plans are to spend another $33 million at least on construction necessary for the realinement. This plan must be stopped and reevaluated before one more dollar of the taxpayers' money is spent on a plan that well may prove more costly than it is economical.

As concerned as I am about the questionable economics of the Army's plan, I am just as apprehensive about the recent trend to relocate many of our defense installations nearer and nearer our coastlines. I believe the Midwest has been, and is bearing, more than its share of defense installation losses.

Statistics prepared for me by the Department of Defense show that the Midwestern military and civilian defense population has been reduced between the years of 1965 and 1975 by 41,088, a 12.8 percent reduction. The defense population was reduced nationwide by only 8.8 percent during the same period. Illinois alone suffered a 17.8 percent defense population reduction during that 10-year period.

Contrast that 12.8 percent defense population reduction in the Midwest with a mere 2.1 percent reduction in our Western States and you can see vividly what I mean when I say the defense population distribution has become inequitable.

Let's look at it another way. An article from the National Journal (June 26, 1976, No. 26) indicates that the federal government has been spending $620 per capita in the West on defense. That is nearly triple the $210 per capita the Government has spent on defense in the Midwest. Further, the South gets $412 per capita in defense dollars. The Northeast receives only $309 per capita, but the Midwest definitely gets far less in defense spending than any other region in the country.

I would like to make one more point. When military services, cabinet departments and various agencies practice backdoor spending through reprograming requests, what happens to the Congress' constitutional role as policymaker? When we in the Congress appropriate funds, we have specific purposes in mind for those funds. Excessive reprograming well could thwart those purposes.

For the reasons I have just outlined, I propose rejection of the Army's request to reprogram $7.3 million for new construction at Picatinny. What's more, I propose that implementation of the ADC/ALC plan be halted entirely by whatever action is necessary until the House Armed Services Committee and this Military Construction Subcommittee of the House Appropriations Committee have completed a thorough investigation and reevaluation of the Army's plans.

I would like you to be satisfied, as a result of an investigation, that responsible persons involved in this matter are assured the Army's ADC/ALC plans are justified from the standpoint of employees affected, loss of payroll and Army's one-time and depreciated costs. And equally important, we must be assured that these plans will not be detrimental to the defense posture of our nation.

Thank you.

U.S. GENERAL ACCOUNTING OFFICE,
Washington, D.C., June 4, 1976.

Hon. THOMAS F. RAILSBACK,
House of Representatives.

DEAR MR. RAILSBACK: On May 25, 1976, we briefed you and Representatives from the other congressional offices on the preliminary results of our review on

the Army plans to establish an armament development center and an armament logistics command.

As agreed, we are sending you the preliminary results presented during the briefing. The information is subject to revision and therefore, we request that safeguards be imposed to prevent the premature release of the information.

We are currently preparing our final report and expect to issue the report before the end of the month.

Sincerely yours,

F. J. SHAFER, *Director.*

Enclosure.

ARMY PLANS TO REALINE THE ARMAMENT COMMUNITY

DIGEST

On December 2, 1975, the Secretary of the Army announced the formation of the U.S. Army Armament Development Center and the Armament Logistics Command.

The realinement plan provides for establishing the Development Center Headquarters and its large caliber and small caliber weapons systems laboratories at Picatinny Arsenal, N.J.; the development center ballistics research and chemical systems laboratories at Aberdeen Proving Ground, Md.; and the Logistics Command Headquarters at Rock Island, Ill.

As a result of this realinement:

All missions of the Rodman Laboratory, which is located at Rock Island, would be transferred to elements of the development center and the logistics command.

Most missions of the Edgewood Arsenal would transfer in place to the development center.

Some logistics functions of the Watervliet Arsenal would transfer to the Logistics Command Headquarters site at Rock Island.

Most missions of the Picatinny Arsenal would transfer in place to the development center.

All missions of the Frankford Arsenal would transfer to elements of the development center and the logistics command.

The realinement plan provides for transferring 3,242 military and civilian positions and eliminating 2,647 military and civilian positions.

COST REDUCTIONS

The Army estimated that the annual operating costs would decrease by about $42 million after completion of the realinement. The reduction was based primarily on the number of positions being eliminated. GAO determined that the operating costs would decrease by about $28.7 million as a result of the realinement. An additional cost reduction of about $6.3 million would occur because of workload reductions not related to the realinement.

ONE-TIME COSTS

The Army estimated that the one-time costs for the realinement would be about $86 million. The cost estimates were based on relocating employees and equipment, altering existing facilities, and constructing new facilities. GAO determined that the one-time costs for the realinement as contained in the Army study would be about $86.1 million. Additional one-time costs of about $813,600 would be incurred to relocate and separate employees because of the workload reductions not related to the realinement.

Since the study, the Army has changed several construction projects and as a result, the Army's latest estimate for total one-time costs is estimated to be about $75 million.

COST AVOIDANCES

The Army estimated that the realinement would result in construction cost avoidances of about $9.6 million. GAO is obtaining information on the cost avoidance projects.

COMMUNITY IMPACT

The economic impact of the realinement on the various geographical locations affected by the action will be much greater than the Army estimated. For

example, the Army estimated that the realinement would increase the Rock Island area payroll by about $588,000. GAO estimated that payroll would decrease by about $19 million.

ENVIRONMENTAL IMPACT

The environmental impact assessments were prepared in accordance with applicable Army regulations. The Army concluded that the realinement was not major and would not have a significant effect on the environment. Although the U.S. Environmental Protection Agency identified several factors that should have been addressed in the assessments, the Agency agreed that an environmental impact statement did not need to be filed.

FRANKFORD ARSENAL CLOSURE

In November 1974 the Secretary of Defense announced plans to close the Frankford Arsenal. Implementation of the announced closure plan for the arsenal was superseded by the announcement of the realinement of the armament community. If the Frankford Arsenal closure plan would have been implemented, it would have resulted in annual operating cost reductions of $20.5 million and in one-time costs of about $33.6 million.

Because Frankford Arsenal is an integral part of the armament community being realined, the costs relating to the Frankford Arsenal closure are also included as part of the estimates for the armament community realinement action.

Since Frankford Arsenal will close even if the armament community is not realined, we believe the annual recurring cost reductions attributed to the arsenal closure should not be included as part of the estimate for the realinement action. Because Frankford Arsenal is an integral part of the armament community, it is impossible to identify and isolate operating cost reductions and one-time costs which are related to the closure and those related to the realinement action and consequently GAO was unable to exclude them from the cost estimates.

Mr. RAILSBACK. I would like to give you my layman's feelings after having sat with my friend, Ed Mezvinsky, through 1½ to 2 years of various public hearings and other informal briefings.

After attending those hearings and talking with some very top level military people whose names I do not feel at liberty to mention, I think we would be remiss if I did not state my sincere belief that perhaps we might be making a very serious mistake in taking the Rodman Laboratory from a production facility. A belief has developed during the past 5 or 6 years that it is desirable, where the production facility exists, to have the research facility go hand-in-glove with that production facility. In short, this is a different kind of integrated concept.

As I have listened to all the military experts, and talked with some who probably would not want their names mentioned, the point has emerged that we might be losing something if we take the Rodman Laboratory from the Rock Island Arsenal. In addition, you will hear from some of the employees who are, I believe, very dedicated people, and who will perhaps go into more detail.

I think there are obviously other losses, including those Ed Mezvinsky has mentioned. There are going to be a number of people who will turn the request for transfer to Picatinny. These are people who have gained expert knowledge over a long period of time and, with the transfer, that expertise will be lost.

I understand that before I arrived this committee also questioned the Army closely about the value of such a realinement, and about the fact that it was perhaps really a command problem.

Mr. SIKES. That is correct; the committee has not concluded its

questioning because we wanted to give the Members of Congress who are here with us, not members of the committee, an opportunity to be heard and not tie you down.

I know that all of you have other things to do. We will have other questions.

Mr. RAILSBACK. If the committee would like to investigate, Ed and I would welcome your coming. Along with the others I asked the General Accounting Office to investigate the Army's plan. The GAO did so and came up with several discrepancies which bother us a great deal. I am submitting to you copies of the draft GAO audit attached as appendix A to my statement, along with copies of the GAO report. Let me give you some of the examples of alleged discrepancies.

The Army initially estimated annual operating costs would decrease by about $42 million as a result of the realinement. The Army has since decreased that estimate to $37 million annually. However, because the Army included workload reductions not caused by the realinement in its savings estimates, the GAO determined operating costs would decrease by only $31.2 million as a result of that realinement. Indications are that the savings really are much less than even the $31.2 million. GAO notes that in 1974, well before the ADC–ALC plan was devised, the Army definitely planned to close the Frankford Arsenal, even without a realinement of the armament community. The cost savings for the Frankford closure were estimated at $25.5 million. The Army is now including the savings for the Frankford closure in its total estimate of realinement savings, even though the decision to close Frankford was completely separate from the ADC–ALC decision.

Allow me to quote the GAO:

> Since Frankford Arsenal will close even if the armament community is not realigned, we believe the annual recurring cost reduction attributed to the arsenal closure should not be included as part of the estimate for the realignment action. Because Frankford Arsenal is an integral part of the armament community, it is impossible to identify and isolate operating cost reductions and one-time costs which are related to the closure and those related to the realignment action and consequently GAO was unable to exclude them from the cost estimates.

While GAO was unable to separate the savings of the Frankford closure from those of the realinement, the point remains that GAO advises their separation.

Still another example of discrepancy is GAO's finding that the economic impact of the realinement on various locations will be much greater than estimated by the Army in its justification for the plan.

Mr. MURTHA. The $31.2 million includes the savings in the closing of the Frankford Arsenal?

General WRAY. That is correct. The overall realinement action.

Mr. MURTHA. How much of the $31.2 million is involved in the Frankford closure?

Mr. RAILSBACK. $20 million.

General WRAY. I believe GAO has indicated it is really impossible to divorce all these costs.

Mr. RAILSBACK. The point I am stating is the decision to close Frankford was made before the ADC/ALC plan was submitted. I am just reiterating that point. In other words, Frankford was a separate decision. Despite the $7.3 million the Army wants to reprogram now,

Army plans are to spend at least another $33 million on construction necessary for realinement. I believe this plan has to be stopped.

In addition I want to state that I attended public hearings where we were assured that the economic impact on our community—the quad-city area—would be considered. GAO addressed this issue as follows: The Army estimated the realinement would increase the Rock Island, Ill. payroll by some $588,000. In other words, Army payroll would receive an increase of $588,000. The GAO, however, determined the payroll would actually be decreased by about $19 million. There is about a $20 million discrepancy between the GAO findings and those figures given to us by the Army. That bothers us a great deal.

Let me close by saying that I asked for a report describing the effect of all these closings on the Midwest, and I find that we are being treated with disproportionate harshness. I have elaborated upon this issue in my above remarks, so I will not belabor it further. It is my hope that this committee will agree that perhaps the Army should go through the regular appropriation process rather than try to reprogram funds for something as controversial as this. I have really sincere concerns over what the Army has done in this case.

Thank you.

Mr. SIKES. Thank you very much for a very interesting statement.

If there are no questions, we will hear from our distinguished colleague from Maryland, Mr. Robert E. Bauman.

Mr. Bauman, let me say aside from this hearing that I must express a great deal of respect for the dedication and hard work that you show on the floor of the House of Representatives. I feel that you render a service for all of us.

STATEMENT OF HON. ROBERT E. BAUMAN

Mr. BAUMAN. Thank you, Mr. Chairman. Coming from the distinguished Chairman of this committee, I appreciate the comment and I thank him for it. With your permission, I will insert my prepared statement at this point and follow it with some brief remarks.

[The prepared statement of Mr. Bauman follows:]

TESTIMONY BY HON. ROBERT E. BAUMAN

Mr. Chairman and members of the committee, I appreciate the opportunity to appear before you and offer my comments on a matter which is of extreme importance not only to my district but to our Nation's defense capability.

The Army has requested the subcommittee to approve its request for the reprograming of $7.36 million which were contained in last year's appropriations bill. These funds are to be used to upgrade, enlarge, and construct facilities at Picatinny Arsenal in New Jersey. The Army has stated that it is imperative to gain approval for the transfer of these funds in order that the consolidation of the recently created Armament Development Center headquarters can proceed on schedule.

As you are aware, the ADC activities will be directed from Picatinny and will be composed of various elements which had previously been located at Edgewood Arsenal in Aberdeen, Md., at Rodman Laboratory in Rock Island, Ill. and at Frankford Arsenal in Philadelphia, Pa. The Ballistics Research and Chemical Systems Laboratories will remain at Aberdeen Proving Ground and the Logistics Command Headquarters is to be located at Rock Island.

This consolidation was deemed necessary by the Army in order to bring about a long term reduction with the costs involved in the operation of the various armament elements. The concern which has arisen in my mind and in the minds

of those who will be affected by the proposed consolidation is whether or not the Army has accurately projected the cost savings which will be involved in the transfer of the various elements.

We have been told that the construction costs associated with the move will be $33 million. Recent preliminary indications by the General Accounting Office, however, indicate that the Army has quite possibly been mistaken in its cost estimates and that the savings involved in this matter have not been correctly assessed. The central question which faces the committee is whether or not the $33 million cost figure is indeed accurate or if the committee is to be faced with a continuous stream of requests for more and more money to complete the armament transfer.

I certainly do not believe that such a huge reorganization can be justified unless the cost-benefit ratio is of such unquestionable magnitude that the benefits of such a move would be apparent to all concerned. This has not been the case to date.

I believe that the committee, in light of the conflicting facts which have surfaced and in view of the questions which have remained unanswered, should postpone approval of any fund reprograming request and the armament consolidation as well, for 1 year or until a further, more extensive study has been made on the cost factors involved.

Among the considerations which should be weighed by the committee is whether an environmental impact statement should have been filed by the Army. The postponement I am proposing could be used to prepare such a study and take a much closer look at the proposal. If the Army has indeed been mistaken in compiling its cost figures, then I think the possibility exists that the decision not to develop an EIS could also be an error.

This proposal and the effect which it will have on numerous individuals in my district and elsewhere and on the country's defense posture, is too important to be undertaken lightly or without an adequate investigation of all the factors involved.

Mr. BAUMAN. I have lived with this AMARC study, as have most of us, for more than a year, and I must confess to you that it was explained to me last December, in a briefing by Army officials, that there was no question whatever at that time that this consolidation was going to result in a magnificent savings of taxpayers' dollars, provide no major dislocation in any of the areas affected, and that it was the optimum conclusion which one would reach after a thorough review of the study. I was told that the AMARC study and its conclusions would provide the best cost savings.

I was not told of any need to reprogram over $7 million, nor was I aware, of course, of the GAO audit which our colleague from Illinois has since quite wisely requested and received, but I would suggest to the committee that the fundamental role that you have as the agents of the Congress is indeed to, on a continuing basis, oversee all appropriations in the military and I think it is felicitous that only within the last hour the House has vindicated the O'Neill amendment which says for the first time in a very strong fashion that no consolidations of this type may take place without thorough congressional scrutiny.

I have doubts that reprograming is the right way to handle these budget matters. I rather think that a presentation of the annual budget, instead of switching around funds, together with a full justification by the military, is a much better way.

It seems to me that to some degree this funding matter is going around the committee, even though the Army must come and ask for this authority. I believe that the Army should have to fully justify any of these changes in the usual hearing process.

You ask why the gentleman is here and not on the floor of the House as he usually is. In this case, I have a very personal problem and that

is that roughly 500 of my constituents are being impacted by this particular proposal. Nine military and 502 civilian jobs are affected.

Part of this consolidation requires the in-place transfer of some personnel to the new command at Edgewood Arsenal in Maryland. However, there will also be roughly 400 people transferred from the base and I would echo what the gentleman from Illinois has said; we are finding now that the personnel department at Aberdeen and Edgewood have received notice that a lot of highly skilled people are not going to transfer. They are going to retire if near retirement age, or will quit altogether and the loss of their ability and the subsequent increase in the cost of training new people will have to be borne by the already overburdened taxpayers.

I would hope, since the question has been raised about the overall cost effectiveness of this matter in a very concrete way in the GAO report, that your committee might decide to turn down this reprograming request and instead either under your own auspices in an in-house study or through the GAO, seek a full justification of the AMARC study and its recommendations.

I have talked with a number of military officials privately who were not willing to and should not publicly state these opinions, but, who have conceded to me early in this study that the optimum cost saving location was at Aberdeen Proving Ground; that there was no question that the long-term annual operations costs would go down considerably if the new ADC armaments development center were located at Aberdeen.

Apparently, the decision was not made solely on that basis, but on the basis of the economic impact it would also have on Picatinny. That because of previous actions a reduction at Picatinny would be too much of a blow for one area of the country. I cannot argue with that. That is to some degree true.

However, if the Army is going to justify that for one area, it ought to apply to other areas, including Maryland, and it ought to be made a large factor in any of these decisions.

If such a decision is to be made on cost alone, I think we can accept to some degree—perhaps all Army figures are suspect in these hearings—the argument that the annual opertaing cost would be reduced in Aberdeen; what I am saying to the committee is, the question, despite the final decision by the Army, ought to be reopened on the basis of what is essentially a new Army request for reprograming of funds, and I would hope the committee would delay the proposed consolidation—if not for a specific time such as a year, at least for the period of time the committee in its wisdom judges is needed to really justify the action, in order to get all the facts and not allow any of this new information to dribble in at a later date not only to the detriment of my constituents, but probably to the detriment of the proper functioning of the Army.

ECONOMIC IMPACT

Mr. MURTHA. I want to clarify two points.

You say you anticipate a $588,000 increase in payroll. Then it turned out to be a $19 million deficit. I didn't understand what those two figures mean.

Mr. RAILSBACK. It would perhaps be the best procedure to further enlighten members of the committee by calling on GAO—GAO is here today.

I think the discrepancy in findings can be explained by GAO's using a different formula, or a different measuring device from the Army, to determine economic impact. As it turns out, there is a $20 million difference between the GAO's determination of the economic impact as a result of the transfer and the figures prepared for us by the Army.

Mr. MURTHA. Does anyone know about the total impact?

Mr. GALE. We have talked to the GAO. Nineteen million is an artificial number. Let me explain—when you compute for the purposes of decisionmaking documentation, the impact on the community and the transfer of personnel, you have to, by the rules, deal with spaces. Whether these spaces are in fact filled with personnel, or whether there are vacancies, or whether there is even a plan to fill these vacancies, it has to go on the basis of total authorizations.

We have explained to the GAO and it has been accepted, that when you go in accordance with the National Environmental Policy Act and compute the impact on the community, you use what is called—"The actual people onboard at the time the action starts," and those expected onboard when the action is completed.

If you look at the onboard when its starts and the onboard when it is completed, there is a slight increase and the GAO has given credit in the revised report to the fact that the Army used the correct NEPA procedure in computing the environmental impact.

Mr. RAILSBACK. That is not right; I am sorry to interrupt, but he directed the question to me. The Army used 1975 figures, allowing a sizeable discrepancy.

I believe it would only be right for the GAO to be permitted to speak for itself, rather than to have someone from the Army attempt to characterize what the GAO has given us.

Mr. MEZVINSKY. There was, for instance, a discrepancy of about 6 months regarding the cut off date. The report will give you the answer.

General WRAY. The procedures were different. We followed the procedures that must be followed using the NEPA and GAO used a procedure which involved the use of authorizations or spaces rather than the actual people who are onboard.

Mr. RAILSBACK. But it is my hope GAO will be permitted to speak for itself.

Mr. MURTHA. General, I don't understand how one figure could show an increase in salary and the other can show a decrease no matter what figures you used. It seems there would be a difference in the increase but not a decrease of a significant amount like that.

General WRAY. What we were saying is that the figures we used were the number of people actually on board at the beginning, which was smaller than the number of people who will be on board at Rock Island when this action is completed and all of the spaces authorized are filled; that there actually would be a slight increase in numbers of people——

Mr. MURTHA. How would the GAO come up with a figure of $19 million?

General WRAY. Because they used a different procedure. They used the authorized number of people at this time and not the actual number of people on board.

Mr. MURTHA. Are you saying there are actually going to be more people—not worrying about the authorization—are you saying actually there are going to be more people at this place than there were before?

Mr. GALE. In terms of actual numbers, yes, sir.

Mr. MURTHA. Is that the way you see it? You will ask for more people out there than you had before?

Mr. RAILSBACK. I sincerely hope so.

General WRAY. This is by quirk of the fact that we had many people less on board than were actually authorized to be on hand at that time.

Mr. MEZVINSKY. There is also a problem with the dates the Army used to arrive at employment figures. They took a date, say January, and used the employment level at that time to compute community impact. The Army actually should have used a June 30th date as they did for the rest of their study and when there were more employed at the Arsenal than had been the case in January. But when they used the January numbers—and this was GAO's view, the Army made it appear that there would be less impact than would really be the case—lower January employment figures, compared them to projected strength after the proposed realinement, and—after the pluses and minuses—showed only a slight impact on the Quad Cities area. However, had the Army done as GAO auditors suggest it should have, and used the more accurate—and higher—June employment figures, the computations on impact would have had greatly differing results, showing a severe economic impact on the area. That is one of the reasons for a discrepancy. About a 6 month's difference in total employment rate.

Mr. MURTHA. Mr. Chairman, I would request our staff check both figures and give us a report on which one is more accurate.

Mr. SIKES. That will be done.

Mr. MURTHA. Mr. Bauman said also the initial report he got seemed to indicate the impact was much less than it turned out to be in the end. Could you give us more details on that?

Mr. BAUMAN. You have to understand in the case of Aberdeen and Edgewood we are dealing with 15,000 personnel and you are talking about an impact of roughly 500. It is far different than at Rock Island where the numbers are something like 6,000—6,000 employees, and 1,000 affected by the transfer. We are finding the predicted rate of transfers is not being followed. The affected personnel were forced into a decision about 2 weeks ago. Many of these people are going to get out.

I understand through the grapevine at Edgewood that that is one of the purposes of the action, to reduce the overall number of employees. When these transfers occur, people drop out of Defense Department employment and that is what they seek. It is a rather crude and cruel way to treat employees, but that is what happens.

Mr. MURTHA. Where was the transfer to?

Mr. BAUMAN. I understand most of them would be going to Pica-

tinny Arsenal in New Jersey and a certain number would be retained at Edgewood.

Mr. McEwen. When you were briefed by the Army on the proposed consolidation and its effects on Aberdeen Proving Ground, were you advised of the costs involved and, if so, did those costs include a mention of the need for reprograming funds?

Mr. Bauman. I would say to the gentleman from New York I was not specifically informed on any subsequent request that would have to be made for reprograming funds. I understand this request came to the subcommittee on June 11 in a letter from Terence E. McClary, Assistant Secretary of Defense. Nor was I informed about that particular request at the time it was made though I certainly would have had an interest in it.

I learned about it through my colleague from Illinois, Mr. Railsback.

The Maryland delegation had been requested to comment on this entire AMARC study under the new policy which Secretary Callaway had instituted. We went to great pains to produce about a 40-page response with a great deal of detailed cost analysis. Had we known about this reprograming request as a factor, I am sure it might have made some difference in the overall congressional delegation response which was made. I certainly think if we are going to be asked for responses, we ought to be given all relevant information on the costs involved.

If it can be justified that is one thing, but if we are to be presented with a case on the part of the Army and they then come in and change it a few months later, then the question arises whether the basis of the study is valid.

Statement of Mr. Verlin Baumgarth

Mr. Sikes. We now have with us Mr. Verlin Baumgarth, president, National Association of Government Employees at Rock Island.

Mr. Baumgarth, would you proceed?

Mr. Baumgarth. Mr. Chairman, I am an electrical engineer employed in the Rodman Laboratory at the Rock Island Arsenal. I speak as a representative of professional employees local R7–68 of the National Association of Government Employees.

Our local represents approximately 600 professional employees. That is, the engineers, lawyers, mathematicians, and the scientists both at Rock Island Arsenal and Headquarters, Armaments Command, which are both located at Rock Island, Ill.

Our local is speaking here in loyal opposition to the Army's request for tax dollars to support a planned reorganization and relocation that looms as a monumental mistake for the Army, for the country, and for the taxpayers. This planned action is a monumental mistake because, if carried out, it will effectively destroy a large segment of the Army's R. & D. expertise in gun systems that is not replaceable in private industry. It will also weaken the production base for conventional weapons. Both of these undesirable accomplishments will cost the taxpayers untold millions of dollars instead of producing the questionable savings that have been officially claimed by the Army in its case study and justification folder.

How did such an impending calamity come about? I guess the answer would be that it took a lot of planning.

First, a little bit of history: All of this business started in December 1973 when a relatively new Under Secretary of the Army—who has since been deposed for being on two payrolls—chartered a group of industrialists to review the Army's materiel acquisition process and recommend sweeping changes.

This culminated in recommendations to dissolve the Army Armament Command, which was formed only 5 months previous to this directive from the Under Secretary of the Army.

By the way, this was only 5 months after guns and bullets had finally been brought together through the merger of the Army Weapons Command at Rock Island, Ill., with the Army Munitions Command from Dover, N.J., to form the Army Armament Command at Rock Island. That was a sensible consolidation of all research, development, production, supply, and maintenance of gun systems under one commander.

Anyhow, this AMARC—Army Materiel Acquisition and Review Committee—committee of industrialists immediately made recommendations for dissolving the armament command. In its place, they proposed creation of a new armaments development center—ADC—at a single location and formation of an armaments logistic center—ALC. These recommendations were assiduously followed by the AMC—Army Materiel Command—Committee on Armament, which was more commonly called the Lewis committee. The outgrowth of their study was an Army decision to build an armament development center at three separate locations instead of at a single location. The net effect of this decision is to move the Armament Research and Development functions from Rock Island, Ill. and from Philadelphia, Pa., to Dover, N.J. This includes munitions functions that were just moved from New Jersey to Illinois barely 3 years ago. Also included are small arms functions that were moved from Springfield Armory in Massachusetts to Rock Island just 9 years ago.

The many serious ramifications of this proposed move are the basis for our appearance here today.

SOME OBSERVATIONS ON CHANGE AND REORGANIZATION

We do not oppose change if it will indeed improve the quality of the product or if it will indeed reduce armament costs without having an insidious effect on quality. But too often, random geographical relocations and organizational changes seem to be a refreshing escape for those decisionmakers who aren't able to fathom the true nature of the problem. We know the Army must get leaner, but the fat should come out of the layers of management between the Secretary of the Army and the people who actually do the work, as recommended by the AMARC study. We fail to see how the Army is going to get leaner by a change that doubles the number of headquarters staffs and doubles the number of two-star generals.

Senator Stevenson had some pertinent observations on Army reorganizations in his statement of December 6, 1974, which are good food for thought here. He stated and I quote:

Of particular concern to me is a practice I have seen before—rapid fire Army reorganizations which on their face appear to be inconsistent and often wasteful. Fifth Army Headquarters was moved to Fort Sheridan in 1969 at a cost of tens of millions of dollars, only to be moved to Texas just 2 years later at even greater cost. An Army veterinary school brought in to fill the empty fort 2 years ago was just moved out again last month. Weapons R. & D. facilities, like Rodman laboratories, were brought under the new Armament Command headquartered at Rock Island in a massive $20 million reorganization as recently as September of 1973. Yet within 3 months, the AMARC Task Force was brought into being to study how to reorganize the Armament Command—and is now recommending the phaseout of Rodman Laboratories.

I fear the record is replete with examples of reorganizations which are directed at undoing and reversing earlier reorganizations.

The change that deeply concerns us here today is the Army's controversial plan for moving the Armaments Research and Development people organizationally and geographically across the country away from the production, supply, and maintenance people.

OBSERVATIONS ON THE CSJF AND GAO AUDIT

The Army's case study and justification folder No. 321 is an outstanding example of obfuscation. Even the GAO had difficulty in trying to correlate its contents and to decipher its arithmetic. The Army seemed compelled to advertise annual cost savings in order to sell their plan for dissolution of our existing gun system R. & D. capability. However, the GAO did confirm the fact that a significant portion of the Army's claimed savings were indeed fictitious even when using the underlying assumptions that the Army had postulated. The crux of the matter is that many of the underlying assumptions on which the audited costs were based are still highly suspect. Unfortunately, the GAO people have taken the position that they do not have the expertise to challenge the basic assumptions that were made by some of the Army's starry-eyed planners and decisionmakers who seem divorced from reality.

In particular, the postulated number and types of people that will be needed in the ADC and ALC to perform the work that is now being done simply are not adequate. This is very apparent from the struggles that are now going on among those who are trying to construct realistic tables of distribution and allowances to accomplish the mission.

Another fallacy is that it simply isn't possible to replace $36.7 million worth of low-overhead in-house work per year with only $7 million worth of high-overhead contractual effort.

A third fallacy is that it isn't possible to construct the necessary ADC facilities at Picatinny for only $40 million when the necessary small arms test ranges alone will cost between $25 million and $33 million.

A fourth fallacy is that the case study and justification folder does not put realistic costs on the loss of expertise that will surely ensue. We will lose many hundreds of man-years of expertise that have been developed over long periods of expensive on-the-job training, which somehow must be replaced. During this replacement training process, productivity will be crippled, many expensive mistakes will be made needlessly, and the wheel will inadvertently be reinvented many times again.

A fifth fallacy is that the case study and justification folder does not address the unnecessary but inevitable rise in production costs of gun systems that will ensue because of the destruction of the close working relationship that currently exists between the experienced engineers and scientists who develop the hardware and the people with the skills to produce it. The cost of this fact of life alone could overshadow all of the savings that have been advertised for the Armament Development Center.

I say this because the production costs are many times the research and development costs as I am sure you gentlemen know.

I would like to make some further observations.

In reality, the Army's plan to separate the existing research and development community from the existing production and logistic community will destroy much of the conventional armaments research and development expertise that currently exists. This will most certainly happen because most of the experienced armament systems and fire control people from Rock Island and Frankford Arsenals simply are not going to move to New Jersey because they cannot afford the heavy personal and financial sacrifices. The consequence is that the new organization will not be able to develop the weapons that are expected of it without many needless mistakes that will cost a great deal of time and money to correct.

Our personnel surveys and actual experience with other mission transfers over the past 9 years indicate that only about 10 percent of the people will actually transfer with the function when moving day actually comes.

The problems that exist with the present R. & D. organizations are traceable to some poor management personnel for which we make no apologies. However, these problems are correctable by the simple expedient of replacing those managers and directors whose engineering and managerial misjudgments have created the problems that the Army is proposing to correct by tearing down the existing house without due regard for the consequences.

The Army is administering a serious—if not potentially fatal—blow to its ability to develop the conventional weapons that will be vitally needed in any future conflict. This cannot be measured in dollars alone but more importantly in the lives of our sons, such as happened with the industry-developed M–16 rifle in Vietnam.

This fact of life and death was totally ignored in the Army's case study justification folder. Also, we should have learned that exotic weaponry did not win in Vietnam and that we must reemphasize conventional weaponry for the future.

The existing facilities at Picatinny aren't nearly as good as the estimators had been led to believe. While Picatinny does have three or four good modern buildings that are already fully occupied, most of the so-called available space for the ADC consists of small clay tile structures with corrugated asbestos or metal roofs and with industrial type steel sashes. Most of these building are old, in poor repair, poorly insulated, and widely scattered. Most of the so-called unique facilities that were claimed for Picatinny are in reality outmoded and not suitable or not required for modern laboratory operations.

I believe we all realize that the Army is reorganizing some of its other commodity commands into development centers and logistic

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centers. For example, the Missile Command at Huntsville, Ala., the Tank Automotive Command at Warren, Mich., et cetera. Those reorganizations may appear somewhat similar, but one crucial difference exists. Those reorganizations are, for the most part, being carried out in the same geographical location without a serious loss of expertise, without the need for a $40 million to $100 million construction program, and without seriously impairing their ability to revert to some other organization when they discover this one doesn't work.

Incidentally, the word we are getting from the Tank Automotive Command is that their reorganization isn't working, even where the two new organizations are collocated on the same site as the old one.

With all due respect to the many good people who have worked on the planning and implementation of this particular Armament Development Center, the final product is still an expensive abortion. The single headquarters staff of the Armament Command is being replaced by two headquarters staffs—one for the ADC and one for the ALC—each to be headed by a major general. The exaggerated benefits of the Army's plan have been widely proclaimed and its shortcomings have been swept under the official party line rug with the comment—"Don't rock the boat now. All of these problems will be worked out later." What that really means is that the costs are expected to escalate beyond current estimates to make it work and that Congress is expected to provide the increases. Of course, another reorganization may soon become necessary to correct the problems that this reorganization created.

Some unknown philosopher once said, "Those who refuse to learn from history, are doomed to repeat it." The Navy went through a stage of divided responsibilty for its products prior to World War II. Perhaps we could still profit from Admiral Rickover's comments on that situation, which were published in the April 1975 issue of the Saturday Evening Post. And I quote: "When I came to Washington prior to World War II, my job was to develop and supply electrical equipment for the fleet. I found that one man was in charge of design, another took care of production, a third handled maintenance, while a fourth dealt with fiscal matters. This was the way the entire Bureau operated. But it didn't make sense to me. Design problems showed up in production, production errors showed up in maintenance, and financial matters reached into all areas. I changed the system. I made one man responsible for all aspects of his piece of equipment—for design, production, maintenance, and contracts. If anything went wrong, I knew exactly where to look. I run my organization today on the same principle. Our nuclear ships have to work. We have developed the technical knowledge to see that they do. We know that our responsibility extends for the life of the ship."

Admiral Rickover's principle of life-of-the-system responsibility under one man seems appropriate for our thoughtful consideration here today.

COMMENTS ON ARMY TESTIMONY

I would like to now comment on some of the items raised by the Army this morning. If I could briefly recall slide No. 15, if that is

possible, at this time—while he is locating that, perhaps I could address another item or two.

In Mr. Gale's statement this morning I believe he said there was going to be a net loss of only 440 jobs at Rock Island. That, by itself, is misleading for this reason.

The Army actually intends to move out 1,382 research and development type jobs that consist mostly of scientists and engineers. This R. & D. technical expertise would then be replaced by supply and maintenance people whose job is primarily shuffling papers.

In regard to Colonel Doyle's testimony, he commented that this new reorganization would improve the interfaces between the various components that go into a weapons system. However, we see he neglected to mention this is going to be replaced by a new set of interfaces; namely, when you separate these two organizations, which that slide would show, by about 1,000 miles, you have your R. & D. in one place and your production in another, you have got to interface your R. & D. with your production, which is currently being done within a single organization located at the same site.

Now, you will have a new set of interfaces to develop; which are a new set of problems.

[Chart shown entitled "Armament Research and Development Command/Armament, Materiel Readiness Command."]

[See page 33.]

Often we find communicating with people across the hall is sometimes more difficult than communicating with people in other agencies thousands of miles away.

I personally have been involved in some of that. I can cite quite a few examples of it.

Incidentally, our people at Rock Island have also gotten statements that their jobs are being transferred to Picatinny, some starting early in the first quarter of fiscal year 1977.

As you see by the slide there in the lower left-hand corner, the Armaments Command is now headed by one two-star general and one staff organization. That is being split up into two organizations, separated by 1,000 miles, each headed by a two-star General and each involving two separate staff organizations with new interfaces between as shown by the vertical arrows that run up and down there.

In conclusion, I would like to earnestly request this committee to inject a measure of sanity into this Nation's defense planning and to reject the Army's request for the expenditure of more tax dollars for implementation of an armament development center plan that will destroy more than it will build and cost more than it will save.

I am sure that a new set of planners and decisionmakers could devise a more practical and cost effective plan for correcting the current problems without throwing the baby out with the bath.

The cost and effectiveness of our Nation's future gun systems hinge on your appropriations decisions. We trust in your wisdom and your ability to penetrate beyond the official "window dressing" and do what is really best for our Army and for our country. We ask that all appropriations requests for an armament development center be firmly denied by you gentlemen. At least until the full cost impact

of all the factors that have been brought out here today have been realistically computed by a truly independent agency.

You can act courageously, for the good of our country.

Mr. SIKES. Thank you very much, Mr. Baumgarth. You have well represented a very fine organization. It has been my pleasure to work with them in other areas.

STATEMENT OF MR. CLAUD COMER

We now have Mr. Claud Comer, director of the Rock Island task force against the move. Would you please come forward? We will be glad to have your statement.

Mr. COMER. I also work in the Rock Island Arsenal, but today I am representing the Quad-City Task Force, an organization of community leaders, elected officials and labor organizations formed in 1974 to assess the impact of the Army's proposed reorganization at Rock Island Arsenal.

COMMUNITY IMPACT

Before I proceed, I would like to address one question that came up earlier concerning the $19 million Quad-City area impact. Hopefully our understanding will give you a little more light on that.

In making the comparison with what actually happened, the Army made a comparison which presently says we have a table of distribution at the Island (Arsenal Island, located at Rock Island, Ill.) that calls for so many people. Although that total table of distribution is not all occupied. There are empty slots there. They use the actual number of people on board as a starting point but as the ending point they use the potential, the full TDA after the reorganization takes place.

What GAO did, they compared apples with apples. They compared the potential that presently exists compared with the potential that will exist, showing the net loss of 440 people and in addition they charge one man in the vicinity outside of the arsenal against each man lost at the arsenal to get a total impact. This is an "impact per year" basis.

Mr. MURTHA. We have the actual against the potential. Both GAO and Army compared the same thing?

Mr. COMER. The GAO compared the potential. The Army compared actual to potential.

Mr. MURTHA. What would be your potential right now? What would make a difference there?

Mr. COMER. Your TDA for example today—I don't know the exact numbers, but let's say it calls for 7,500 people. It may very well be you only have 7,000 people onboard. You are in the process of filling slots. Your actual onboard is 7,000, as the Army's starting point.

When you get the new TDA, you have lost 440 spaces, so you only have 7,060 to start with and they used that as a final——

Mr. MURTHA. You are saying the Army actually has 6,000 onboard; there is a potential of 6,500. They started out with the actual onboard, but then in their end figure they used the potential rather than a projected figure?

Mr. COMER. That is right, and then GAO said the Army didn't account for any people in the local community losing jobs. GAO says you must count one for one.

Mr. MURTHA. May we ask the Army why they did that?

Mr. SIKES. Do you concur in the statement, General Wray?

General WRAY. The requirement that we start with the number of people on hand is a requirement of NEPA.

Army has a certain number of people onboard now. Let's say it is 6,000. We have a plan for a new organization, so we believe it would not be wise for us to build up past that 6,000 to hire for spaces that are going to be needed only for a short period of time. We would prefer to stay where we are and move toward the new organization.

We assume also when the new organization is set up that eventually we will hire the number of people that we say we need for the organization. That is basically our rationale for the way we did it.

Mr. MCEWEN. General Wray, I don't see that that refutes this statement. You are saying that in making the study your rationale is to take the number you have presently, admitting there are unfilled positions contemplating this change. You have let the number of personnel come down, but if you are weighing the present against what is proposed, the present, if it were to stay, would have to go up to the number this gentleman is testifying to. Is that not correct?

General WRAY. If we had no plans for the change, that is correct.

Mr. MCEWEN. So if the mission as it now exists were to be carried out into the future, there should be a greater number than the base you start from?

General WRAY. That just depends on the number of people that you have in the organization, the number of people you expect to have in the organization as it is set up at the present time.

Mr. GALE. The authorizations at the time of analysis were 8,347 and the onboard at the time this study was made were 7,678. Now, when you talk about a future organization, sir, you can only use a projected number because the future is out there and therefore you don't have any actual future.

Mr. MCEWEN. Just a minute. What General Wray was saying, as I understood it, was that in anticipation of this reorganization, the numbers of people at Rock Island were permitted to decline?

General WRAY. I don't believe I said were permitted to decline. I said from that point we would not hire people who would only be needed for a few months.

But we have the same thing. The number did come down beyond what you otherwise would have required.

Mr. MURTHA. You should have right now 8,347 people. That is what you should have if you are going to stay as you are now.

Mr. GALE. That is right.

Mr. MURTHA. You say you start at 8,347 and go to whatever is the potential rather than start from 7,678 which is what you actually have. That gives you a more realistic picture.

Mr. GALE. But the National Environmental Policy Act specifically advises you to start in the community with the number of people that you have on board and not the number of people you are supposed to have by authorizations.

Mr. MURTHA. I understand what you are saying, but in order to get a fair comparison, you should have gone from the 8,347 to your potential and that is what GAO did.

Mr. GALE. That is precisely what was done in the case study justification folder. That is what was done in the adjustment of the spaces in the decision documentation all the way through, you see. However, in the calculation of the actual impact on the community, the rules, by act of Congress, are different.

Mr. MURTHA. I understand what you are saying, but it is not a fair comparison. That is what I am saying. I am saying GAO's is a more realistic comparison because 8,347 is what you should have there, and you would have—if there were no change, you would have 8,347 people there.

Mr. MCKAY. If you had not contemplated the change, you would have had 8,347.

Mr. GALE. I can't say that.

Mr. MCKAY. The general just said so. He said, "We are not going to hire people for 6 months when we know we are going to make a change." Therefore, you have reduced the level.

General WRAY. NEPA requires that we look at what the actual impact would be. Not the potential impact.

Mr. MURTHA. I understand you are complying with that, but it is not a true comparison because that is not the actual impact. If you hadn't reduced it, you would have 8,347 people working there. If you had kept it just the way it was, you would have more people working there than you actually have now. That is what I am saying.

General WRAY. We might well, yes.

Mr. MCKAY. The EPA edict is what you use. If that had been applied before you anticipated the move in the reorganization, you would have had at that point 8,347 people, is that right?

General WRAY. We might have. We would have had to use whatever we had on board. Yes, sir, that is correct.

Mr. MCKAY. Therefore, anticipating the change, you allowed some attrition to take place before you instigated the study of potential?

General WRAY. Yes, sir.

Let me place this in perspective. What we are talking about is a change of approximately 440 civilians and 45 military out of 8,347 people employed at the arsenal.

[Additional information supplied by Mr. Baumgarth follows:]

This also includes headquarters of the U.S. Army Armament Command as well as Rock Island Arsenal.

General WRAY. Also, 440 to 500 people out of a total work force, that is much, much larger in the area. So that, regardless of how you figure it, the community impact in terms of the percent of the work force in the area is very, very small, on the order of a percent or so.

Mr. GALE. I also want to add this was not done in any deliberate way except to comply with the congressional rules. We were mandated in 1976 to reduce the R. & D. personnel by 2,500 in the Army. I think there was a 6,000 reduction ordered by Congress for the total Defense Department.

So all our installations took their share of the cut.

General WRAY. It turns out, sir, that we are talking about a number of people, roughly 500, in a work force of 158,625, which is on the order of three-tenths of 1 percent or so.

[Additional information supplied by Mr. Baumgarth follows:]

It should be either 500 out of a work force of 8,000 or a number in the thousands out of a work force of 158,625.

Mr. MURTHA. Mr. Chairman?

Mr. SIKES. Mr. Murtha.

Mr. MURTHA. You have 7,678 people working there now. Under the old proposal, if you stay just the way it is, how many people would be working there? Can you give me that figure, if it stayed just the way it is now?

Mr. SIKES. Could you have stayed the way it is now under the directive for a reduction of personnel?

General WRAY. We could not. We would have had to reduce people.

Mr. SIKES. What would have been your ceiling under the new budget guidelines, 8,347, what?

Mr. GALE. The authorized ceiling at this point would be about 8,188.

Mr. MURTHA. You have 7,678 working there. My question is, you can go up to 8,188 under the present ceiling; you had to reduce that from 8,347 to 8,188?

Mr. GALE. Yes. We did not have the funding for that.

Mr. MURTHA. Theoretically you could?

Mr. GALE. Right. But there was no funding for that.

Mr. MURTHA. Under the old procedure, you would have gone up to 8,188; you could not have gone any higher, is that correct?

General WRAY. If we had the spaces and the money for it, we would have, yes.

Mr. MURTHA. You have the space, according to your figures?

Mr. GALE. Yes, but the money was not there.

Mr. MURTHA. What would you go up to under the proposed change; what will be the number of people working there under the new proposal?

Mr. GALE. 7,862.

Mr. MURTHA. So you are talking about an increase of 184 people; that is where your $588,000 comes from?

Mr. GALE. Something like that.

General WRAY. Yes, sir.

Mr. SIKES. All right, Mr. Comer.

LOSS OF EXPERTISE

Mr. COMER. At the chance of initiating another discussion, let me offer one clarification on a point that has been brought up a couple of times.

Various people have talked about the loss of expertise involved in the transfer. Speaking strictly from the Rodman Laboratory at Rock Island, a very conservative estimate has been somewhere between 7,000 and 10,000 man-years.

The Quad-City task force as taxpayers become very concerned with the proposed revolutionary reorganization of the total conventional armament community, and questioned that such a massive reorganization would be effective.

In voicing this concern more than a personal interest of the people working at Rock Island Arsenal is involved. We are also interested in assuring that this country has an adequate defense at a reasonable cost.

MANAGEMENT IMPROVEMENT NEEDED

The people who work daily in the materiel acquisition process readily understand the concern and need for improvement, and realize the present organization has room for improvement. However, any efforts to improve the system must fully consider key critical areas, such as readiness of the Armed Forces, national security of the country, and the potential effectiveness of that change.

The Army Material Acquisition Review Council, which was chartered by DA to study the materiel acquisition process did grasp and identify some of the key problems within that process. These key findings can be summarized and reduced to the following three basic items:

(1) The inability of the Army at the highest level to make decisions and follow through.

(2) The excessive layering of staff in DA, AMC, and in the organizational structure of ARMCOM.

(3) The lack of adequate and firm requirements documentation for development of hardware.

These findings are considered key to improving the material acquisition process: However, it should be noted that these findings are not new, they have been voiced numerous times before from within the ranks of the working people in the material acquisition process.

This chart [No. 1] displays one actual case problem which substantiate these AMARC finds. The busy chart outlines 6 years of decision activities relative to improving the armaments on the Cobra helicopter with only a partial decision after 2½ years and a final decision last month [June 1976] more than 7 years later.

It is interesting to note that production hardware will be coming off the line in September 1978. This gives you some idea of how long it takes the working level people to make the product after the decision is arrived at.

[Chart 1 follows:]

CHART 1—CASE STUDY

DATE, DIRECTIONS OR ACTIVITY

March 1969—DA request AMC perform study.
October 1969—Briefing presented to DA.
October 1969—DA directed study be modified to include Shillelagh missile.
December 1969—Revised study briefing presented to DA.
February 1970—COFA approved AMC recommendation and indicated program direction to follow.
February 1970—DA requested additional data.
April 1970—Additional data provided.
May 1970—ACS for briefed Secretary of Army.
June 1970—DA requested impact if program proceeded with 30-millimeter weapon only (missile system to follow at later date).
July 1970—Impact presented.
March 1971—DA modified original recommendation to delete 30-millimeter and add TOW missile only.
July 1971—DA provided funding for modified program.
March 1972—Development contract awarded for modified program.
September 1972—Masster advised DA that Cobra needed large-caliber gun immediately.
February 1973—AMC directed ARMCOM conduct study for gun.
May 1973—Study presented.

June 1, 1973—AMC directed AMCPM–CO conduct study for gun.
August 1973—Study presented to AMC.
September 1973—AMC directed study be modified to include fire control.
October 1973—AMC directed study be modified to include 2.75-inch rockets.
November 1973—Study presented to AMC.
October 1974—AMC directed AMCPM–CO provide cost and schedule for large-caliber gun for new Cobra buy.
October 1974—TRADOC directed all action relative to Cobra be suspended until completion of pass-in-review study (to be completed in April 1975).

Mr. McEwen. Do you want to hold that on just a minute? I would like to see it. This is the main weapon for the Cobra?

Mr. Comer. It is not the main weapon. It is referred to as the secondary armament. There is a system referred to on the Cobra as the primary armament.

Mr. Sikes. Very well. Proceed.

Mr. Comer. The AMARC study recommendation of primary concern is the establishment of an ADC at a single location . . . by consolidating selected elements of Frankford, Picatinny, Rock Island, and Watervliet Arsenal research and development activities through an evolutionary action while at the same separating logistics functions from research and development functions. As can be seen from the prior example, consolidation of the arsenals, that is, the foundation blocks of the research and development activities in the material acquisition process, will not correct the problems being experienced. Since the major difficulty results from indecision and too many levels of management above these foundation blocks. In addition, it is suggested that combining all activities at one location is not necessary for effective operation.

Otherwise, Bell Laboratories, General Motors, and other people could not continue to report profits or increase profits on a yearly basis. It would appear that effective management is much more significant than geographical location.

Following the AMARC Committee, an Army Materiel Command It appears that the committee did not review project case files for cause-and-effect relationships and determine if improvements could be provided by the proposed ADC.

In addition, ongoing reorganizational activities were dismissed as insufficient, without evaluating progress made under existing plans to date.

DISADVANTAGE OF REVOLUTIONARY APPROACH

Instead, the AMC Committee proposed a revolutionary approach which would shake up the total armament community in a massive reorganizational effort.

[Chart 2 follows:]

CHART 2

Large Caliber Systems

STABILITY

Highly stable: 1965 to present
Ammunition—PA.
Weapon—RIA/WVA

Fire Control—FA.

OUTPUT

M–102 Towed Howitzer.
M–107 SP 175-millimeter gun.
M–109 SP Howitzer.
M–110 SP Howitzer.
XM–198 Towed Howitzer.
XM–204 Towed Howitzer.
XM–712 Cannon launched guided projectile.
M–6—Firing platform: Large caliber, soft recoil—product improvement programs (M–107, M–109, and M–110).

Small Caliber Systems

STABILITY

Many reorganizational changes

1967—Springfield Armory closure:
1. Transfer of function for weapon design and fabrication to Rock Island.
2. Transfer of function for systems management to Small Arms Systems Agency (APG).

1968—Weapons testing added to Rock Island mission (Keith L. Ware simulation and experimental firing range).
1973—Systems management function transferred to Rock Island.

OUTPUT

M–16A1 Rifle.
M–203 40-millimeter grenade launcher.
M–219 Machine gun.
Squad Automatic Weapon System (SAWS).

Mr. COMER. This chart (No. 2) demonstrates our concern over the readiness posture and the detrimental impacts of reorganization. Over the past several years, the organizational structure for large caliber work has been stable and highly productive: Whereas, small caliber work has been subjected to many reorganizational changes and, consequently, the productivity has been substantially less. However, present acomplishments indicate that the small caliber operation is finding stability at this point in time. Now the Army is planning to upset both of these functions in a major reorganization. The impact on hardware provided to the field user and on the readiness posture is quite obvious.

In formulating their reorganization recommendations, the AMC Committee did not address some key questions. What happens if the ADC/ALC concept is a failure? What is the backup mode of operation? What is the cost involved in trying to recover? If the task is undertaken to totally shake up the entire armament community, which will admittedly result in substantial loss of expertise, key personnel, and facilities, how long will it take to recover from such a revolutionary approach? What happens during the transition period if emergencies occur? These key questions must be addressed.

In our previous presentations to the Secretary of the Army, we suggested an alternative proposal which did address the above key critical questions. This was proposed only if the Army thought it would be necessary to incorporate the AMARC recommendations. The alternative proposal was a multiple-site, in-place reorganization which accounts for DOD imposed RIF's and imposes additional per-

sonnel reduction compatibility with the primary AMC reorganization alternative.

The following advantages are applicable to both of the suggested methods under our more evolutionary approach.

1. If desired, the ADC/ALC concept can be tried and evaluated in place on an experimental basis. In the event this concept proves unsatisfactory, the Army is not faced with an irreversible high-cost exercise in order to return to the life cycle management concept which presently exists.

2. The one-time cost is substantially lower than any reflected in the AMC report.

3. Implementation could be performed more quickly.

4. Production engineering is collocated with the in-house commodity activity, thereby reducing potential interface problems.

5. There is a significant cost advantage when discounted over the proposed 15-year span.

6. Provides continuity of programs and retention of highly qualified personnel.

For the multiple-site plan the one-time investment cost has been estimated at $40,349,000; compared to $76.5 million for the AMC alternative, and the recurring cost at steady state was estimated at $287.2 million, as compared to $287.4 million for the primary alternative in the AMC report. These reduced recurring costs are accomplished by personnel reductions to the same levels recommended by AMC. The savings reported in both the AMC proposal and our proposal are essentially the result of manpower reduction since no actual bases are being closed.

This approach is immediately responsive to most of the AMARC recommendations and does not severly impact accomplishments to date under prior reorganizational activities.

The above suggestion was presented to the Department of the Army as a result of their commitment to our congressional delegation, that they would accept and evaluate our inputs prior to making a final decision on the proposed reorganization. It is worthy to note that the decision was rendered on December 2, 1975, and to date, we have not been advised, nor have we seen any comments from the Department of the Army on the proposed alternative which was presented. In addition to not receiving any response from the Army on the suggested alternative, we have made numerous suggestions and submitted questions to the Army to which no logical responses have been received. These include the following:

Since only 10 percent of the personnel would transfer to Picatinny Arsenal, it is obvious that current programs now underway will suffer delays in accomplishment. In addition, new programs will suffer delays in initiation. There is no consideration in the Army study for the increased cost that will result because of the rate of inflation of our economy.

The cost accounting in the Army studies does not recognize (i.e. include) the funds expended to date on the basic studies themselves. Should the reported savings be reduced to account for these expenditures?

The TOAMAC study which resulted in combining guns and bullets at Rock Island Arsenal by moving munitions people from Picatinny Arsenal to Rock Island Arsenal in fiscal year 1974 was reported to result in a savings of $169 million through fiscal year 1980. If the proposed reorganization is carried out, will these savings ever be realized?

The Army was requested to provide information to demonstrate success experienced in prior reorganizations such as provide audit trails which would identify if the proposed savings of such reorganizations were effected, and also to indicate how the funds were then used.

All of these questions were never answered.

It is our suggestion that the reason the Army has not provided a logical response to some of these questions is because there does not exist any overall long-range planning within the Army concerning organizational structure for the conventional weapons industry. In some of the other areas a logical response for the questions would be detrimental to the reorganization they are planning.

COSTS AND SAVINGS DISPUTED

In addition to the above inconsistencies, the recent GAO findings on the proposed reorganization illustrates again that all the benefits to be gained, as reported by the Army, are erroneous.

This is best illustrated from what you heard before concerning the annual claims. For the Army to lose more than 80 percent of its in-house weapons expertise for a mere savings of $8 million per year would be nothing but a simple tragedy.

Some of the other items which should be of interest to your committee include the following:

(*a*) Funding originally identified in the budget for specific projects has been used on numerous occasions to pay the wages and associated costs for personnel who have been working on the reorganization. The legality of this has to be questionable.

(*b*) The cost for completing the reorganization as proposed, we believe, has only been partially presented. For example, special study groups reviewed the requirements for test ranges at Picatinny and determined that $25,477,000 would be required to provide compatible facilities with what is available today.

In the case of the range facilities they found a cost of $25 million to $33 million. In the case of the test range requirements and numerous other requirements, including prototype manufacturing facilities for large-caliber weapons, the directions to the planners has been: "If it doesn't fit into the budget for the one-time cost, forget it."

Does this mean that the Army will be requesting additional funds for these additional facilities at some date in the future?

Third, unofficial word indicates that the direction received by the personnel presently working on the reorganization is to proceed because the program will proceed on schedule regardless of what the outcome for reprograming request turns out to be.

In view of the above numerous discrepancies and inconsistencies in the proposed and prior reorganization by the Army, it is suggested that

the request for reprograming of funds be denied until such time as a reevaluation can be completed to determine the best logical method with long-range planning for the Army to improve the material acquisition process while at the same time not jeopardizing our conventional weapons defense capability. The denial of funds should not be limited to this particular reprograming request, but should cover all future funding requests for the ADC proposal.

Thank you.

Mr. SIKES. General Wray, there have been a number of challenges to the Army's figures, questions about the accuracy of savings estimates, references to GAO. I realize you are not now in a position to respond in detail to these challenges and questions of the accuracy of your figures. I trust that you will give consideration to the points which have been made and that you will be prepared to attempt to evaluate the statements where they differ with yours for the committee records.

General WRAY. Yes, sir, particularly with respect to the GAO report when it is available.

Mr. SIKES. Do you wish to comment briefly now?

ARMY COMMENTS ON GAO FINDINGS

Mr. GALE. Sir, we have been in touch with the GAO and I am authorized to give you this report: that it is our impression that the only remaining major issue or point of contention between the Army's study and the GAO is based on the savings.

The Army has claimed $42 million savings, $37 million of which, approximately, arise from management savings; $5 million of which arise due to mission reductions.

The GAO switched around some of the pockets from which the savings came and has to date disallowed approximately $4.4 million of those savings, indicating, therefore, approximately $31.5 or $32 million in the study.

I think we have previously commented on the $19 million discrepancy in the economic—in the socio-economic impact of the Rock Island area.

I am not aware of any other inconsistencies in that particular report. I am aware of some inconsistency in the previous report with respect to Frankford Arsenal. In that particular report the GAO indicated that the Army may have overstated the savings of $21.8 million by $1.3 million, but the GAO also indicated that the assertion of the city of Philadelphia to a claim of $1.2 billion for mobilization readiness in case Frankford Arsenal is closed was not a justifiable item.

Those were the major differences in that particular report.

Mr. SIKES. You can expand your answer for the record.

[The information follows:]

Facts pertaining to the GAO draft report of the Armament community realignment are:

1. Army and GAO have been attempting to reconcile differences on the GAO draft report for the ARMCOM realignment. GAO had earlier released figures from the draft report to Members of Congress indicating the Army had understated the community impact by $19M and two other significant cost adjustments.

2. GAO position was that there were 120 more end strengths transferred from Frankford Arsenal to Headquarters, ARMCOM than there were man years. GAO conclusion is that the CSJF results in an overstatement of savings of $2.357M in this instance.

3. GAO has shown an R&D overstatement of $6.980M and O&MA understatement of $4.986M for another adjustment of $1.994M.

4. Considering GAO workload adjustment of $6.288M, GAO management savings shows $31.243M rather than $36.794M announced by Army in December 1975.

5. In computing the community impact, Army compared the actual strength on 31 January 1975 with the expected strength at end of realignment. This showed an anticipated gain in employment at Rock Island Arsenal (RIA) of 184 and anticipated increase in RIA personal income of $0.59M. GAO showed an expected loss of 485 at RIA by comparing the authorized strength at end FY 76 with the expected strength at the end of realignment. The result was a loss of $19M however, the goal of the law (National Environmental Policy Act) is to show the actual on-board strength, compared to the expected strength at the end of the realignment action. (A loss of $19M is less than 1% of the $2B personal income of the affected community.)

Facts pertaining to the GAO report dated 23 September 1975, "Examination of the Announced Closure of Frankford Arsenal" are:

1. At the request of Congressman William A. Barrett, the GAO conducted an examination of the Army's announced closure of Frankford Arsenal under the CONCISE Study. The examination was made during period Feb-Sep 1975.

2. The basic findings of the GAO were (1) that the Army estimated the closure of Frankford Arsenal would produce annual savings of $21.8 million and would result in one-time costs of $29 million: (2) that the Army has overestimated annual savings by about $1.3 million; (3) that the city of Philadelphia's claim of additional costs ($1.2 billion) for stockpiling because of the closure was not supportable; (4) that the Army did not consider unemployment compensation in calculating its one-time costs and that such payments might be substantial; and (5) that the CONCISE closure plan provided for transferring most of the arsenal's research and development activities to Rock Island but the Army was now considering the establishment of the Armament Development Center which, if established, would materially affect the relocation of the R&D activities of Frankford Arsenal.

3. The comparison of Army and GAO estimated annual recurring savings are shown below:

	Army	GAO ($000)	Differences
Civilian Personnel	$26,530	$25,032	-$1,498
Military Personnel	422	295	- 127
Other (supplies, utilities, equipment, operating costs, etc)	9,430	10,506	+ 1,076
	36,382	35,833	- 549
Offset for Contracting	-15,342	-15,342	0
Arsenal Savings	21,040	20,491	- 549
Tenant Activity Savings	791	0	- 791
TOTAL SAVINGS	$21,831	$20,491	-$1,340

4. Reasons for differences are:

a. Civilian Personnel - Army used personnel salaries and related fringe benefits on basis of average salary of all Frankford Arsenal civilian employees. GAO made analysis on salaries and related fringe benefits of various groupings of employees such as general and administrative. This methodology reduced the civilian personnel savings.

b. Military Personnel - The Army estimate was based upon 33 military position. At the time of the GAO examination Frankford Arsenal military positions had been reduced to 20 by a DARCOM action.

c. Other - The Army used costs for supplies, utilities, equipment, and operating costs based upon Frankford Arsenal averages. GAO determined that such costs were less for the Rock Island area and therefore the Army would realize additional savings in the amount of $1,076,000.

d. Tenant Activities - The GAO believed from analysis that the Army claimed savings for tenant activities twice.

5. Unemployment Compensation - The Army followed OSD policy in not considering unemployment compensation. GAO stated that it would be impossible, at this time, to accurately predict the number of employees who would file for and receive unemployment compensation benefits. Such a determination would depend upon number of personnel transferring with a function, retirements, and those who find other employment, die or for other reasons do not qualify for the unemployment compensation. In regard to the latter is the eligibility of a riffed employee to receive both severance pay and unemployment compensation from the government.

DISPOSITION OF EXISTING FACILITIES

Mr. SIKES. What do you propose to do with the facilities that you propose to vacate, General Wray?

General WRAY. We would excess those facilities.

Mr. SIKES. You would excess Frankford?

General WRAY. That is correct. We would allow the other services first to determine whether or not there is any need.

Mr. SIKES. Have they indicated an interest in it?

General WRAY. No, sir, not to my knowledge at this time.

LOSS OF TRAINING AND EXPERTISE

Mr. SIKES. What can you say about the concern that you may have for loss of efficiencies and skills as a result of personnel not transfering, electing to take the RIF rather than transfer, and the necessity for building up other individuals to the same level of skill and efficiency which present employees possess?

General WRAY. Colonel Doyle, I believe you should address that.

Colonel DOYLE. Sir, it was recognized in the study, and the documentation, that there would be losses of personnel in any physical movement based on historical experience. The loss of expertise is another thing. It does not require the movement of every individual in order to preserve the expertise, the essential body of knowledge. It is a management judgment as to how much of this can be absorbed.

The estimate of the study group as approved by the Department of the Army was that the losses of personnel, many of which would be covered by the expected reduction in end strength anyhow, were acceptable and would not create a danger to the development programs.

Mr. SIKES. Ordinarily, when you make any major reduction in personnel, whether it involves a transfer or not, the people you are most likely to lose are the Indians, not the chiefs. Are you going to wind up with a top-heavy organization as a result of this transfer and consolidation?

Colonel DOYLE. Sir, it can be argued both ways; I have heard it argued both ways. That is, those with the greatest stake, the longest careers, tend to move. The other argument is that the younger man is more mobile, sees the opportunity, from those who have sunk their roots more deeply.

Mr. SIKES. Do you have evidence to show which you lose?

Colonel DOYLE. No, sir. I would say in response——

Mr. SIKES. You are not concerned that there would be a serious loss of efficiency and skill as a result of this change?

Colonel DOYLE. Sir, we are concerned. We recognize that the transition period will be uneven and that new personnel will have to be recruited at the new site for jobs at the new site. We do not feel that it endangers the Army's mission performance.

NEED FOR REALINEMENT

Mr. SIKES. The statement has been made that you are going to add a new layer of officialdom, which is costly, while you reduce personnel at lower levels. Can you not reduce personnel and effect a reorganization without changing the location of your activities?

Colonel DOYLE. No, sir, not without a detrimental effect to the mission. The reduction in strength is a product of the consolidation. The objective is to maintain productivity or output at a steady level, by bringing the organization together, making it more efficient, more effective. We could do it as a byproduct with fewer people.

To reduce fewer people in place would mean to reduce output, unless there are efficiencies people do not know about.

EFFECT OF DELAY IN CONSTRUCTION

Mr. SIKES. What would be the damage to your program which would result from a delay in approval of reprograming for construction?

Can you spell out any serious deleterious effects on the program itself as a result of such a delay?

Colonel DOYLE. As opposed to dollar savings, sir, disruption to program?

Mr. SIKES. Yes.

Colonel DOYLE. There would be more than just loss of anticipated savings. In fact——

Mr. SIKES. You are talking about straight dollars?

Colonel DOYLE. Yes.

Mr. SIKES. What about damage to the program; would there be any adverse effects there?

Colonel DOYLE. There would be considerable damage to the Army's program.

Mr. SIKES. For instance?

Colonel DOYLE. The longer the period of uncertainty continues, the greater is the exodus of employees from the system in place. Comments from Rock Island might be appropriate in this regard because there has been a trickle of scientific and engineering personnel out of the laboratory due to the uncertainty of the future and where it was going to be. So this would have an adverse effect.

ONSITE VISITS BY ARMY SECRETARIAT

Mr. SIKES. What has been the highest level of Army personnel actually to have visited Frankford and Picatinny to see firsthand what is being proposed? Has the Secretary of the Army been there?

Colonel DOYLE. I am confident he has. I believe he has been to both of those in the course of the study and sometimes by invitation from the congressional delegation. I was out of Rock Island, I was not out there, but I know he visited Rock Island. I believe he has been to the other installations as well.

[The information follows:]

The Secretary of the Army has not visited Frankford Arsensal, nor Picatinny Arsenal. He did visit Rock Island Arsenal on September 17, 1975. The Under Secretary of the Army visited Picatinny Arsensal on August 19, 1975. On August 28, 1975, the Under Secretary viisted Frankford Arsenal.

CONSIDERATION OF CONGRESSIONAL PROPOSALS

Mr. SIKES. A number of alternate plans have been offered, one by the Pennsylvania delegation, others from other sources.

The inference is that you have not given very serious consideration

to those alternatives if they came from outside the Army. Is that true?

Mr. GALE. May I comment on that? I am rather crushed to hear that on two accounts.

First, we have been accused of doing this realinement action sort of secretly. If we had been doing it secretly, it really leaked out because I have answered on this action alone some 12,000 to 15,000 letters in the last 12 months. We have also answered many proposals.

Now, the proposal that was just recently referred to as the Frankford proposal did in fact not get to us 4 months before the reply but approximately 2 months. The proposal was submitted to us on the 9th of February 1976, by the congressional delegation. It was a very thin proposal, just an outline.

On March 1, 1976, we went back to the Philadelphia congressional delegation with individual letters and asked them to provide further details, and they provided those details to us on the 31st of March. We then took 2 months to conduct what the Secretary of the Army described as a very objective and thorough evaluation of that proposal.

The results showed that from the point of view of cost effectiveness, particularly as it is related to operational savings, it is our best estimate—it would cost approximately $10 million a year more to operate with the Small Caliber Weapons System Laboratory located at Frankford Arsenal.

Now, there may be a savings in building construction. The proposal claims they need no new buildings. Our estimate shows that they may need as much as $15 million to $17 million worth of buildings or renovations. But even if under the Philadelphia proposal we assume the most optimistic route and would give them credit that they needed no buildings at all, the Army's proposal due to its $10 million a year lower operating cost would pay back the relatively higher one-third costs of the Army's proposal within less than 2 years. That is all documented in the response to the Philadelphia delegation, plus the operational consequences that would result from this, the economic consequences and the answer to many issues which the proposal specifically addressed.

LOSS OF TESTING CAPABILITIES

Mr. SIKES. Will there be a loss of testing programs now being conducted for the NATO allies as a result of this move?

Colonel DOYLE. We do not anticipate there will, sir. There are ranges available already in the Army system on the east coast at Test and Evaluation Command at Aberdeen Proving Ground, at the Ballistic Research Laboratory at Aberdeen Proving Ground, the small range at Fort Dix and a small range at Picatinny, which can be certified to accommodate that requirement. I should mention that NATO testing consumes only about 3 of the 26 ranges at Frankford for a period of 3 to 5 weeks out of each year.

That is the extent of the usage for that NATO testing.

Mr. SIKES. You have these other places where the testing can be carried on?

Colonel DOYLE. Yes, sir.

Mr. NICHOLAS. In the previous testimony, reference was made to a rather large facility which looked like an indoor range. Do you require

a specialized facility, environmentally controlled ranges in order to do this certification work, or can you just take it out in the open?

Colonel DOYLE. The current planning, because of the current status of the small arms programs, which are relatively small in dollar volume, calls for the possible construction of a small range, somewhere in the $2 million range, at some future date, unspecified.

It is our plan to use existing ranges at Aberdeen Proving Ground, at Fort Dix, and at Picatinny Arsenal until such time as the need for the range and a description of the range requirements can be clarified.

[The information follows:]

We do not require specialized or vacuum-controlled environment. In fact, outdoor ranges are appropriate, equipped with simple provisions for heating or cooling only the ammunition.

Mr. SIKES. Is the range included in your future construction plans?

General WRAY. Not in the near term, not through 1979.

Colonel DOYLE. No, sir.

Mr. SIKES. Mrs. Meyner?

Mrs. MEYNER. Mr. Chairman, I cannot let it slip by without making some short comments, with all due respect to my colleagues, Mr. Railsback and Mr. Mezvinsky.

In particular, I would like to refute some things Mr. Baumgarth and Mr. Comer said in their testimony which sounded like pure supposition and not fact.

For one, there was an insinuation that, with the transfer from Rock Island to Picatinny, the quality of the ammunition would change. I would like to see some valid facts on that. That is No. 1.

No. 2, the charge that was made—not a charge, really, but supposition—that people simply are not going to move from Illinois to New Jersey. I would like to point out that all my friends from Rock Island can hardly wait to get to the Garden State; they look forward to it. I think that it will be a good move.

I would like to see the facts that only 10 percent would transfer.

Then the statement that the existing facilities at Picatinny are not so good as those at Rock Island. I have visited Picatinny many, many times; I have been there often; I was there recently. I invite this committee to come and tour Picatinny and see that indeed our buildings are not all old and outmoded, they are very good.

In fact, Mr. Chairman, we have already started alterations on 12 buildings at Picatinny. This has been going on, getting ready for the consolidation of ARRADCOM in Dover.

The point I would like to make is that the decision has already been made by the Army; it was announced on December 2, 1975, 8 months ago. The plans for the new command at Picatinny are moving ahead, moving full-speed ahead. An implementation task force of 150 people is there.

Again, with all due respect to my friends from Rock Island, it seems to me that your horse has been stolen and it is a little bit late——

Mr. RAILSBACK. You are right.

Mrs. MEYNER. It seems late to start locking your door. You are 8 months late in locking the barn door; the decision has been made, the transfer has started. You cannot go back.

This was decided 8 months ago. The Army made the decision. They were not prejudiced toward Picatinny. They looked at all plans carefully and in their wisdom decided Picatinny was the best place to establish ARRADCOM.

Mr. SIKES. Thank you very much.

Are there questions of the committee?

Mr. COMER. Mr. Chairman, may I counter some of those comments?

Mr. SIKES. No. I am afraid we are not going to be able to get into that sort of thing. You may complete your statement any way you wish, but we are going to have to move along now.

Mrs. MEYNER. Thank you, Mr. Chairman.

Mr. SIKES. Of course. We have a number of committee questions that we hope will help to bring out the many points which have been treated on in part heretofore.

SAGAMIHARA ELEMENTARY SCHOOL

Mr. SIKES. We are now going to take just a few moments to talk about the Sagamihara Elementary School, to be sure we get it in today.

1. DATE REVISED 15 Apr 1976	2. FISCAL YEAR 1976	MILITARY CONSTRUCTION PROJECT DATA	3. DEPARTMENT ARMY	4. INSTALLATION Sagamihara Dependent Housing Area
5. PROPOSED AUTHORIZATION $ 1,166,000	6. PRIOR AUTHORIZATION Title 10 USC 2673 P.L.	7. CATEGORY CODE NUMBER 730	8. PROGRAM ELEMENT NUMBER 88715A	9. STATE/COUNTRY Honshu, Japan
10. PROPOSED APPROPRIATION $ 1,166,000	11. BUDGET ACCOUNT NUMBER 6100	12. PROJECT NUMBER B820-820.100		13. PROJECT TITLE Sagamihara Elementary School

SECTION A - DESCRIPTION OF PROJECT

14. TYPE OF CONSTRUCTION

a. PERMANENT	
b. SEMI-PERMANENT	X
c. TEMPORARY	

15. TYPE OF WORK

a. NEW FACILITY	X
b. ADDITION	
c. ALTERATION	
d. CONVERSION	
e. OTHER (Specify)	
f. REPLACEMENT	X

16. TYPE OF DESIGN

a. STANDARD DESIGN	X
b. SPECIAL DESIGN	
c. DRAWING NO.	

18. PHYSICAL CHARACTERISTICS OF PRIMARY FACILITY

a. NO. OF BLDGS 3 | b. NO. OF STORIES 1 | c. LENGTH Var | d. WIDTH Var

e. DESIGN CAPACITY 600 Students | f. GROSS AREA 24,090 SF

g. COOLING A/C CAP. 31 Tons COST IS 64,000

19. DESCRIPTION OF WORK a. DESCRIPTION Construct three pre-engineered metal buildings with concrete foundation and floors and interior corridors and partitions covered with protective finished gypsum board. Provide required utilities, paving, roads, walks, covered walkways, curbs, drainage, parking areas and site improvements. Air condition one building. Hot water heating from existing central boiler plant. Construct fire wall for existing Building T-529. Raze destroyed building. Not sited in flood plain.

SECTION B - COST ESTIMATES

20. PRIMARY FACILITY	U.M	QUANTITY	UNIT COST	COST ($ 1000)
School Buildings			$	$ 926
a. Adm/Classroom Bldg (2 ea)	SF	14,740	37.25	549
b. Multi-purpose Bldg (1 ea)	SF	9,350	40.32	377
c.				
d.				
21. SUPPORTING FACILITIES				$ 240
a. Covered walkways			LS	34
b. Electrical			LS	11
c. Water and Sewers			LS	10
d. Htg. Distribution			LS	24
e. Rds., Parking & Walks			LS	72
f. Storm Drainage			LS	18
g. Site Improvements			LS	22
h. Fire Wall			LS	4
i. Demolish Fire-destroyed Bldg			LS	45
j.				
22. TOTAL PROJECT COST				$ 1,166

SECTION C - BASIS OF REQUIREMENT

23. QUANTITATIVE DATA (U/M SF)		
a. TOTAL REQUIREMENT	56,721	
b. EXISTING SUBSTANDARD	32,631	
c. EXISTING ADEQUATE	0	
d. FUNDED, NOT IN INVENTORY	0	
e. INADEQUATE ASSETS (c + d)	0	
	AUTHORIZED	FUNDED
f. UNFUNDED PRIOR AUTHORIZATION	0	
g. INCLUDED IN FY ____ PROGRAM	0	0
h. DEFICIENCY (a - e - f - g)	56,721	56,721

24. RELATED PROJECTS Minor MCA project approved 4 May 1976 by ASA(I&L) for $152,500 provides 6000 SF interim classroom space.

25. REQUIREMENT FOR PROJECT This project is urgently required to replace the main building of the Sagamihara Elementary School that was destroyed by fire on 6 January 1976. This school serves 600 students from kindergarten through the sixth grade who are dependents of US military and civilian personnel stationed at Camp Zama, Sagamihara Dependent Housing Area (SDHA), Sagami-Ono Hospital and Sagami Army Depot. The main building accounted for one half of the school's total area. Its loss left the school seriously lacking in space for classrooms, learning disability, counseling, special education, library, arts and crafts, music, physical education, offices and dispensary. To provide the barest school needs and resume classes as soon as possible after the fire, many school activities were suspended or curtailed. Sixth graders were moved to Camp Zama Middle School. Offices and classrooms were set up in the school cafeteria, and the second floor of the SDHA Youth Center was diverted to classrooms. These makeshift measures provide neither a complete nor proper academic environment. The present depressed quality of the educational program at the SDHA elementary school, the potential loss of teachers through dissatisfaction with existing conditions and future possible loss of the school's accreditation intensify the urgency of early approval and completion of this project as provided by 10 USC 2673 for emergency construction.

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Mr. SIKES. General Wray, do you want to tell us a little bit about this request and the necessity for it? Then we will go back to the Picatinny Arsenal questions.

General WRAY. Yes.

On January 6, 1976, a major fire destroyed the elementary school—from kindergarten through sixth grade—at Sagamihara housing area. Loss of this building—31,785 square feet—accounted for almost half of the school's floor area consequently leaving the school without classrooms, music rooms, physical education rooms, and administration rooms.

Pending approval of a replacement facility, interim measures have been taken to resume school operations. In order to provide less than minimum needs, many school activities were suspended or curtailed to allow for classroom requirements. The school lunch program was suspended and classrooms and offices were set up in the school cafeteria. The second floor of the youth center was diverted to classroom use. The sixth grade was moved to Camp Zama Middle School, 3 miles away.

A minor construction project in the amount of $152,000 has been approved to provide three relocatable buildings—6,000 square feet—that will house those activities which now prevent operation of the cafeteria. These facilities will be retained and used as part of the total elementary school requirement, until such time as their use is no longer required.

The interim steps, however, do not provide the proper academic climate and are not adequate for the total authorized educational program for elementary school children.

Therefore, we are requesting reprograming of $1.166 million to provide permanent facilities to replace those destroyed. Failure to approve this project totaling 24,090 square feet will prolong extremely unsatisfactory conditions now existing at Sagamihara dependent housing area that could have lasting adverse effects on the welfare of the children and will continue to adversely affect the morale of teachers and parents.

That concludes the general information I wanted to present regarding the school, sir. I would be glad to answer any specific questions.

Mr. SIKES. Very well.

The school is located in Japan. What population does it serve?

General WRAY. Sir, the school serves a population of approximately 600 students at the present time. The projected loading is about 550 students.

Mr. SIKES. There is ongoing proposed realinements in the Kanto Plain. Are you sure that there will be a continuing need for this school?

General WRAY. Yes, sir, the 550 is the population for the school we project with known changes in the area.

Mr. SIKES. This is a matter of replacing a school that was destroyed, and you do not have adequate facilities to carry on the work; is that correct?

General WRAY. That is correct, yes, sir.

ARMAMENT DEVELOPMENTS COMMAND

Mr. SIKES. Now, there is quite a number of questions that the committee has not had the opportunity to ask on the Picatinny Arsenal

reprograming. I am going to suggest that Mr. McEwen proceed. Many of these can go in the record, but some should be asked at this time.

AMARC SCIENCE AND TECHNOLOGY TEAM

Mr. McEwen. Specially, what was the recommendation of the AMARC science and technology team report with regard to the creation of a new armaments development center?

Provide the complete recommendation for the record.

[The information follows:]

Create a new armaments development center at a single location, through an evolutionary process, by consolidating selected elements of Frankford, Picatinny, Rock Island, and Watervliet Arsenal R.D. & E. activities together with the Ballistics Research Laboratory and portions of the ARMCOM R.D. & E. Directorate. Promote innovation and excellence by careful selection of location for attractiveness to high-caliber professionals, availability of adequate facilities and real estate, proximity to academic institutions, and accessibility to transportation, in addition to detailed cost considerations. Incorporate Edgewood Arsenal missions without relocation. Retain minimum essential engineering functions at the other arsenals to support required production activities.

Mr. McEwen. Provide for the record the members of this team and the supporting staff.

[The information follows:]

Science and technology team

Mr. Earl J. Morgan—executive assistant to vice president, eastern region, McDonnel Douglas Corp.; 17 years' service on Committee on Government Operations and Armed Services Committee of U.S. House of Representatives.

Dr. Gerald P. Dinneen—director and professor of engineering, Lincoln Laboratory, MIT, Vice Chairman, USAF Scientific Advisory Board.

Dr. Gus D. Dorough, Jr.—associate director of Lawrence Livermore Laboratory; 1971–73, Deputy Director for Research and Advanced Technology in the Office of the Director of Defense Research and Engineering.

Mr. Lawrence H. O'Neill—president, Riverside Research Institute, New York, N.Y.; 1957–70, professor of electrical engineering, Columbia University; Chairman of U.S. Army Scientific Advisory Panel; Member of Defense Science Board (DOD).

Support staff of Army materiel acquisition review committee, science and technology team

Colonel Alan A. Nord—AMC Project Manager for Safeguard munitions; 1970–72, Chief of Nuclear Plans, Central Army Group, NATO; 23 years' service in the U.S. Army.

Mr. Manfred Gale—Scientific adviser, Department of the Army; 1968–70, Associate Technical Director, Mobility Engineering Research and Development Center (MERDC); 1966–68, Director, Intrusion Detection and Sensor Laboratory, MERDC.

Dr. Joel Bengston—Point of contact with Institute for Defense Analyses (IDA); 1962–present, Assistant to President for Jason, Research Staff Member of Science and Technology Division and Research and Engineering Support Division, IDA.

SINGLE LOCATION THROUGH EVOLUTION

Mr. McEwen. Why has the Army decided not to create this armaments development center at a single location through an evolutionary process rather than shifting relatively rapidly to a center spread among three installations?

Mr. Gale. In fact the Army is planning to do this in an evolutionary way. It will take about 4 to 5 years before this realinement is completed.

We had looked very hard at many alternatives of a single site. If

we had to recreate the armament community from scratch today, that is probably what we would do. But going from the status quo, the costs for doing that were approximately twice the costs of the two-site alternatives, one of which we chose.

The turbulence of people reached in the order of 10,000 people, again almost twice the total number of people eliminated in the selected alternative.

We concluded that the disruptiveness of such a thing would be beyond the capability, perhaps, of the Army's program to absorb. Therefore, we tried to seek a solution which would give us the maximum operational effectiveness with reasonable management efficiencies and yet accomplish all of our essential objectives.

It is that kind of thing that led us to the particular selection.

Now, we tested that out with what we call an AMARC revisited. The committee came back approximately a year ago, in July 1975. We told them then, among many other actions we had taken, the results contained in the report and asked how they felt about the two-site alternative which we had chosen, in view of their strong recommendation for a single site?

When they saw the data, I have the impression they were quite in agreement with the Army's evaluation, since AMARC admitted they did not have an opportunity to go into cost and other consequences.

That is basically the reason why we ended up where we did.

Mr. McEwen. Do you foresee a future realinement that would ultimately lead to one location?

Mr. Gale. Not now, sir, I do not foresee that.

I do foresee that after 4 or 5 years we will want to reach for stability in the system and we have no current plans whatsoever to try to do anything further beyond this.

Mr. McEwen. Have you carefully chosen these locations for attractiveness to high-caliber professionals, availability of adequate facilities and real estate, proximity to academic institutions, and accessibility to transportation as recommended by the AMARC team?

Mr. Gale. The attraction of high caliber personnel and the potential for professional growth (availability to academic institutions) of the new organization's employees was an Army objective in the consideration of all alternatives; and we feel, in fact, it was very adequately met by the selection of the decision alternative. All sites, in addition, are well endowed with suitable transportation and available housing.

ENGINEERING IN SUPPORT OF PRODUCTION

Mr. McEwen. What is being done to retain minimum essential engineering functions at other arsenals to support required production activities?

Mr. Gale. I have to give a lot of credit to the reports received from the congressional delegations on this subject.

Several of the reports that we received from the congressional delegations endorsed a more deliberate support to production than our initial plans had indicated.

We had subsequently taken steps to revise the alternatives in order to effect such support.

All producing elements in the arsenals are now adequately supported by technical and engineering personnel.

I want to point out, for instance, that at Rock Island the ARMCOM Logistics Engineering Directorate supporting the production there will be staffed by approximately 200 people. And at Watervliet, of course, the Benet Laboratory will continue to support the gun-tube production activities up there.

COSTS AND SAVINGS OF ALTERNATIVES

Mr. NICHOLAS. I might point out, going back to your earlier answer, and you may comment on this for the record, that the high costs were costs to the Army military construction program. If it is looked at, I believe, from the point of view of economic cost to the Government, if costs and savings are discounted, the costs and savings are relatively comparable in terms of a one-site proposal at Aberdeen-Edgewood versus the alternative which you have come up with.

Comments on that for the record, if you will.

General WRAY. Yes.

[The information follows:]

Shown below are the estimated (1) one-time costs, (2) annual steady State operating savings, and (3) present value costs for the three preferred alternatives. The present value costs represent the present value of the total estimated 15-year operating cost under each of the listed alternatives. The estimated MCA costs are listed as a component of the total one-time cost.

ESTIMATED COST

[In millions of dollars]

	1-time cost (MCA)	Annual operating savings	Present value cost
Alternative:			
3	(78) 161	72	2,505
5	(54) 126	42	2,560
5A	(37) 86	42	2,501

The above data shows that due to the compensating effects of increased savings with increased one-time costs there is a strong tendency for similar resulting 15-year operating costs regardless of the alternative. It must be pointed out, however, that the rejection of the single site alternative was not based on the increased one-time cost alone, but additionally considered was the massive personnel turbulence, community impacts and high potential risk for mission program disruptions in the near term.

EXTENT OF CONSOLIDATION

Mr. MCEWEN. It is obvious from what we have heard that the Army has gone a long way from the original concept of an armaments development center at a single location.

Our questions will be directed to whether you have gone so far from this concept as to eliminate most of its advantages or, if there are sufficiently strong arguments against such a single site, whether these arguments or others indicate that it is advisable to have even more locations involved in armament development. Briefly, why do you feel it is wise to go this far and no farther?

Mr. GALE. All suitable single-site locations would have incurred very heavy personnel turbulence with attendant high risk of serious mission and program disruptions for the short term and midterm. In addition, the high one-time costs were inconsistent with the pre-

vailing economic environment at the time of the decision. The Army feels that by choosing a two-site location with the addition of laboratory support activities for support of production at Watervliet Arsenal affords the possibility of obtaining all the essential goals visualized by AMARC at a relatively lower cost, lower program risk, lower personnel turbulence and best all-around opportunity for improving the acquisition process.

In the selected alternative, the critical consideration, which in our management judgment makes this a wise action, is the fact that almost all of the large caliber weapon systems laboratory and all of the small caliber weapon systems laboratory, the bulk of the supporting elements and the headquarters, will be at one location. This consolidation provides the essential management efficiencies and opportunity for mission effectiveness by joining the weapon, fire control, ammunition, and fuze components in systems-oriented laboratories capable of quickly reacting to mission needs and mission workload fluctuations.

WEAKNESS IDENTIFIED BY AMARC

Mr. McEwen. What weaknesses did the AMARC team identify which are applicable to the armaments area with regard to laboratory mission effectiveness and laboratory management under the organization, geographic location, facilities, and staffing which existed at the time of their study. Provide their comments in these areas for the record.

(The information follows:)

Weaknesses identified by AMARC team which are generally and specifically related to the armaments area.

Laboratory Mission Effectiveness

Problems and tasks concerned with logistic and readiness missions demand a major portion of most commodity commands' resources and often overshadow materiel acquisition in competition for management attention.

Significant segments of the total work program carried out by many Army in-house laboratories are not effectively directed toward support of Army missions. Work performed consists of a mixture of assigned missions as well as self-generated programs and solicited projects. The proportions vary at different activities. Sometimes the program mixture is substantially influenced by self-interest and professional survival.

Small-caliber weapons and munitions development is fragmented between Frankford and Rock Island Arsenals. The Army's small-caliber weapons are developed at Rock Island Arsenal and the ammunition and fire control at Frankford Arsenal, with attendant lack of coordination resulting from separation in responsibility and geography.

Rock Island's Rodman Laboratories are not adequately endowed to perform the Army's weapons R&D program. The R&D assets at Rock Island's Laboratories are ineffective for building the required conventional weapons technology base.

Frankford Arsenal does not have responsibility for any system research and development project; its many small and somewhat unrelated efforts fail to provide a sense of overall purpose. In several laboratories, e.g., MICOM Laboratories, Edgewood Laboratories, Feldman Laboratory (Picatinny Arsenal), and Night Vision Laboratory, it was very obvious that good leadership merged with significant mission assignments resulted in a productive environment.

Laboratory Management Problems

(1) For most laboratories there is inadequate interaction with the user. Often the laboratory thinks of the user as the creator of the requirement which initiates their program and thereafter as a factor to be tolerated. As a result, some promising ideas lead to impractical systems not well matched to field use, while other good ideas are often stifled because development managers claim, "There is no immediate requirement." Some laboratories have commendable programs of interaction with the user (TACOM's informal but productive working relation with the Armor Center, for example) whereas others, in some cases for lack of full-system responsibility, have not developed meaningful user relationships. Yet, the team sensed a progressively increasing appreciation of the value of real-world experiences in the equipment development process.

(2) The utilization of other defense or government laboratories was generally very limited. Excellent examples of good usage were found in MICOM's liason functions with AEC and Air Force, and AVSCOM's excellent cooperative effort with NASA R&D personnel and facilities. The equipment managers often have difficulty in identifying all applicable technical data and expertise in other laboratories. In general, managers in the laboratories do not appear to question critically the extent to which a specific R&D requirement could be or has been accomplished in other laboratories.

(3) There is widespread agreement on the virtues of being able to evaluate laboratories; however, there is no known standard procedure for the qualitative and quantitative measurement of the output of Army laboratories. The difficulties of such measurements were reported almost everywhere, although individual laboratories have devised a variety of methods (mostly subjective) to assess their relative merits in particular project areas. Measures to date have included some or a combination of the following:

(a) Milestones accomplished.

(b) Objectives achieved.

(c) Accomplishment of work-break-down tasks.

(d) Number of concepts transferred to approved project level.

(e) Number of items type classified.

(f) Frequency of customer return business.

(g) Inspection, review, discussion of tasks.

(h) Cost-schedule-control-system guidance criteria.

(4) The translation of in-house laboratory-created ideas--not specifically solicited--to potential Army concepts is at best difficult and generally poorly defined. In those exceptions where knowledgeable military personnel are integrated into the laboratory staff and can serve as "idea-to-concept" translators, the opportunities for success have been markedly improved. Innovations and creative concepts are not programmable but should be considered as very precious commodities; nevertheless, the majority of the laboratories do not have satisfactory means to either encourage or promote them through higher echelons.

(5) The constraints imposed by government and Army manpower regulations often frustrate effective management of laboratories and arsenals. Some commodity commands, with REFLEX, have had superimposed upon them both manpower ceilings and reductions in average grade with very serious effects on the retention of "new blood." This is further complicated by lower entrance salaries for scientific and engineering personnel in government compared to industry. Many organizations report seriously distorted capabilities after having been subjected to manpower or RIF selection-out processes. The efficiency of in-house activities is often damaged by the imposition of independent mandates on manpower, tasks, and funds.

Mr. GALE. I might just mention the highlights now. AMARC mentioned that our laboratories are often not effectively directed toward support of Army missions, but particularly they mentioned that the small caliber ammunitions development is fragmented between Frankford and Rock Island Arsenals, and that the Rodman Laboratories are not adequately endowed to perform the Army's R. & D. effort and that the R. & D. assets at Rock Island are ineffective for building the required conventional weapons technology base.

They also mentioned that Frankford Arsenal does not have responsibility for any system research and development project, that its many small and somewhat unrelated efforts fail to provide a sense of overall purpose.

In regards to problems, they mentioned the inadequacy of interaction with the users. They mentioned the lack of utilization with other defense laboratories and they also mentioned the relative difficulty of conducting laboratory evaluations.

SMALL CALIBER WEAPONS LABORATORY

Mr. STEED. Could not weaknesses at Rodman, lack of direction at Frankford, and fragmentation be cured by consolidating the functions of these two labs at one or the other location into a small caliber weapons laboratory?

Why not?

Colonel DOYLE. Sir, those very alternatives were evaluated in the Army's study completed and published in December of 1974.

You may recall an alternative six which had a small caliber weapons laboratory at Rodman, and alternatives seven and eight which had the small caliber weapons laboratories at Frankford. They were not favorably considered because they do separate like technologies. That is, you have fuses at Picatinny, fuses in Rock Island, shell metal parts at Picatinny and at Rock Island.

You wind up with a split technology base. There are no compensating advantages or economies that would result and we provided full coverage in the study of the detailed consequences.

Mr. NICHOLAS. Are you saying this is a question of economics then? That you are trying to economize on support functions of the two laboratories?

Could you by consolidating a small caliber weapons laboratory at one or the other locations eliminate the major problems which your AMARC seems to feel exist under the current situation?

Are you merely trying to save personnel or save spaces or save machines or facilities?

Colonel DOYLE. Technology interchange, if I may use that term, is lost. That is, the people in like scientific disciplines are at two locations when ideally they should be side by side, exchanging whatever developments and ideas they have.

[Additional information follows:]

Saving of revenues was not the primary motivation but only a welcome addition to achieving operational improvements.

Mr. NICHOLAS. Could you give us some examples of what you mean by technology interchange, for the record?

Colonel DOYLE. All right.

[The information follows:]

For each major research and development task several unique areas frequently exist which involve technologies critical to the conduct of the work effort. Examples of generic critical technologies involving armaments are kill mechanisms, explosives, fuzing, materials, aerodynamics, and electronics, to mention several. In the "guns and bullets" business one of our principal concerns is cannon munitions. This type of system involves technical concerns like combustion chamber, forcing cone (for example, charge design), tube travel, launch regime, range, and target. These concerns involve a host of problems, their causes, and the underlying detailed technical work. For example. range precision involves sensitivity to wear, which involves projectile launch yaw. which is affected by the mechanism of gun barrel erosion, muzzle device technology, and other things. The resolution of such interfaces requires that systematic effort be applied in scientific and engineering disciplines such as electronics, aerodynamics. metallurgy, mechanical and industrial engineering, chemistry, physics. engineering mechanics, mathematics. and information systems. To accomplish this. we must assign recognized experts to these areas. These assignments, whether full time or ad hoc, involve a need to assure a critical mass of talent with a high frequency and intensity of interaction.

Forming laboratory groups which are collocated is a proven device for Govment organizations. It provides the best opportunity for assuring that effective technical interchange can take place and is. in fact, encouraged and facilitated. Several outstanding examples of such laboratories exist in the Federal system. for example, Navy Research Laboratory. the laboratories at Wright-Patterson Air Force Base, the National Institutes of Health, and the National Bureau of Standards. On a smaller scale, the laboratories making up the U.S. Army's Night Vision Laboratory are representative of the effectiveness of this arrangement.

Organizing in this manner provides a forum for extensive formal and informal exchange of information essential for progress and pertinency in addressing large and small-caliber armament systems. In other words, our electronics experts perform more effectively when they have ready access to packaging experts; our mathematicians' work is more useful when they interface with aerodynamics specialists; and our guidance personnel react more meaningfully when encouraged to utilize improved optics technology.

Mr. NICHOLAS. It would still seem this might not be as important as overall lack of direction, lack of resources, just not getting it together.

tion process is the issue.

AMARC ON MISSION-ORIENTED DEVELOPMENT CENTERS

Mr. STEED. What was the AMARC team's major recommendation with regard to mission-oriented development centers, and what was their recommended plan for evolution to development centers?

Provide details for the record.

[The information follows:]

Below is a direct quote of AMARC Teams major recommendation, followed by the plan for evolution to Development Centers:

> Major Recommendation. The Army should evolve toward consolidation of its AMC laboratories into mission-oriented development centers for RD&E and materiel acquisition, with the logistic and readiness functions performed in logistic centers. In addition to laboratories, the development centers would also contain consolidated installation and commodity command RD&E elements, project managers, support elements, selected user elements, and command elements. A separate section (Section C) is devoted to a more detailed description of this major recommendation.

RECOMMENDED PLAN FOR EVOLUTION TO DEVELOPMENT CENTERS

1. General Overview.

a. The proposed concept for restructuring the in-house Army laboratory activities arises from the findings based on our visits to nearly all R&D activities (See Annex C). Although the present commodity command structure has just been reorganized within the last year and insufficient time has passed to determine its merits, we feel that more comprehensive changes are required in the materiel R&D process. This plan is specifically intended to increase the quality of the Army's materiel and maintain a substantive readiness posture with reduced personnel and resources.

b. It is the explicit goal of this plan for AMC to build its weapons and materiel acquisition process on the development center concept, with separate logistic centers for the logistic readiness mission. The research, development, and initial production buy of systems and equipment would be carried out by six development centers with coherent major mission responsibilities. We believe efficiency requires that the number of logistic centers be significantly smaller than the number of development centers.

c. We consider the development center concept essential in order to capitalize on the success stories both in government (including the Army) and the private sector that result when challenging missions, capable people, and energetic management are functioning in the same environment. The evolution into development centers by the consolidation of laboratories, RD&E elements from installations and commodity commands, project managers, related user elements, support elements (to include dedicated procurement and civilian personnel offices), and command elements will remove the geographic barriers which now exist in several commodity command headquarters and laboratories. This consolidation, particularly for those activities now fragmented, will maximize the utility of AMC's RD&E resources, including the many exceptionally qualified scientific and engineering personnel, and ultimately should provide the following advantages:

(1) More effective "critical mass" of technical talent, expediting consultation, broadening career opportunities, and facilitating civilian personnel management.

(2) Large demanding missions challenging the work force, providing them a sense of valuable contribution, stabilizing insfallation funding fluctuations, and minimizing invention of insignificant "job security" efforts.

(3) More effective equipment being fielded at less overall cost resulting from reduced in-house manpower, closer coordination of subsystem developments, savings in travel expenditures, and more efficient transfer of systems technology to industry.

(4) Substantially faster response to intensified needs or critical problem areas due to greater flexibility of scientific and engineering resources.

(5) Expanding opportunities for innovative and creative ideas to surface for potential military application.

(6) More realistic estimating of program options, risks, performance and schedules by more effective coupling of internal expertise to the acquisition process.

(7) Reduction in overhead costs resulting from shared and more fully utilized support activities, such as security, safety, quality assurance, drafting and machine shops.

d. The Army's armaments program is a particularly good example to illustrate these benefits which could be derived by consolidation into a development center.

(1) In the armaments area, research and development is fragmented among four arsenals. Small arms are at Rock Island, small caliber ammunition at Frankford, large caliber tubes at Watervliet, and large caliber ammunition at Picatinny. The problems concerned with technical coordination of developments, efficient management of resources and personnel, and imparting a sense of challenge and purpose result, in large measure, from the existing geographic fragmentation of effort.

(2) Consolidation of small arms weapons with the ammunition and consolidation of large caliber tubes (and carriages) with large caliber ammunition are both clearly indicated to achieve design and development coordination. Additionally, there are many common disciplines to both small and large caliber systems, such as propellants, ballistics, and metallurgy, which indicate further opportunities to be gained from complete consolidation.

e. We do not wish to imply that there are no "costs" associated with the attendant missions realignment and relocation activities which the implementation of these recommendations would require. It must be anticipated that temporary difficulties, delays, dollar outlays and personnel dislocation problems will be encountered. In fact, the recommended plans will also invoke political reactions as well as some serious employee resistance. To find effective and equitable solutions to these organizational and facility problems will be a continuing and challenging task of Army management.

f. It is recognized that the full implementation of the proposed concept will require the preparation of more detailed plans and a deliberate will on the part of management in order to achieve its goals; however, the effort should result in rewarding dividends for future combat effectiveness of the Army, especially in an environment which compels increasing productivity with reduced resources.

Mr. STEED. Is geographical collocation necessary to allow a development center to function with consolidated command R.D.T. & E. elements, project managers, support elements, selected user elements, and command elements?

If so, why have you opted for three locations?

Colonel DOYLE. This is somewhat similar to the question previously asked Mr. Gale.

The ideal is a single location where the like technologies are together, where workload can be shifted or personnel shifted to meet varying workloads, and where management is on top of the operation full time.

We had to depart or felt it was prudent to depart from that ideal in this instance. In the case of Edgewood, even AMARC recommended not trying to move that because of the peculiar facilities associated with the chemical development and testing.

In the case of the Benet Laboratory at Watervliet, it's a unique and involved relationship with the sole large gun tube production facility in the United States, and that made it an exceptional case.

Mr. NICHOLAS. Expand on that for the record, because from the outside it is difficult to understand why that is a different situation.

[The information follows:]

The amount of involvement of Benet Laboratory's technical people in the actual production is of an extensive and immediate nature.

There is a very substantial relevance of the R. & D. activities to the gun tubes manufactured by the arsenal. Since the design and development of large-caliber weapons at times can only be improved by modifying the fabrication process, production machine tool equipments and facilities in place at Watervliet are utilized for the purpose of developing the process. Examples of such process developments at Benet Laboratory are:

The rotary forge integrated production line, which is centered around the rotary forge machine for gun tube fabrication.

The development of the autofrettage pressure process to prestress cannon tubes for improved fatigue life performance, requiring deep pits and high bay buildings.

The only facilities in the Free World which permit simulation of the interior ballistic cycle for gun tubes.

A high-pressure cryogenic facility has also been designed, built, and installed in the laboratory; the first of its kind placed in operation for high pressure scientific experiments in the United States.

Mr. STEED. What were the specific comments of the AMARC team with regard to the benefits to be derived by consolidation into a development center in Army's armament program?

Provide details for the record.

[The information follows:]

The information appearing below is quoted from the AMARC Report.

"This consolidation (into development centers), particularly for those activities now fragmented, will maximize the utility of AMC's RD&E resources, including the many exceptionally qualified scientific and engineering personnel, and ultimately should provide the following advantages:

(1) More effective "critical mass" of technical talent, expediting consultation, broadening career opportunities, and facilitating civilian personnel management.

(2) Large demanding missions challenging the work force, providing them a sense of valuable contribution, stabilizing installation funding fluctuations, and minimizing invention of insignificant "job security" efforts.

(3) More effective equipment being fielded at less overall cost resulting from reduced in-house manpower, closer coordination of the subsystem developments, savings in travel expenditures, and more efficient transfer of systems technology to industry.

(4) Substantially faster response to intensified needs or critical problem areas due to greater flexibility of scientific and engineering resources.

(5) Expanding opportunities for innovative and creative ideas to surface for potential military application.

(6) More realistic estimating of program options, risks, performance and schedules by more effective coupling of internal expertise to the acquisition process.

(7) Reduction in overhead costs resulting from shared and more fully utilized support activities, such as security, safety, quality assurance, drafting and machine shops.

The Army's armaments program is a particularly good example to illustrate these benefits which could be derived by consolidation into a development center.

(1) In the armaments area, research and development is fragmented among four arsenals. Small arms are at Rock Island, small caliber ammunition at Frankford, large caliber tubes at Watervliet, and large caliber ammunition at Picatinny. The problems concerned with technical coordination of developments, efficient management of resources and personnel, and imparting a sense of challenge and purpose result, in large measure, from the existing geographic fragmentation of effort.

(2) Consolidation of small arms weapons with the ammunition and consolidation of large caliber tubes (and carriages) with large caliber ammunition are both clearly indicated to achieve design and development coordination. Additionally, there are many common disciplines to both small and large caliber systems, such as propellants, ballistics, and metallurgy, which indicate further opportunities to be gained from complete consolidation."

Mr. STEED. Of the advantages cited by AMARC from creating a development center, which ones are primarily dependent on geographic collocation?

Is 80 miles from Frankford to Picatinny too far to allow these benefits to take place?

Colonel DOYLE. Again at the risk of overlapping partially on a previous question, economy; for one, there are no economies of consolidation that would be affected as long as the two separate installations are maintained.

Again the technology interchange is interrupted by an 80-mile gap. That keeps people out of touch day in and day out. It is a trip, 160-miles, to go back and forth.

The AMARC itself and the laboratory directors who have worked with that committee recognize this in recommending that organizations be consolidated rather than, for example, keeping Frankford and Picatinny both in business.

EFFECTIVENESS OF EXISTING LABORATORIES

Mr. STEED. To what extent have the consolidations which the Army is now proposing or not proposing for its armaments development center influenced by the past performance of certain laboratories and by the desire to either change management or personnel to bring in new direction and new blood to organizations which have not been performing while avoiding the disruption of those laboratories which have been productive?

Mr. GALE. Let me address this.

I was directing laboratory activities for several years. We attempted also to institute a peer group rating system in our materiel laboratories.

It is fair to say that within the armament community the full spectrum of laboratory rankings is represented by those laboratories; meaning that some of them are consistently near the bottom, some of them are consistently near the top, and many of them are in between.

I want to be sure to recognize, however, that within each of these laboratory units there are cells of excellence and cells of mediocrity. In some cases even incompetence, I guess.

The reorganization is trying to rescue and to build on good, wherever we can find good. There was no deliberate attempt made to cut down one organization or build on another one because of some kind of adjective yardstick.

But there was certainly an attempt made, and there will always be an attempt made to build your organization core around as good a staff, as productive an organizational element as you can find. I think that is good management practice and I think we follow that.

SELECTION OF ALTERNATIVES

Mr. STEED. Provide for the record complete information on the selection of alternatives for the armament development center?

[The information follows:]

The Study Group generated a considerable spectrum of alternatives (Fig. A&B) in a deliberate effort to achieve improvements in the armament materiel acquisition process.

All alternatives developed in the Concept Plan were analyzed and evaluated to compare operational characteristics, personnel turbulence, costs, expected annual savings, community impact and opportunity to achieve Army objectives. Three alternatives were proposed as the preferred courses of action, considering all evaluation factors.

The concept plan was submitted to interested Congressional delegations as well as other organizations and individuals for comments and recommendations. Extensive Congressional and Public comments were received and evaluated.

The integration of the received comments and suggestions with the options proposed by the study group resulted in revised decision alternatives (Fig. C).

A summary of the rationale for establishing the order of preference of the "Study" alternatives and the revised alternatives is shown below.

Study Group Alternatives

The Study Group weighed the advantages and disadvantages of each alternative and found three that stood above the rest in terms of accomplishing Army's armament acquisition objectives; they are, in order of preference, Alternatives 5A, 5, and 3.

Alternative 3, with its great long term benefits, was ranked third because of the high degree of dislocation of the large caliber ammunition personnel with attendant increased potential for reduced capability, especially in support of production; the sharper adverse impact on one community (Dover); and the higher initial investment required. The initial investment of $138 million is not, by itself, considered a major discriminator since present value costs are comparable to the first choice alternative. Alternative 5 was preferred to Alternative 3 because it avoids the dislocations cited above, yet provides an excellent opportunity for a partial fresh start. Alternative 5A was preferred to Alternative 5 because (1) the headquarters would be collocated with the two principal weapon systems laboratories which constitute 70 percent of the new command's population, (2) its relatively easy to implement and (3) top management is located where it can directly influence generation of a "fresh start."

Revised Decision Alternatives

The primary selection rationale, as stated in the decision documentation, rejected all other alternatives in favor of 5AM for the following reasons:

5AM provides the best opportunity for achieving the Army's armament materiel acquisition objectives, and achieves signi ficant annual operating savings.

Internal interfaces, workforce flexibility, external interfaces and "fresh start" are rated "good" to "excellent", outranking all other alternatives except alternative 3.

Estimated transfers requiring a geographic move are lowest in this alternative. Recruitment needs are also lower than for other alternatives.

Personnel separations through reduction in force are the lowest of alternatives under consideration.

PRIMARY ALTERNATIVES CONSIDERED IN CONCEPT STUDY

ALTERNATIVE	FT. IRWIN	ABERDEEN PROVING GROUND	PICATINNY ARSENAL	ROCK ISLAND ARSENAL	FRANKFORD ARSENAL	WATERVLIET ARSENAL
1 (STATUS QUO)		BALLISTICS RESEARCH CHEMICAL SYSTEMS	MUNITIONS PROPELLANTS EXPLOSIVES FUZES	SMALL ARMS WEAPONS LARGE CALIBER WEAPONS	FIRE CONTROL SMALL ARMS AMMUNITION SHELL METAL PARTS FUZES	CANNON AND BREECHES MORTARS RECOILLESS RIFLES
2	LARGE CALIBER SYSTEMS SMALL CALIBER SYSTEMS BALLIS-TICS RESEARCH	CHEMICAL SYSTEMS				
3		HQ LARGE CALIBER SYSTEMS SMALL CALIBER SYSTEMS BALLISTICS RESEARCH CHEMICAL SYSTEMS				
4		CHEMICAL SYSTEMS	HQ LARGE CALIBER SYSTEMS SMALL CALIBER SYSTEMS BALLISTICS RESEARCH			

Figure A

PRIMARY ALTERNATIVES CONTINUED

Alter-NATIVE	FT. IRWIN	ABERDEEN PROVING GROUND	PICATINNY ARSENAL	ROCK ISLAND ARSENAL	FRANKFORD ARSENAL	WATERVLIET ARSENAL
5		HQ SMALL CALIBER SYSTEMS BALLISTICS RESEARCH CHEMICAL SYSTEMS	LARGE CALIBER SYSTEMS			
5A		BALLISTICS RESEARCH CHEMICAL SYSTEMS	HQ LARGE CALIBER SYSTEMS SMALL CALIBER SYSTEMS			
5B		HQ LARGE CALIBER SYSTEMS SMALL CALIBER SYSTEMS BALLISTICS RESEARCH CHEMICAL SYSTEMS	LARGE CALIBER MUNITION SUBSYS-TEMS SMALL CALIBER MUNITION SUBSYS-TEMS			
6		BALLISTICS RESEARCH CHEMICAL SYSTEMS	LARGE CALIBER SYSTEMS	HQ SMALL CALIBER SYSTEMS		
7		BALLISTICS RESEARCH CHEMICAL SYSTEMS	HQ LARGE CALIBER SYSTEMS		SMALL CALIBER SYSTEMS (NEW FA)	
8		BALLISTICS RESEARCH CHEMICAL SYSTEMS	HQ LARGE CALIBER SYSTEMS		SMALL CALIBER SYSTEMS (EXIST-ING FA)	

Figure B

REVISED ALTERNATIVES - AMENDED AFTER RECEIPT OF PUBLIC AND CONGRESSIONAL COMMENT

ALTERNATIVE	PICATINNY	ABERDEEN PROVING GROUND	WATERVLIET
3		HQ LARGE CALIBER SYSTEMS SMALL CALIBER SYSTEMS BALLISTICS RESEARCH CHEMICAL SYSTEMS	
D	MUNITIONS DEVELOPMENT (LCS)	HQ BALLISTICS RESEARCH CHEMICAL SYSTEMS SMALL CALIBER SYSTEMS LARGE CALIBER SYSTEMS (LESS MUNITIONS DEVELOPMENT)	BENET LAB (LCS)
5M	LARGE CALIBER SYSTEMS	HQ BALLISTICS RESEARCH CHEMICAL SYSTEMS SMALL CALIBER SYSTEMS	BENET LAB (LCS)
5A(M)	HQ LARGE CALIBER SYSTEMS SMALL CALIBER SYSTEMS	BALLISTICS RESEARCH CHEMICAL SYSTEMS	BENET LAB (LCS)
9(M)	LARGE CALIBER SYSTEMS (LESS WEAPONS DEVELOPMENT)	HQ BALLISTICS RESEARCH CHEMICAL SYSTEMS SMALL CALIBER SYSTEMS	WEAPONS DEVELOPMENT (LCS)

Figure C

DISRUPTION VERSUS FRESH START

Mr. STEED. There is a seeming difference between the AMC Committee on Armament's report and the AMARC report on the desirability of avoiding disruption to ongoing operations with attendant increased potential for reduced capability, especially in support of production.

Could you discuss the pros and cons of such disruption versus a fresh start with regard to large caliber weapons systems and small caliber weapons systems?

Colonel DOYLE. The "fresh start" concept of the Army study group is consistent with AMARC's visualization of "expanding opportunities for innovative and creative ideas to surface for potential military application." Neither concept advocates disruption for its own sake; on the contrary, both AMARC and the Army want to minimize disruption of programs in the large caliber and small caliber systems while, however, improving the professional and operational environment under which these programs are carried out. To safeguard against disruption of production activities, the technical and engineering personnel in support of production were allocated in accordance with the planners representing materiel readiness and logistics missions and will be available at the producing arsenal sites. For instance, the Logistics Engineering Directorate at Rock Island Arsenal, consisting of over 200 personnel, will provide such support and the Benet Laboratory will contribute to the support of the production activities at Watervliet Arsenal.

Mr. STEED. What is the necessity of having top management of the center collocated with a laboratory with regard to its ability to directly influence generation of a fresh start?

Colonel DOYLE. The importance of having management on the site stems from the fact that in getting off to the fresh start, we are trying to reorient attitudes, recognizing that the large portion of the work force, including the scientists and engineers, will have worked under the existing system and we are now asking them to take a different orientation. It provides a better understanding, face-to-face contact between the management, which is bringing in new management theory, and the people who have been in the system.

It provides greater opportunity for exchange between the employees themselves, and this is a goal of management. This keeps management better informed and in a better position to get the feedback from the work force on whether the new ideas are taking or whether they are not.

WATERVLIET ARSENAL

Mr. STEED. What considerations caused the Army to change its mind with regard to the continuation of research and development activities at Watervliet Arsenal?

Mr. GALE. We determined that the support to production of Benet Laboratory to Watervliet Arsenal is of essential and critical significance to the Army's mission in the manufacturing of gun tubes and related fabrication processes. I will provide additional information on the detailed involvement of the laboratory-production relationship in answering Mr. Nicholas' earlier request for information for the record.

EXTENT OF CONSOLIDATION AND DISRUPTION

Mr. STEED. To what extent did considerations of potential reductions-in-force, transfers, or recruitment outweigh considerations of better management, lab productivity, and economy in the Army's final decision?

Mr. GALE. In selecting the Army's course of action, I think we were particularly keen on minimizing the risk of skill loss, as we said earlier, and minimizing, to as prudent an extent as possible, the personnel turbulence.

We have been characterized sometimes here today as if we got some kick out of creating personnel turbulence problems. Of course, that is not true.

The decision alternative we believe provides the opportunity for achieving this increased productivity that we are looking for; provides for better management and for operational savings, even though we are aware of the fact that some transfers will occur, some eliminations of jobs will occur.

In fact, we will have to recruit some new people in the system. We tried to weigh this, too.

Again going back to the single-site alternative, we tried to strike a balance here that would minimize those kinds of program and turbulence risks while at the same time accomplishing our major objectives.

Mr. NICHOLAS. Do you feel you have minimized the risk?

The statement today would indicate that the people at the laboratories, and of course it is natural for them to feel that way and for them to make the statements, feel that there is going to be a tremendous loss of capability and personnel at the small weapons laboratories.

It looks as if, particularly in the small weapons area, there is going to be a real shakeup and relocation and the possibility of some loss of capability, whether temporary or permanent.

Have you taken all of this into account?

Have you taken a worst-case situation and a best-case situation? In looking at the transfers of activities which you still propose to make, have you really objectively said, "Yes, we feel even in the worst-case situation that the management gains which we are expecting outweigh the loss of expertise?

Mr. GALE. I can say that we presently feel comfortable about the fact that the implementation planning, evolutionary as it is, has tried to the maximum extent possible, and I say tried because nobody can be perfect in this area, to avoid this kind of disruption and to maintain a continued posture of readiness.

[Additional information follows:]

This maintenance of readiness applies to the transition period. We cannot postulate a "worst case situation" which would not improve our situation over the status quo.

Mr. GALE. Now, when you are within these four walls here it seems like there is only employee opposition in the works for us. However, I am often closer to the subject. Very often I exchange information with people in the armaments laboratory community.

In fact, there is quite a large supportive reaction in many places for doing this kind of thing.

Many of our employees are enthusiastically looking forward to some of these changes which are coming about.

COSTS, SAVINGS, PERSONNEL IMPACT BY INSTALLATION

Mr. STEED. Provide for the record the costs, savings, and personnel impact by installation for the alternative selected.

[The information follows:]

The table below shows the planning data as stated in the decision documentation for the Armament R&D Command realignment, (formerly Armament Development Center). The Savings are stated only for the total organization. All organizational elements contribute to the improved efficiencies (savings) and savings for individual Arsenals would not represent a meaningful figure, since, in general, the consolidations of functions from various installations account for the reduced operational costs.

Installation	One-Time Costs (Including MCA shown in brackets) ($000)	MCA Cost Avoidance ($000)	Annual Savings ($000)	Community Impact (Civilian Personnel) Gains	Losses	Net Change	(Military Personnel) Gains	Losses	Net Change
Watervliet Ars.	448(0)	-		0	104	-104	0	2	-2
Frankford	17,837(0)	4,335		0	2740	-2740	0	25	-25
Aberdeen/ Edgewood Ars.	2,699(0)	-		238	679	-441	5	9	-4
Picatinny Ars.	54,564(34,143)	-		2218	1154	+1064	75	38	+37
Rock Island Ars.	9,907(3,822)	5,261		644	1084	-440	3	48	-45
Other	542(0)	-		49	0	+49	0	0	0
TOTAL	85,987(37,965)	9,596	37,000*						

*Does not include $5M that accrued from workload reduction.

SCHEDULE

Mr. STEED. What is the presently proposed milestone schedule? Provide details for the record.

Also show for the record how this compares to the schedule set forth in the December 1974 AMC Committee-Armament report.

[The information follows:]

The summary milestone schedule on the AMC Committee-Armament Report is shown below, with the presently proposed milestone schedule shown in brackets.

	MILESTONE	DATE
D-Day	Announce ADC Concept and Decision to implement.	1 Jul 75 (2 Dec 75)
	Establish Provisional ADC Headquarters with top management and planning staff to include civilian personnel, movement, technical, and other supporting administrative elements.	
D+1 mo	Establish task forces to accomplish detailed planning for activation of ADC and building up its capabilities.	1 Aug 75 (1 Apr 76)
	Initiate talent search for key leaders.	(1 Apr 76)
	Plan for new construction and renovation programs.	(1 Aug 75)
	Establish Civilian Personnel Office and nucleus of Procurement Office.	(1 Oct 76)
	Continuously coordinate with Logistics Command.	(1 Nov 75)
D+4 mo	Submit MCA budget.	1 Nov 75 (1 Mar 76)
D+6 mo	Select laboratory directors and start recruiting second level management.	1 Jan 76 (1 May 76)
	Establish teams at losing and gaining sites to assist in relocation of individuals, programs, and equipment.	(1 Feb 76)
A-Day (D+9 mo)	Activate ADC.	1 Apr 76
	Assume budget authority and full responsibility for RDE programs.	(1 Oct 76)
	Assume control of development PMs.	
	Start movement of fire control, small arms ammunition, mechanical time fuzes, shell metal parts, and supporting technologies from Frankford.	(1 Nov 76)
	Start movement of relatively new developmental programs from Rodman Laboratories.	(1 Nov 76)
A+12 mo	Complete movement from Frankford and new programs from Rodman.	1 Apr 77 (30 Sep 77)
A+18 mo	Establish Armament Institute.	1 Oct 77 (1 Jan 77)
A+24 mo	Complete all systems management movement to ADC.	1 Apr 78 (30 Sep 78)
A+48 mo	Consolidate all activities at ADC.	1 Apr 80
	Initial MCA complete.	(31 Jul 80)
	ADC reaches "steady state" condition.	

EFFECT OF CONSTRUCTION DEFERRAL

Mr. STEED. What would be the effect of this schedule and upon costs and savings if the construction requested here, except for minor construction, were deferred to the fiscal year 1978 program?

Colonel DOYLE. We would be continuing operation in our present inadequate way with the known ineffectiveness and inherent inefficiencies. For each year of slippages, we would forgo cost savings, estimated at $36.8 million in the Army studies. Added payroll costs per year are estimated at $6 to $12.8 million.

The precise effect on implementation phasing is not known at this time, however; the implementation of realinement actions would continue including the planned closure of Frankford Arsenal. The program stretch out, interrupted phasing, and reduced available funding would be a serious blow to the amount of research and development activities. Also as stated in my opening briefing, it would result in additional hardship to personnel involved in transfers, and additional loss of personnel, all contributing to adversely affect the Army's mission capability.

CONSTRUCTION REQUIRED

Mr. STEED. Provide for the record a complete listing of construction projects in connection with the armament community realinement.

[The information follows:]

The following projects comprise required construction to support planned Army community realinements:

Title	Fiscal year	Cost (CWE) (thousands)
Fuze metal parts facility	1976	$435
Physical sciences lab, phase I	1976	999
Prototype facility	1976	2,236
Fire control lab	1976	996
Technical data facility	1976	1,658
Optics prototype facility	1976	776
Test measurement and diagnostic equipment facility	1976	6563
Physical sciences lab, phase II	1978	5,662
Energetics lab	1978	755
Pyrotechnics lab	1978	15,341
Administration/engineering lab	1978	2,768
Alterations, Rock Island	1978	2,208
Building conversions	1979	2,206
Total		36,363

All work listed is at Picatinny Arsenal, Dover, N.J., except for the one project listed at Rock Island Arsenal, Rock Island Ill. This latter project is currently estimated at $7,780,000 total, of which $2,768,000 is attributable to this realinement action. The balance is required for other requirements at the installation.

PROPOSALS EVALUATED

Mr. STEED. What other proposals have been forwarded to the Army by the installations and communities affected by these realinements, and how carefully has the Army considered these proposals?

Mr. GALE. Specific proposals were received from the following sources:

Iowa/Illinois congressional delegation including also a report from the Quad-City task force.

New Jersey congressional delegation.

New York congressional delegation including also a consultant's report.

Maryland congressional delegation.

City of Philadelphia and Commonwealth of Pennsylvania.

City of Philadelphia congressional delegation (outline).

City of Philadelphia congressional delegation (final report).

In addition to these proposals, virtually thousands of comments were generated by public organizations and individuals. All comments and proposals were evaluated in detail and replies were provided. Appropriate parts of several proposals were subsequently structured into new or modified alternatives. The review and evaluation process for all solicited and unsolicited proposals, comments, and critiques was deliberately structured to objectively assess all responses. The Department of the Army had many thousands of man-hours invested in this process in order to insure its adequacy.

Mr. STEED. What is the Army's estimate of the effect upon its ability to effectively manage research and development in armaments under these various proposals?

Mr. GALE. I can say we have received very excellent proposals from the Illinois, New Jersey, New York, and Maryland delegations and at least three proposals from the Pennsylvania delegation, and two from the Iowa and Illinois delegations which came bound as one.

As I said earlier, we have benefited to some extent by all of these proposals. We have analyzed all the issues and have made a report of those issues back to the originating organization, which was accompanied by a letter from the Secretary of the Army on the day of the announcement, December 2, 1975.

I also must say that we haven't found any of the proposals suitable in their entirety for adoption, but we did adopt certain recommendations from proposals which we received.

Mr. STEED. What are the Army's estimates of the costs or savings which would result from implementing these proposals, and how carefully have these been validated?

Mr. GALE. As I previously stated the proposal review process was a careful and deliberate attempt as directed by the Secretary of the Army. Therefore, the financial and cost data contained only in some of the proposals were subjected to independent cost reviews utilizing the best available data related to such costing at the time of the reveiw. For example, the latest proposal on Frankford was found to have the nonrecurring cost estimated to be $17.1 to $0.1 million less than the applicable portions of the ARRADCOM realinement. On the other hand, the Frankford proposal showed an increased annual operating cost of $10.1 million.

The detailed answers given to each proposal are extremely voluminous. In some cases costs could not be analyzed because the proposals were very general. I would be pleased to make available to the committee copies of our response to each proposal if you would like them.

DETAILS ON $7,363,000 CONSTRUCTION REQUEST

Mr. STEED. Provide for the record the work proposed for the $7,363,000 requested here. Show the purpose of each facility, the buildings being rehabilitated, the scope of each project, and the cost for each facilitiy.

[The information follows:]

Prototype Facility - $2,236,000 - Building 3150. This project will convert an existing general warehouse to a large caliber ammunition metal parts fabrication facility, a small caliber ammunition metal parts fabrication facility and a small caliber weapons prototype facility. 94,000 square feet will be rehabilitated and an addition of 22,850 SF of pre-engineered building will be added to the south end. Rehabilitation will consist of partitioning as well as expansion of heating and lighting, electrical power, sanitary facilities and supporting facilities. The total of 116,850 SF is a change in scope from the 110,600 SF shown on the DD Form 1391 and reflects the current design status. The change can be accomplished within the amount of requested funds.

Physical Sciences Lab-Phase I - $999,000. Rehabilitation of buildings 315, 316, 318, 353, 354 and 1609 to include partitioning ceilings, floor covering, air conditioning and utilities. Also a 2650 square feet addition is to be constructed to Bldg 353 to be used as a laser lab control building and elevated laser tower. A target area pad will be constructed adjacent to Building 561. Scope of the project is 73,860 square feet to include the small addition mentioned above. The Physical Sciences Lab will occupy the vacant portions of Bldg 353 (Management Information Systems Directorate will remain in space currently occupied) and the Applied Metals Lab of the Physical Sciences Lab will occupy all of Bldgs 354, 315, 316, 318 and 1609. The latter includes a Mechanical Metallurgy Section, a Powder Metallurgy Section, a Casting/Foundry Section, a Thermal Mechanical Section, and a Corrosion and Plating Section. Also a Physics Laboratory will be located in Bldg 353. Bldg 353 was constructed in 1939 as a storage facility and cafeteria. Bldg 354 is a similar building constructed in 1940 and converted to a finance/admin and engineering/admin facility in 1956. Bldgs 315, 316 and 318 were constructed in 1917 as storage buildings. Bldg 315 was converted in 1966 to a plant engineering maintenance shop, Bldg 316 was converted in 1965 to an ordnance facility and Bldg 318 was converted in 1963 to an administrative building. Bldg 1609 was constructed in 1942 for use as a machine shop.

Fuze Metal Parts Facility - $435,000. Rehabilitation of portions of Bldgs 31 and 61 to include partitions, air conditioning, and ceilings and floor covering in Bldg 31. A 1400 square feet addition will also be constructed at Bldg 61 to house D.C. generators. Operations to be performed in these facilities are machining, cleaning and inspection of metal parts followed by sub-assembly, assembly, final inspection and timing of the fuze prior to transfer to Bldg 210 for explosive loading. Bldg 31 was constructed in 1943 as a machine shop, its present use. Bldg 61 was constructed in 1941 as a storage facility and was converted in 1963 to an engineering/admin facility. Scope of this project is 37,960 square feet to include the 1400 square feet addition to Bldg 61.

Fire Control Lab - $996,000. Bldg 18 will be rehabilitated (3150SF) and two additions will be constructed to this building - one for an Optics Lab at 10,000 SF and another for a Dark Tunnel at 2630 SF. Also Bldg 95 (25,000 SF) will be rehabilitated. Total scope of project is 40,780 square feet. Bldg 18 was constructed in 1918 as a warehouse, its current use. Bldg 95 was constructed in 1961 as a special weapons pilot plant and is currently being used as a special weapons and general administrative facility. Operations in these buildings will consist of design, development, prototyping, testing and evaluation of unique components and systems in the fields of optics, radiometry, electro and photo optics, electronics, radar and microwave, and laser counter measure technology as applied to aircraft, air-defense, artillery, infantry, armored vehicle and small arms fire control systems.

Technical Data Facility - $1,658,000. This will be new construction of 30,000 square feet adjacent to buildings 5 and 58. Bldg 5 (4500 SF) and a portion of Bldg 58 (6500SF) are currently being used for the Picatinny Technical Data Facility. This facility will perform a full range of services in the area of technical data management including the direction, implementation and control of the centralized automated technical and configuration management data control systems.

Optics Prototype Facility - $776, 000 - 23,140SF of Bldg 91 will be rehabilitated and will house the Prototype Optical Fabrication mission engaged in the design development prototyping, testing and evaluation of unique components and systems and their application to aircraft, air defense, artillery, infantry, armored vehicles and small arms fire control systems. It will also serve as an assembly area for fire control devices. Bldg 91 was constructed in 1942 as a general purpose warehouse and office facility.

Test Measurement and Diagonostic Equipment (TMDE) Facility - $263,000. 7668 square feet of Bldg 91 will be rehabilitated for this facility. Bldg 91 is described above. The area to be rehabilitated is currently general office space diverted from warehouse space in 1966. The mission performed in this facility will include design, development, test, evaluation, procurement initial production, distribution, and utilization of support TMDE and prognostic equipment involving a high degree of automation and computer control for all variety of Armament Research and Development Command commodity component items and systems.

Mr. STEED. Provide for the record the estimated useful life of each building, the type of construction, and a description of the work to be done.

[The information follows:]

The estimated useful life of the buildings to be rehabilitated in the project is shown below: (useful life shown is in years, following this construction)

BUILDING NUMBER	ESTIMATED USEFUL LIFE
3150	35 years
353	30 years
354	30 years
315	30 years
316	30 years
318	30 years
1609	30 years
31	45 years
61	30 years
95	50 years
18	30 years
91	35 years

The type of construction for each building and the work to be done are shown below:

Bldg 3150 - This building is a reinforced concrete and hollow tile general purpose warehouse constructed in 1942. Work to be done includes partitioning, construction of an addition, expansion of heating and lighting, extension of supporting facilities and sanitary facilities for a total of 116,850 square feet. This is a change in area from the 110,600 SF shown on the DD Form 1391 and reflects the current design concept and can be accommodated within funds requested.

Bldg 353 - This is a one-story concrete and hollow tile building of 25,000 square feet with a galvanized corrugated iron roof constructed in 1939 as a storage facility. It was converted in 1956 for use as an administrative facility and cafeteria. Work to be done includes partitioning, ceiling, floor covering, air conditioning and utilities. Also a 2650 square feet addition to this building will be constructed.

Bldg 354 - This building is a one-story concrete and hollow tile building with galvanized corrugated iron roof.similar to Bldg 353 and constructed in 1940 as a storage facility. It was converted to a finance/admin and engineering/admin facility in 1956. Work to be done includes partitioning, ceiling, floor covering, air conditioning and utilities.

Bldg 315 - Single story, brick and concrete building with galvanized, corrugated iron roof constructed in 1917 as a storage building. It was converted to a plant engineering maintenance shop in 1966. Contains approximately 5,000 square feet. Work includes partitioning, ceiling, floor covering, air conditioning and utilities.

Bldg 316 - Single story, brick and concrete building of approximately 5,000 square feet with galvanized, corrugated iron roof constructed in 1917 as a storage facility. It was converted in 1965 to an ordnance facility. Work to be done includes partitioning, ceiling, floor covering, air conditioning and utilities.

Bldg 318 - Single story, brick and concrete building of approximately 5,000 square feet with galvanized, corrugated iron roof constructed in 1917 as a storage facility. It was converted in 1963 to an administrative facility. Work to be done includes partitioning, ceiling, floor covering, air conditioning and utilities.

Bldg 1609 - A single-story concerete and hollow tile building with corrugated asbestos roof constructed in 1942 as a machine shop. Work to be done includes partitioning, ceiling, floor covering, air conditioning and utilities.

Bldg 31 - A one-story and partial two story concrete, brick and tile structure constructed in 1943 as a machine shop. Work to be done includes partitions, air conditioning, ceiling, floor covering and utilities.

Bldg 61 - A one story concrete and hollow tile structure constructed in 1941 as a storage facility and converted in 1963 to an engineering administrative facility. Work to be done includes partitioning, air conditioning, ceiling and utilities. Also a 1400 square feet addition to the building will be constructed to house D.C. generators.

Bldg 95 - A steel and brick/concrete structure completed in 1961 as a special weapons pilot plant. Work to be done includes minor alterations including partitioning, suspended ceiling and electric power in 25,000 square feet. Also upgrade electric power transformers and steam conduits and extend water, sewer and drain lines.

Bldg 18 - 3150 square feet hollow tile walled and corrugated asbestos roofed building constructed in 1918 as a warehouse. Work to be done includes ceiling, floor covering, air conditioning, heating, power and illumination. Also a 10,000 square feet addition will be constructed as well as a 2630 square feet dark tunnel.

Bldg 91 - A 60,105 square feet, one-story, concrete and hollow tile structure constructed in 1942 as a general purpose warehouse. It was modified in 1966 as a general warehouse and office facility. 30,820 square feet of this building will be rehabilitated. Work includes partitions, suspended ceiling, floor covering, insulation, air conditioning, illumination and increase the power and steam generating capability.

ENVIRONMENTAL IMPACT

Mr. STEED. At precisely which stages and in what depth has the Army explored the environmental impact of each of the alternatives it has considered? Provide details for the record.

[The information follows:]

An environmental impact assessment (EIA) was prepared which addresses the realinement of the armament community, covering all applicable decision alternatives. The documents addressed all installations affected for each alternative and were issued in September 1975, for use in the decision process. The document included all required environmental aspects as well as socioeconomic factors, and an equal employment opportunity analysis. For all communities, the assessment indicated that no significant environmental impact would result from this action.

COMMUNITY IMPACT

Mr. STEED. What will be the impact on the affected communities of the Army's preferred alternative?

[The information follows:]

The personnel impact at each installation along with the on-board personnel after completion of this action are shown in the following table:

Installation	Personnel Affected (Military/Civilian)	Personnel On-Board After Completion of the Action (Military/Civilian)
Aberdeen/Edgewood	-1 / -441	3084*/8005
Frankford	-25 / -2754	0/0
Picatinny	37 / 1064	185/6489
Rock Island	-45 / -440	303/7559
Watervliet	-2 / -104	24/2576

The impact on the communities' total military and civilian payroll will be discussed in terms of the current annual payroll, the annual payroll after realignment and the net change in total payroll.

For Aberdeen Proving Grounds/Edgewood Arsenal	
Current Annual Payroll	$202,115,444
Payroll After Realignment	195,308,831
Decrease	6,806,613
For Frankford Arsenal	
Current Annual Payroll	$66,124,867
Payroll After Realignment	0
Decrease	66,124,867
For Picatinny Arsenal	
Current Annual Payroll	$103,526,820
Payroll After Realignment	127,116,926
Increase	23,590,106
For Rock Island Arsenal	
Current Annual Payroll	$118,891,063
Payroll After Realignment	119,479,044
Increase	587,981
For Watervliet	
Current Annual Payroll	$40,258,376
Payroll After Realignment	37,301,230
Decrease	2,957,146

* Does not include students which average 2500-3000 in population.

Mr. STEED. What effect would the influx of about 1,000 civilian and 30 military families be upon the housing situation in the Picatinny Arsenal area?

General WRAY. As recently as 1970, Picatinny had 8,200 employees and the community met their housing needs. The addition of approximately 1,100 employees to the arsenal's current strength of 5,700 would still be well within the 1970 load. While housing costs have risen dramatically during that period, for-sale units are expected to be adequate in supply but somewhat expensive. The new organization changes the nature of the work force to one that is predominantly scientific and technical and tends to reduce the number of lower salaried personnel. Leases and rentals in the immediate vicinity of Picatinny Arsenal would be relatively unavailable. Picatinny Arsenal is approximately 1 hour's drive from the outskirts of the New York City complex. However, near points of the five counties immediately surrounding the arsenal can be reached within 20 minutes driving time. There were 5,469 residential units listed for sale in these counties during the week of June 1, 1976.

FRANKFORD CLOSURE AND AMARC STUDIES

Mr. STEED. To what extent was the closure of Frankford Arsenal considered or reconsidered as a part of the AMARC and AMC Committee-Armament's studies?

Colonel DOYLE. Sir, this particular point has come up several times already because of the announcement date of the closure of Frankford, which was publicly announced on the 22d of November 1974, while the study on the ARMCOM realinement was not published until 1 month later.

Frankford was involved in the study which resulted in the announcement of the closure and in the ARMCOM realinement study.

In the study of the ARMCOM realinement, the rules of the game were that we could consider Frankford as available for retention, or if we felt it appropriate to modify it in some way and that is why two of the alternatives considered in our study did consider the possibility of using Frankford as a site for a small-caliber weapons systems laboratory.

When the Army reached the point of decision in November prior to announcing the closure of Frankford, the decisionmakers checked with our study group, which by then had practically completed the study—we still had some writing and publishing to do—but the conclusions of our study were quite firm; the question was, is there anything in your study which would cause us to keep Frankford open? We told them quite candidly as we have said in the study, which is in the public domain, that we concluded that the alternatives which include Frankford were low on the list of possible courses of action to achieve our objectives. At the time the announcement was made, the Army said that Frankford would be closed, they announced where the materiel readiness elements were going and said the final destination of the R. & D. elements would come with the final decision on the ARMCOM realinement.

Mr. STEED. What were the alternatives considered relative to Frankford under the AMC Committee-Armament's study, and how do they

compare to the proposal recently submitted by the congressional delegation for Philadelphia?

Mr. GALE. Conceptually there was little difference between Frankford alternatives in the final report of the AMC Committee-Armament and the congressional delegation's proposal. The Army's report included one alternative for forming the small caliber systems laboratory at the existing Frankford Arsenal and another for locating the small caliber systems laboratory at the new Frankford Arsenal site as proposed by the city of Philadelphia. The congressional proposal in addition to locating the small caliber laboratory at Frankford Arsenal also included retaining all of the fire control activities as part of this laboratory. However, the proposals by the congressional delegation differed substantially from the Army proposal in the allocation of required facilities, support and mission personnel, operating cost, and one-time costs.

EVALUATION OF PHILADELPHIA DELEGATION PROPOSAL

Mr. STEED. What are the merits and disadvantages of the recent proposal by the Philadelphia delegation in the Army's opinion?

Mr. GALE. The merits of the proposal are that it has the distinct advantage of maintaining the skills intact at Frankford Arsenal and, of course, it does not cause any turbulence or adverse economic impact on the Philadelphia area.

The demerits or disadvantages are associated with the operational inefficiencies which will again be brought about by the separation of that particular laboratory—that is, the small-caliber lab—from the large-caliber lab we talked about earlier.

Additionally, in our estimate an operational cost difference of approximately $10 million would result. Specifically, we costed the Frankford Arsenal proposal at $40.7 million per year operating cost and we costed the applicable portions of the Armaments Research and Development Command realinement action associated with that function at $30.6 million per year, resulting in a difference of approximately $10 million per year.

It is likely that the Frankford proposal might have the edge on the one-time cost. We estimated that the Army's one-time cost for its portion in the realinement is approximately $22 million and we estimated that the Frankford Arsenal proposal would cost from $4.8 million to $22 million, depending on the amount of construction that would be required.

As I said earlier, even if we were to asume that the arsenal proposal would incur no construction cost, the lower operating cost of the Army's proposals would pay back the difference in one-time cost in at least 2 years.

Mr. ALLEN. Could you give the committee documentation on how you figured the cost?

Mr. GALE. I will be glad to.

Mr. ALLEN. They feel these operating costs are very close or perhaps even favor the Philadelphia proposal.

Mr. GALE. I would be very happy to supply that.

[The information follows:]

The economic analysis compared applicable portions of the announced Armament Research and Development Command (ARRADCOM) realignment with the March 1976 Frankford Arsenal Proposal. It was based on the best available estimates of the costs associated with the Small Caliber Weapons Systems Laboratory (SCWSL) portion of the announced realignment, with the March 1976 Frankford Arsenal Proposal. The specifics are as follows:

Manpower estimates for applicable portions of the announced ARRADCOM realignment as well as for the March 1976 Frankford Arsenal Proposal are in Figure A. The base operations support personnel required to support the SCWSL at Picatinny Arsenal as currently planned was compute by applying a proportionate percentage of the base operations support personnel at Picatinny Arsenal against the SCWSL...a procedure which provides a reasonable estimate. The base operations support personnel required to support the SCWSL at Frankford Arsenal under the proposal is estimated to be 343, with an additional 97 base operations support personnel at Picatinny Arsenal in support of the SCWSL. Base operations support necessary for the Frankford Arsenal Proposal has been minimized by providing for maximum support from Picatinny Arsenal. Support in areas such as Special Assistance Staffs (EEO, Small Business, etc.), Personnel, Force Development, Comptroller, and Procurement would be provided from Picatinny Arsenal.

The cost analyses for applicable portions of the announced ARRADCOM realignment as compared to the March 1976 Frankford Arsenal Proposal are in Figures B and C. As in the case of manpower estimates discussed above, these data are based on the most accurate information currently available and are considered reasonable for comparative purposes. Non-recurring costs for applicable portions of the announced realignment are approximately $22.7 million as compared to $4.9-22.6 million for the March 1976 Frankford Arsenal Proposal. A $4.9-22.6 million range for non-recurring costs associated with the proposal is required due to the uncertain nature of construction required at Frankford Arsenal to support the Delegation's Proposal (See Figure B). The non-recurring costs are, therefore, estimated to be between $.1 and $17.8 million less to implement the proposal than for applicable portions of the announced ARRADCOM realignment. Annual recurring costs for applicable portions of the announced realignment are approximately $30.6 million as compared to $40.7 million for the March 1976 Frankford Arsenal Proposal. The annual recurring costs are, therefore, estimated to be $10.1 million less for the applicable portions of the announced ARRADCOM realignment than for the March 1976 Frankford Arsenal Proposal.

Based on the above, the $10.1 million annual recurring cost advantage that the ARRADCOM realignment has over the Frankford Arsenal Proposal permits off-setting the $.1 to $17.8 million non-recurring cost advantage of the proposal in less than two years after completion of the realignment, even accepting the Delegation thesis that no construction would be required at Frankford Arsenal under the proposal. Rather significant construction/modification might be required if a SCWSL were to be consolidated in a relatively small number of contiguous buildings now existing at Frankford Arsenal, which could reduce the offset period to less than one year.

ESTIMATED MANPOWER REQUIREMENTS

CATEGORY/LOCATION OF MANPOWER REQUIREMENTS	APPLICABLE PORTIONS OF ANNOUNCED ARRADCOM REALIGNMENT				MARCH 1976 FRANKFORD ARSENAL PROPOSAL			
	SOURCE				SOURCE			
	TRANSFERS IN	RECRUIT-MENT	AVAILABLE ON SITE	TOTAL	TRANSFERS IN	RECRUIT-MENT	AVAILABLE ON SITE	TOTAL
• Mission Requirements.	203	607	0	810	68	202	620	890
•• At Frankford Arsenal.	0	0	0	0	(60)	(180)	(620)	(860)
•• At Picatinny Arsenal.	(203)	(607)	0	(810)	(8)	(22)	0	(30)
• Mission Support Requirements.	101	304	0	405	5	15	500	520
•• At Frankford Arsenal.	0	0	0	0	0	0	(500)	(500)
•• At Picatinny Arsenal.	(101)	(304)	0	(405)	(5)	(15)	0	(20)
• Base Operations Support Requirements.	0	0	175	175	24	73	343	440
•• At Frankford Arsenal.	0	0	0	0	0	0	(343)	(343)
•• At Picatinny Arsenal.	0	0	(175)	(175)	(24)	(73)	0	(97)
• Total Manpower Requirements.	304	911	175	1390	97	290	1463	1850
•• At Frankford Arsenal.	0	0	0	0	(60)	(180)	(1463)	(1703)
•• At Picatinny Arsenal.	(304)	(911)	(175)	(1390)	(37)	(110)	0	(147)

NOTES: (1) The above structure for the Frankford Arsenal Proposal is based on minimum duplication of mission and mission support personnel. Limited duplication at Frankford Arsenal would be essential, however, in areas such as product assurance, materiel fabrication, fire control, instrumentation, etc.

(2) Base operations support necessary for the Frankford Arsenal Proposal has been minimized by providing for maximum support from Picatinny Arsenal. Support in areas such as Special Assistance Staffs (EEO, Small Business, etc), Personnel, Force Development, Comptroller, and Procurement would be provided from Picatinny Arsenal.

FIGURE A

COMPARATIVE COST ANALYSES

NON-RECURRING COSTS

APPLICABLE PORTIONS OF ANNOUNCED ARRADCOM REALIGNMENT		MARCH 1976 FRANKFORD ARSENAL PROPOSAL	
ITEM	COST ($M)	ITEM	COST ($M)
• Construction and Renovation, Movement, OSHA, Office Equipment, and Picatinny Internal Moves Which Could be Avoided (Includes $7.7M MCA).	$12.12	• Construction and Renovation at Frankford.	$0-17.7 2/
		• Relocation Costs - Frankford to Dover (37 @ $6,600).	$.24
• Relocation Costs - Frankford to Dover (244 @ $6,600).	$1.61	• Relocation Costs - Rodman to Frankford (60 @ $6,600).	$.40
• Relocation Costs - Rodman to Dover (60 @ $6,600).	$.40	• Severance Pay (290 @ $6,400).	$1.86
• Severance Pay (911 @ $6,400).	$5.83	• Recruitment Costs (290 Total) 1/.	$.88
• Recruitment Costs (911 Total) 1/.	$2.72	•• 40% @ $6,900 + 150 - $.82 •• 5% @ 150 - 0 •• 20% @ $500 + 150 - $.04 •• 35% @ $150 - $.02	
•• 40% @ $6,900 + 150 - $2.56 •• 5% @ $150 - $.01 •• 20% @ $500 + 150 - $.10 •• 35% @ $150 - $.05		• Internal Moves of Equipment, Equipment Procurement for Picatinny Needed Due to Non-Availability of Frankford Equipment.	$1.50
TOTAL	$22.68	TOTAL	$4.88-22.58

1/ Recruitment costs are computed by assuming that 40% of the total recruited are required moves over 200 miles at a cost of $6,900 each plus $150 basic recruitment charge. Five percent will be clerical, recruited locally at a $150 charge, 20% will be first duty station at a $500 cost plus the $150 basic cost and 35% other personnel at the basic cost.

2/ An Army study conducted in 1974 determined that for a similar concept, construction and renovation and refurbishing of existing buildings, including substantial modification of utilities, would be needed at a total cost of $14.866M, which equates to $17.7M when converted to 1976 dollars. These construction requirements have not been validated and have, therefore, been shown as a $0-17.7M range in the above cost analysis. Rather significant construction/modification might be required if a Small Caliber Weapons Systems Laboratory were to be located in a relatively small number of contiguous buildings now existing at Frankford Arsenal.

FIGURE B

COMPARATIVE COST ANALYSIS

ANNUAL RECURRING COSTS			
APPLICABLE PORTIONS OF ANNOUNCED ARRADCOM REALIGNMENT		MARCH 1976 FRANKFORD ARSENAL PROPOSAL	
ITEM	COST ($M)	ITEM	COST ($M)
• 1215 SCWSL Mission and Mission Support Personnel at Picatinny.	-	• 1360 SCWSL Mission and Mission Support Personnel at Frankford 1/.	-
• 175 Base Operations and General Support Personnel at Picatinny.	-	• 50 SCWSL Mission and Mission Support Personnel at Picatinny 1/.	-
1390 Personnel @ $22,000 Per Manyear 3/.	$30.6	• 343 Base Operations and General Support Personnel at Frankford 2/.	-
		• 97 Base Operations and General Support Personnel at Picatinny 2/.	-
		1850 Personnel @ $22,000 Per Manyear 3/.	$40.7

1/ These requirements are based on minimum duplication of mission and mission support personnel. Limited duplication at Frankford Arsenal would be essential, however, in areas such as product assurance, materiel fabrication, fire control, instrumentation, etc.

2/ Base operations support necessary for the Frankford Arsenal Proposal has been minimized by providing for maximum support from Picatinny Arsenal. Support in areas such as Special Assistance Staffs (EEO, Small Business, etc.), Personnel, Force Development, Comptroller, and Procurement would be provided from Picatinny Arsenal.

3/ Twenty-two thousand ($22,000) per year per person is the best current estimate of the direct personnel costs plus overhead. Included are: Costs of operating the installation but not directly relatable to a direct mission program.

FIGURE C

Mr. STEED. What are the Army's best estimates of the costs and savings under this proposal?

Mr. GALE. Even though the Philadelphia proposal, in its most optimistic light, may have a $17 million nonrecurring cost advantage, assuming no construction would be required, this cost advantage would be offset by the recurring savings—$10.1 million—of the Army course of action in less than 2 years. I'll provide the details in my response to Mr. Allen's question.

RETENTION OF SKILLED PERSONNEL

Mr. STEED. What are the Army's estimates with regard to its need to retain and ability to retain skilled personnel under the Army's plan?

Colonel DOYLE. It is anticipated that approximately 25 percent of the Frankford Arsenal personnel will relocate with their jobs. This figure is based on data from similar moves that have been accomplished. For example, the merger of U.S. Army Weapons Command and U.S. Army Munitions Command into U.S. Army Armament Command in 1974 brought about the offer to transfer 550 headquarters personnel located at Picatinny Arsenal and Aberdeen Proving Ground to Rock Island Arsenal, Ill. In this action 125 personnel or 25 percent of those eligible to transfer actually moved. The realism of projecting a 25-percent transfer of the total Frankford Arsenal personnel eligible to move is further substantiated by the closure and movement of the U.S. Army Electronics Command Philadelphia elements to Fort Monmouth, N.J. Out of a total of 2,362 eligible to transfer, 611 or approximately 26 percent made the move, although some of these still commute from Philadelphia. Based on these actions, the projected Army figure of 25 percent as the norm for calculating the estimated transfers is considered realistic and valid. This cadre, supplemented with new hires, and other employees of the Armament Research and Development Command, will be competent to provide necessary technical guidance to research, development, and production construction.

RANGE FACILITIES

Mr. STEED. To what extent will new ranges be required as a result of the closure of Frankford Arsenal, and how much will it cost to provide the needed capability?

Colonel DOYLE. Currently we plan to do the testing required at other ranges. If it is determined at a later date that a small range is required at Picatinny Arsenal, it would be constructed only to support research and development activities at that location consistent with the program requirements for small-caliber weapons and ammunition. It is estimated that the cost would not exceed $2.2 million in fiscal year 1976 dollars.

RESPONSE

Mr. STEED. Will the Army lose its ability to respond rapidly in mobilization or to respond to the need for quick fixes as the result of moving out of Philadelphia?

Mr. GALE. The mobilization planning of the Armament Materiel

Readiness Command and the R. & D. Command is being structured to maintain the ability to respond to these mobilization requirements.

The analysis indicates that the capability to provide support to industry in the event of mobilization will be provided for during the closure transition period as well as in the long run and this was analyzed in quite a bit of detail in the report that went to President Ford for transmission to Mr. Rizzo who raised this question quite some months ago.

SOURCE OF FUNDING

Mr. STEED. What savings are you proposing to utilize to obtain the necessary funding?

General WRAY. We are proposing to use funds left over from the Safeguard construction program; fiscal year 1971 funds, to reprogram for the construction we requested.

Mr. STEED. Are you far enough along to believe there are sufficient funds there to cover your needs here for this request?

General WRAY. Yes, sir. The Safeguard program, of course, is essentially completed now.

Mr. STEED. That concludes the questions on this subject. I now recognize our colleague from Pennsylvania who has an additional statement he would like to present.

VISITS TO INSTALLATIONS

Mr. EILBERG. Since the closure announcement by the Army was received in November 1974, through my staff and through the labor union representation at the Frankford Arsenal, I have been in nearly daily touch with this situation.

I tell you, Mr. Chairman, that the Secretary of the Army, whether it be Mr. Hoffman or Mr. Calloway, personally has not been there, as has been represented today at least by one of the Army witnesses. That is a pretty callous statement as far as I am concerned to say there has been an inspection by a high official of the Army, when in fact, sir, there has not been. To reiterate what I said earlier, I would hope, since we have been unsuccessful with Mr. Hoffman, perhaps members of the committee could compare for themselves the facilities presently at Frankford Arsenal with facilities presently at Picatinny, by a personal onsite view in order to determine for yourselves whether expenditure of some $50-odd million is in the national interest.

PHILADELPHIA DELEGATION PLAN

As to the Philadelphia plan, there have been several Philadelphia plans. The most recent one is the one we are advocating involving reduction to 1,500 personnel, involving the small arms mission proposal being retained, plus the fire control, in the limited number of buildings, with a limited acreage. This has been just categorically turned down by the Secretary of the Army.

There has been no communication, Mr. Chairman, with the delegation, nor with people at the arsenal who are vitally concerned. The chairman of the local labor union is in this hearing room now and he

is certainly in a position to know what has taken place and not taken place. We have been in almost daily contact with him. Now right down here in the Army brain trust they decide this is out of hand, which sustains the idea they made up their minds a long time ago that the Frankford Arsenal close. And I continue to ask why?

There have been references both to the Philadelphia plan and to a number of other plans, and I think the subcommittee is, to a certain extent, having sand thrown in its eyes since confusing plans have been offered.

One criticism has been offered here today which refers to one of the earlier plans at another site for relocation of the arsenal within the city of Philadelphia. This kind of testimony should not be offered here. You would have no way of knowing this without knowing the site, without knowing the history of the development.

The Army witnesses come in today at all costs to try to get what they want without being at all concerned about the veracity, as far as I am concerned, of what is actually involved here.

I suggest that Mr. Gale, who purports to be the expert here, who was asked questions specifically about the Frankford Arsenal, Mr. Gale has not visited the Frankford Arsenal and I suggest, Mr. Chairman, it would be very useful to have him there. Although I do not expect for one moment that his opinions will be changed because he is clearly operating under a directive of his own.

Mr. Chairman, there has clearly been a lack of candor between the Army and the Pennsylvania delegation and I deplore what has happened here. I hope that the subcommittee will try to bear heavily in mind that the existing facilities should be used wherever possible in the interests of saving funds that are not necessary for reconstruction and rehabilitation. I suggest the Army has not made a case and I hope you will not approve this reprograming request.

Mr. GALE. Mr. Chairman, may I just say I am sorry, Mr. Eilberg, that you feel that way, but I must correct you because I am not going to sit here and take these kind of accusations when I am trying to be a dedicated employee of the Army and working for what I believe is right.

I invited myself to go to Frankford Arsenal and I did go last year for the purpose of holding a mass meeting with the employees, which I held. I went to Frankford Arsenal. I explained to them our unique interest in trying to maintain their skills, in trying to keep them together as a team and I spent all day there on this mission and it wasn't the first time or the last time I had been there.

Mr. EILBERG. May I suggest unequivocally that Mr. Gale did not view the present Philadelphia proposal. He may have spent time there. He has certainly not reviewed the plan involving 1,500 people and the plan we have advocated——

Mr. STEED. We will permit all the witnesses to expand their statements in the record as they desire.

This concludes this phase of the hearings.

On behalf of the subcommittee, I would like to thank all of you for your appearance here today and the information you have given us, and for the cooperation we have had from you. This is not an easy or noncontroversial subject. I know I speak for the whole subcom-

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mittee when I say we do appreciate the help all of you have made available to us.

We will adjourn now subject to the call of the chairman.

[Additional information follows:]

ARMY RESPONSE

With reference to the opening statement by the chairman, the Army offers the following justification for requesting construction through reprograming rather than via the annual military construction authorization and appropriation process.

The Secretary of the Army announced the armament development center decision on December 2, 1975, 2 months after the Army had submitted its fiscal year 1977 MCA program to the Office of the Secretary of Defense and little more than 1 month before the President's budget was presented to the Congress. While preliminary cost estimates had been developed as part of the study prior to the Secretary's decision the cost estimates and detailed scopes of work for alterations to the 12 existing buildings were not available until well after the President's budget had been presented. The cost of this work had been included in the studies and the briefings given interested parties.

Due to the urgent need to improve the armament development process and meet budgetary and manpower ceilings imposed the September 30, 1977, date for closure of Frankford Arsenal is considered essential. Delay beyond that point would create additional turmoil and require service cuts in other areas to provide the additional funds and personnel spaces to operate the Frankford Arsenal or supplemental appropriations. For these reasons the work required could not be delayed for the fiscal year 1978 MCA program which will not provide construction funds until October of 1977.

The Army therefore submitted its initial construction requirements to the Office of Secretary of Defense and the Office of Management and Budget in March 1976. After approval of these agencies the construction request was formally submitted to the four congressional committees which normally review military construction programs. Thus the reprograming request has been reviewed by the House Armed Services Committee, the Senate Armed Services Committee, the House Appropriations Committee and the Senate Appropriations Committee. In summary the submission of this project outside of the normal budget cycle was due to time constraints and was necessary to prevent degradation of the armament development process and additional costs. There has been no attempt to conceal this request from the Congress.

With reference to the questions asked by Congressman Eilberg in his opening statement concerning where the Army reprograming authority for the architect-engineer—A–E—contracts and whether this is a violation of the antideficiency act and with reference to Mr. Eilberg's statement that the architect-engineer contract was done without congressional approval, the following information to correct the record is provided:

The Armed Services Committees of the House and Senate were notified on March 2, 1976 under provisions of section 612 of Public Law 89–568 as amended by Public Law 93–552 of the Army's intention to award architect-engineer contract estimated to cost approximately $390,000 for advance planning and design of armament development center facilities at Picatinny Arsenal, N.J.

After the required 30-day waiting period, negotiations with A–E firms for design of a portion of the total development center facilities were begun and contracts to two firms in the amounts of $25,000 and $80,000 were awarded on May 12 and 19, 1976, respectively, for preliminary design, with options for final design.

This A–E design is being funded with funds annually appropriated by the Congress for advance planning and design of projects proposed for construction according to title 31 United States Code—section 723 (Public Law 155–82, September 28, 1951 section 504 as amended by Public Law 161–84, section 512) which authorizes funds to be appropriated without fiscal year limitations for advance planning, construction design, and architectural services in connection with public works projects which are not otherwise authorized by law.

The Armed Services Committees were also notified on May 25, 1976 of the Army's intention to award architect-engineer contracts estimated at $280,000

and $680,000 for advance planning and design of proposed fiscal year 1978 MCA projects for an energetics laboratory and an engineering administration building at Picatinny Arsenal. Selection of architect-engineers is underway for design of these facilities.

The above actions are consistent with normal procedures associated with execution of the military construction, Army program.

The contacts which the Army maintained with the congressional delegation from Philadelphia throughout the total decision period are as follows:

May 29, 1974—Mayor Rizzo, Senator Scott, and Senator Schweiker met with the President and Secretary of the Army Callaway to present a proposal for new facilities to house missions being performed at Frankford Arsenal.

November 19, 1974—Secretary of the Army Mr. H. Callaway, met with Philadelphia congressional delegates to advise them of Army decision to close Frankford Arsenal.

November 21, 1974—Realinement fact sheet concerning Frankford Arsenal closure delivered to Mr. Nix.

November 21, 1974—Army provided chairman, Senate Committee on Appropriations; chairman, House of Representatives Committee on Appropriations; chairman, Senate Committee on Armed Services; chairman, House of Representatives Committee on Armed Services; Speaker of the House of Representatives; and President pro tempore of the Senate, a report pursuant to section 613 of Public Law 89-568.

December 17, 1974—Letter jointly signed by Congressmen Barrett, Eilbert, Nix, and Green sent to Secretary of the Army Callaway regarding closure of Frankford Arsenal and Philadelphia proposal.

December 30, 1974—Army presented its evaluation of the November 29, 1974 Philadelphia proposal to the Pennsylvania congressional delegation and to Philadelphia city officials in Philadelphia.

January 2, 1975—At request of Pennsylvania congressional delegation and Philadelphia city officials, Army and officials of the city met at the Pentagon to discuss, in detail, the Army evaluation of November 29, 1974 Philadelphia proposal. The Army study documentation, including the case study and justification folder, was provided city officials at this time.

January 13, 1975—Secretary of the Army Callaway responded to December 17, 1974, letter from Congressmen Barrett, Eilberg, Nix, and Green.

January 24, 1975—Letter jointly signed by Congressmen Barrett, Eilberg, Nix, and Green to Secretary of Defense Schlesinger providing comments on Frankford Arsenal closure.

January 30, 1975—Interim response from Army to Congressmen Barrett, Eilberg, Nix, and Green on letter of January 24, 1975, stating that thorough review of the comments was underway. Separate response from Secretary of the Army Callaway to Congressman Barrett also acknowledging Congressmen's comments and the Army review.

January 31, 1975—Meeting between Army and Philadelphia officials to discuss city comments on Army evaluation of Philadelphia proposal.

February 25, 1975—Members of Congress from Philadelphia and representatives of the city of Philadelphia briefed by the Army study of the armament development center.

March 13, 1975—Letters from Secretary of the Army Callaway to Congressmen Barrett, Eilberg, Nix, and Green providing Army comments on Congressmen's letter of January 24, 1975.

April 7, 1975—Letter to Mayor Rizzo from Secretary of the Army Callaway providing Army reply to city comments on Philadelphia proposal. Also by letter from Secretary Callaway, copies of letter to Mayor Rizzo sent to Congressmen Nix, Green, Eilberg, and Barrett.

May 2, 1975—Philadelphia congressional delegation submitted comments on Army study of armament development center.

July 7, 1975—Letter from Congressmen from Pennsylvania and other officials from Acting Secretary of the Army Augustine stating impact on Army plans to close Frankford Arsenal of May 29, 1975, court decision on suit filed in Philadelphia April 23, 1975, and announcing a schedule of Army preliminary actions in following its plan.

August 28, 1975—The Under Secretary of the Army visited and toured Frankford Arsenal accompanied by and at the request of Senator Hugh Scott.

December 2, 1975—Army met with Congressmen Nix, Barrett, Green, and Eilberg for the purpose of presenting a concept for the establishment of an armaments development center.

February 9, 1976—Letter to Secretary of the Army Hoffmann from Congressman Price, HASC chairman, transmitting outline of proposal from Congressmen Nix, Barrett, Green, and Eilberg for partial retention of Frankford Arsenal facilities and personnel as fire control center.

March 1, 1976—Letters to Congressmen Nix, Green, Barrett, and Eilberg from Secretary of the Army Hoffmann requesting details of proposal submitted on February 9, 1976. Also letter from Secretary to Chairman Price informing him of letter to Congressman Nix and stating Army's intention to review detailed proposal.

March 31, 1976—Letter from Chairman Price to Secretary Hoffmann, with enclosure, introducing new proposal for Frankford Arsenal from Congressmen Nix, Barrett, Green, and Eilberg.

June 4, 1976—The Army provided Chairman Price and the Philadelphia congressional delegation with an analysis of the March 31, 1976, proposal. In the analysis the Army addressed in detail the operational and economic aspects of the proposal and the specific congressional comments. The Army analysis resulted in the conclusion that the closure of Frankford Arsenal continue as announced with the arsenal's research and development functions relocated in accord with the announced armament community realinement.

With reference to the statement made by Mr. Comer that the Army has not responded to a suggested alternative the following information is provided to complete the record:

Quad City comments, submitted as part of the Iowa-Illinois delegation input, were addressed in the 2 December 1975 response back to the Iowa-Illinois delegations.

THURSDAY, SEPTEMBER 9, 1976.

REPROGRAMING FOR CONSTRUCTION AND REHABILITATION OF FACILITIES AT PICATINNY ARSENAL

WITNESSES

HON. NORMAN R. AUGUSTINE, UNDER SECRETARY OF THE ARMY
MAJ. GEN. WILLIAM R. WRAY, ASSISTANT CHIEF OF ENGINEERS, U.S. ARMY
MAJ. GEN. BENNET L. LEWIS, COMMANDING GENERAL, U.S. ARMY ARMAMENT COMMAND, ROCK ISLAND, ILL.

Mr. SIKES. The committee will come to order.

Mr. Secretary, we are happy to have you again meet with the Military Construction Subcommittee of the Committee on Appropriations. This time you are here to discuss facilities for the Armament Development Center.

We have gone into this situation rather extensively. However, there are many elements in the proposal which are controversial. The committee is in need of additional information. I believe the Army has wanted to provide additional information. This will give us an opportunity for further discussion and to receive information that you may want to give us.

Members of this committee have looked at the facilities under discussion. We have a little better feel for the subject than we had at the time of our previous meeting. The committee has enjoyed the privilege of working with you and we have a lot of confidence in the things that you tell us. We know that you are a very able and dedicated public servant.

You may proceed.

STATEMENT OF UNDER SECRETARY OF THE ARMY

Mr. AUGUSTINE. Thank you, Mr. Chairman and members of the committee. We appreciate the chance to appear before you today to talk about our efforts to improve the management and efficiency of our armaments endeavors in the Army.

I believe the plan we are pursuing is one that can stand on its own merits. We welcome the opportunity to discuss it.

I have with me today both Maj. Gen. Bill Wray and Maj. Gen. Ben Lewis, both of whom I believe the committee knows very well.

With your permission, I will make a brief opening statement and we will then welcome your questions.

AMARC REPORT

As you are aware, the realinement decision had its roots in the report of the Army Materiel Acquisition Review Committee, released to Con-

gress in August 1974. This report, which we commonly call the AMARC report, was a concerted effort by a distinguished group of individuals from government, industry and academia to "tell it like it is" in the Army's hardware business. In the Army's extensive follow-on studies of the AMARC report, the Armament R. & D. Command and associated Readiness Command evolved as the appropriate organizations in the armaments area to achieve the basic objectives that the AMARC envisioned. A number of R. & D. commands and readiness commands paralleling this action in other technological areas, was also recommended by AMARC, and most of these have now been established or are in the final phases of being organized.

I must say at this point, that the Army does not enjoy the relocating of its activities because of the obvious hardships created. Announced relocations generally produce strong criticism of the Army. But, we have an obligation to see that we do the best possible job, and as a manager, I can assure you that the Army can do a better job in managing its weapon systems and munitions because of the decision to recast our way of doing business along the lines of the chosen course of action.

EXTENT OF CONSOLIDATION

As you know from previous discussion, our first choice for reorganizing would have been to consolidate all activities at a single site. This would, perhaps, have provided the least controversial and most obvious organizational arrangement from a purely long-term operational point of view. However, all suitable single-site locations would have incurred very heavy personnel turbulence with attendant high risk of serious mission and program disruptions for the short term and midterm. In addition, the high one-time costs were inconsistent with the prevailing economic environment. I feel that by choosing the particular alternative which we are now implementing, the Army has the potential for obtaining all the essential goals visualized by AMARC at a relatively lower cost, lower program risk, and less personnel turbulence, while providing the best all-around opportunity for improving the armament materiel acquisition process. Additionally, substantial annual operating savings will be realized by this management action.

In the selected organizational configuration, the critical consideration, which in our management judgment makes this an appropriate action, is the fact that almost all of the large caliber weapon systems lab, all of the small caliber weapon systems lab, the bulk of the supporting elements, and the command headquarters, will be at one location. This consolidation provides the essential management efficiencies and opportunities for mission effectiveness by joining weapon, fire control, ammunition and fuze components in systems-oriented laboratories, capable of quickly reacting to mission needs and mission workload fluctuations.

REALINEMENT TO GO FORWARD

We hope, Mr. Chairman, that you and the committee will support the Army's improvement objectives and that we can move as smoothly as possible to the full implementation of the new armament commands. However, in case we could not proceed with our construction projects as planned, the implementation of realinement actions would continue, albeit less efficiently, including the planned closure of Frankford Ar-

senal. If a delay in construction funds were incurred, the program interruptions and additional turbulence would be a serious blow to the armament R. & D. community. It would result in added hardships to personnel involved in transfers; it would cost an additional $0.5 to $1 million per month, which could not be realized in savings; and it would contribute adversely to the Army's ability to meet its weapon and ammunition readiness responsibilities. Nevertheless, we would have no choice but to continue to proceed on the course on which we are embarked, and which we have described to the Congress on various occasions this past year, coping as best we can with the difficulties which would confront us.

FRANKFORD CLOSURE

Now let me be quite frank with regards to Frankford Arensal. The closing of a relatively large installation is at best very painful. Nonetheless, the greatest kindness, I believe, we can show to our many loyal employees under such circumstances is, as always, to be totally and fully candid. We have been very thorough and, I believe, objective in studying alternative Army uses of Frankford Arsenal, its facilities and its people. Also, we have carefully evaluated a number of utilization proposals for the arsenal which were proposed by the Philadelphia congressional delegation and by the city of Philadelphia. The result of all these efforts consistently reconfirm * * * that the decision to close Frankford, which was first announced in November 1974, was and remains a prudent management action. It is not an action against the arsenal, but a move dictated by the needs to improve productivity.

GAO REVIEW

The armament realinement action was recently reviewed by the GAO in a report published in early August. There is nothing in this report which refutes the appropriateness of the Army's decision, or challenges the objectives to be achieved by the selected course of action. The GAO judges as reasonable the Army's current estimate to accomplish the realinement for $11 million less than the one-time costs estimated at decision time. On the other hand, the GAO credits the Army with approximately $37.6 million in annual savings as realized from realinement and workload reductions, compared to the Army's estimate of $42 million.

The Army agrees to approximately $1.1 million of the GAO's $4.4 million downward adjustment to the total annual savings. The GAO acknowledged that in computing the community impact of the realinement on the Rock Island area, the Army used the "actual strength," as of June 30, 1976, as a base for the computation rather than the "authorized strength." Use of the actual strength is required by NEPA and results in a slight increase in the Rock Island area payroll, while use of the authorized strength would show a $19 million loss to the community. The GAO explained both methods of computation and agreed that using "actual" levels best indicates the probable impact on the community. In summary, the GAO report does not alter the validity of the announced realinement action.

In addition, the various Federal district courts and appellate courts have ruled upon the propriety of the Army's notification of the Con-

gress of the planned closedown, of the legality of actions with respect to the Arsenel Act, minority discrimination, and the National Environmental Policy Act. In each case, the Army's position has been upheld. It, therefore, now appears to be time to move ahead with the implementation of the planned realinement and to begin to accrue the approximately $40 million annual savings which are available to us and the taxpayer, and to enhance the Army's materiel acquisition process at the same time.

Again, I would like to thank you for the opportunity to be with you this morning and to discuss the implementation of the Army's realinement of its armament community. This concludes my prepared remarks. We welcome your questions.

REPROGRAMING NOT ESSENTIAL TO CONSOLIDATION

Mr. SIKES. Is the reprograming which you have requested essential to carry on the consolidation of functions?

Mr. AUGUSTINE. Mr. Chairman, the reprograming is essential to carry it on efficiently. Even without the reprograming, we would plan to go ahead and conduct this consolidation of our management in the armament community and we would do it in facilities that were much less than desirable to do the job.

NEW RESEARCH AND DEVELOPMENT COMMAND

Mr. MCKAY. You indicated consolidation. I think there is the prospect of creating a new command out of this shift. That is not consolidation. Is that right?

Mr. AUGUSTINE. There is a process of creating a new command but we will consolidate work that now goes on at five different locations under five local managements, principally into one place so it will be a consolidation into one location of the large caliber systems lab, the small caliber systems lab, fire control work, some of the work at Watervliet and, of course, the headquarters at Picatinny.

Mr. MCKAY. Then, while consolidating facilities, you are expanding commands?

Mr. AUGUSTINE. I would not describe it that way necessarily. Right now we have individual commands at each of these locations under one main command in both the R. & D. and logistics areas. The new organization will have one overall management in the R. & D. area, one overall management in the logistics area and principally at the location of Picatinny, insofar as R. & D. is concerned.

Mr. MCKAY. If you are consolidating locations, why do you need an extra command?

Mr. AUGUSTINE. The work in the logistics area will remain at Rock Island principally under the Readiness Command management.

I think what I should do here is distinguish between two objectives. One was that our R. & D. activities tend to be quite scattered at present so when we have a problem it is hard to find anyone who is responsible for fixing it. We are trying to combine those scattered R. & D. efforts into one location because they have a close relationship to each other.

Let me now turn to the logistics area which is in many respects quite dissimilar from the R. & D. effort and doesn't have that commonality. We plan to keep the logistics effort at Rock Island under the command

there so we will have separate R. & D. and logistics headquarters but each with total responsibility for its own area of activity and in case of the R. & D. Command we will now have almost all of the responsible elements of that command at one location; namely, Picatinny.

Mr. McKay. At how many places have you the R. & D. scattered now?

Mr. Augustine. Quite a number. There is some of the activity at Rock Island, some at Watervliet, some at Picatinny, some at Frankford, some at Aberdeen, some at Edgewood.

General Lewis. There are five general locations.

Mr. McKay. How do we get them so scattered when they should have been together?

Mr. Augustine. I think the best answer to that is that they historically grew up in those locations. Frankford has been there well over a century. They sort of sprang up out of local arsenals and I am sure when Frankford was set up they had no idea they would be doing fire control work on attack helicopters, but as the missions changed, that happened.

Mr. McKay. Why do you see it so vital to separate the R. & D. from logistics? They have to have a coordinated effort somewhere. Otherwise you may be going in two different directions.

Mr. Augustine. You are absolutely right. They do have to be coordinated and that is the job of the command at DARCOM, and the reason we decided to leave those two commanders under a single commander, the commander of DARCOM. The reason we felt they should be separated——

Mr. McKay. Is that where you create the new command?

Mr. Augustine. No, that is an existing command. We used to have an Army Materiel Command and under it there were commodity commands that did both R. & D. and logistics. We now have a Materiel Development and Readiness Command, DARCOM, and under that we will have two sub-elements, one doing logistics and readiness, the other doing R. & D.

Mr. McKay. It sounds like you are changing titles but not attacking the problem.

PRESENT ARMAMENT COMMAND

General Lewis. I would like to describe Armament Command at the present time. Armament Command is now responsible for activities involved from research through development to mass production of ammunition and support of weapons and ammunition in the field.

For example, yesterday we were involved in an incident at Fort Knox where they are having trouble on a range with targets and we are responsible for the target mechanism.

The span of management runs from research to support of the soldier in the field. In theory that sounds great, to have one man in charge of it.

I want to tell you the command has approximately 25,000 people in it. Roughly divided between the readiness activities, production, procurement, and support of the soldier in the field, and research, development and engineering.

When AMARC came to visit the command—I was not there at the time—they watched the commander operate for a while and they

came to a conclusion we should have reached some time ago: We can predict where he will be spending his time and where top management will be spending their time and that is on readiness, because readiness has top priority. If the troops in Europe have a problem with ammunition or weapons that is where top management attention goes.

As a result the R.D. & E. activities, really buried in the organization and geographically dispersed, were not getting the attention they deserved. So, while we were fighting today's fires, and were clever with tomorrow's solutions, we weren't looking ahead 5 or 10 years. We knew the phone would ring most of the time on readiness problems on that commander's desk.

They said that such an organization is very large. There will be disadvantages when they separate, but we believe the problems they have today require the separation of research and development from readiness.

REDUCTION IN MANAGEMENT PERSONNEL

Mr. McKay. The history of reorganizations and building commands doesn't necessarily indicate that such steps simplify things. It may only build its own bureaucracy so you have more and more lines of communications to break down. I am not sure you are really getting anywhere by creating another one.

Mr. Augustine. I think the bottom line on this is that we are reducing the number of people involved in this process by over 2,600, so we clearly——

Mr. McKay. 2,000 managers or 2,000 foot soldiers?

General Lewis. We have taken a cut all the way down, but I would like to tell you how we have stripped away top management, where we have done a major job. At the present time, to reach an activity, let's say the Picatinny-Feltman Research Lab, Feltman Research Lab goes through a technical director, through a lab commander through the arsenal commander, and through the staff at the headquarters at Rock Island, to the R.D. & E. directorate and eventaully to me.

Under the new command, the Feltman Research Lab will be a part of the large caliber weapons system lab which reports directly to me. We have torn away the middle.

Mr. Sikes. The story persists that you are top heavy with high level personnel. Will the reorganization help if that is true?

Mr. Augustine. Yes. This reorganization will very definitely help in that regard.

Mr. Sikes. How will it help?

Mr. Augustine. It will help by eliminating parallel management elements, consolidating them into one headquarters within the R. & D. community and then there will just be a general belt tightening, by being more efficient and having people located closer to each other that will be accomplished. In addition, there is the overhead cost people often assign as part of a management cost. The cost of providing guards and things like that. If we can take a facility like Frankford and fold it into a larger facility like Picatinny, we can reduce and eliminate in many cases overhead costs so we gain those efficiencies.

Mr. Sikes. Let me get a little more specific. I had personal knowledge some years ago of a small base in which top level management simply

appeared to feel that they had a vested interest in their positions—they had been there a long time. The output of the facility was definitely falling behind, both in quality and quantity. It finally became evident that some of the top level people had more time to spend reading the Wall Street Journal than they had looking after the work they were assigned. It took a reorganization to straighten that out. It was reorganized and was straightened out with very good results. Did you have a situation similar to that?

Mr. AUGUSTINE. I don't want to say our managers are perhaps reading the Wall Street Journal when they should be working.

Mr. SIKES. That is better than the New York Times.

Mr. AUGUSTINE. I won't comment on that.

Mr. SIKES. Or the Washington Post.

Mr. AUGUSTINE. I am tempted to comment on that.

Nonetheless, the fact remains that for each location we now have, at each of these five locations, we have a local management and local overhead structure. At one location we can have one management and one overhead structure. It is really that simple. There is no great magic involved in it. We will reduce, as I say, 2,600 jobs, which is a considerable savings of money. I believe we will be able to do a better job in managing and give the taxpayer a good return in the process.

CIVIL SERVICE REGULATIONS

Mr. SIKES. So often, I have noted, when cutbacks are made, when personnel are eliminated through RIF, it is a case of the "last man on, first man off," and you get rid of a lot of Indians, but you keep most of the chiefs. That, in itself, contributes to a top-heavy organization and one that increases costs, and you don't have enough young talent coming up to fill the high jobs.

Will this cutback of yours follow that pattern?

Mr. AUGUSTINE. I would like to assure you that it wouldn't. We have some of that problem. We, of course, abide by the civil service rules and there is a degree of "first man in, last man out," that perhaps rightly falls in this case.

The main gain we can make in that sense is where there used to be five jobs at one level there will be one job. You have five people competing for the one job and you should be able to do better in the balance, but I can't assure you we won't have some of that problem.

Mr. SIKES. Under civil service rules you can avoid some of it?

Mr. AUGUSTINE. I think not. We really have a unique opportunity here in my judgment to collect together a very scattered organization with very split responsibilities where, when we have problems—and we have had a number of them—we can't now find anybody who caused the problem or who is in charge of fixing it.

We can do that and save $37 million a year for the taxpayers as a benefit, that number has been certified by the GAO, so it is a very unusual case we have here.

SAVINGS

Mr. SIKES. Is the saving predicated on closing Frankford, or on the consolidation?

Mr. AUGUSTINE. It includes both.

Mr. SIKES. If Frankford were not closed, what would the savings be?

Mr. AUGUSTINE. About $13 million. I will provide the exact number for the record.

[The information follows:]

According to the GAO report, approximately $17 million (including $6.3 million in workload reduction) would be saved, without the closure of Frankford. The GAO report admits, however, that in the total context of the Armament realinement it is no longer possible to isolate annual recurring cost reductions due to Frankford Arsenal specifically. The previously reported savings due to Frankford Arsenal closure were generated by studies which did not include any other realinements of the armaments activities.

COMMANDS AND PERSONNEL

Mr. MCKAY. When you talk about Civil Service rules, have you ever had to maintain or create a command to substantiate a position for a man you had to keep. Do we have to keep commands around that are unessential to meet the Civil Service requirements?

Mr. AUGUSTINE. No, I can't cite a case like that.

Mr. MCKAY. Perhaps we should check into that a little bit. Maybe we have a back-door operation we can't handle.

General LEWIS. I would like to address the inference behind the statement as I understand it.

There is a number of headquarters we are doing away with in this reorganization and we can make available the number of high-level positions we are reducing.

[The information follows:]

Number of reductions due to realinement

GS–15	16
GS–14	86
GS–13	116
Total	218

General LEWIS. For example, Picatinny Arsenal, as Picatinny Arsenal with its headquarters, comptroller and all the support activities, goes out of existence, as does Frankford. They are, in effect, command headquarters. In place of those two, yes, we are creating an R. & D. Command and I would hope we have taken advantage of the opportunities to which the Secretary just spoke.

Mr. MCKAY. You eliminate two commands and create one.

General LEWIS. In essence.

Mr. MCKAY. What do you mean by that?

General LEWIS. I don't know your description of "command."

Mr. MCKAY. I don't either. That is what I want to find out. I am wondering if we have a hobgoblin here between Civil Service and what commands are commands and aren't commands.

General LEWIS. I guess the best evidence is that we are taking some rather severe reductions and from the outcry from each of the areas, including the Picatinny area, as to the size and scope of the reductions.

Mr. MCKAY. So you are abolishing, but you are not abolishing?

General LEWIS. We are abolishing.

Mr. AUGUSTINE. Take Frankford as a case in point. There will be no more guards there, no maintenance there; we will shut it down. There won't be a management there.

SPAN OF COMMAND

Mr. McKay. What is your span of command?

General Lewis. How many people?

Mr. McKay. Yes.

General Lewis. 24,000 approximately.

Mr. McKay. These are not the ones who report to you, who you manage?

General Lewis. Yes, sir. Additionally, at the present time, there are about 15,000 contractor personnel we are responsible for.

Mr. McKay. You are responsible for, but you don't talk to 24,000 people?

General Lewis. My subordinate commands are each of the arsenals.

Mr. McKay. How many subordinate commands report to you directly?

General Lewis. Frankford, Picatinney—I believe it is seven subordinate commands. I have, in addition, through a subordinate commander, all of the commanders of the ammunition plants reporting.

Mr. McKay. I think under business management rules a maximum span is somewhere between 10 and 15 people. Is that right?

General Lewis. I think the number would depend on the complexity and importance of the operation. We work on the most basic of the Army materials and that is guns and ammunition.

In ammunition we produce much of it within Government-owned contractor-operated plants. I am responsible for that.

I have to say I have more than seven who report to me. For whatever reason, we have described our headquarters to include actual operational elements. For example, we have a national inventory control point that employs hundreds of people to manage the items we have in the hands of the troops and trigger procurement actions where we are short. We have a national maintenance point. We have a huge procurement office. I would consider those commands. These are operating activities. At any one time we may be responsible for $4 billion. This is, by the way, a massive organization.

Mr. Augustine. To specifically answer your question, I too would agree that 15 would be a very large number to have reporting to you.

Mr. McKay. I think that is the outside. It has to be modified according to the intensity of the command, I suppose, but that would be considered the outside. If our optimum is down at three or four per person, perhaps we are overloaded. That is my point.

The General may have 24,000 people but he is not directly responsible for them. He has a select few who then in turn have a span of their command. That is what we are talking about.

FRANKFORD CLOSURE

Mr. Sikes. Let me see if I can get down to the crux of this problem.

Mr. Secretary, do you plan to close Frankford whether or not this reprograming is approved?

Mr. Augustine. Yes, Mr. Chairman, we would plan to do that.

Mr. Sikes. How would you proceed without the authority which would be given in a reprograming?

Mr. Augustine. Mr. Chairman, we have presented to the Congress our plans to close Frankford and to move those people principally to

Picatinny. The reason we need the reprograming is to provide better facilities than now exist at Picatinny for these people to go into.

Now, of course, if the Congress were to direct us that we could not implement this new organization and could not close Frankford then, of course, that would be the end of it and we would forget it. But the reprograming purpose is to provide better facilities than are now available, principally through improvement. There are 13 buildings involved, 12 of which would be upgraded, 1 would be new construction.

Mr. SIKES. None of your plans envisions the rebuilding and continuing utilization of Frankford?

Mr. AUGUSTINE. We have looked at as many ideas as we can which were created by the Army and some very constructive suggestions by the city of Philadelphia and others, to see if there isn't some way to continue to use all or a part of Frankford and I guess about the closest we have been able to come to a reasonable solution that involves the continued existence of Frankford is the solution proposed by Philadelphia, but even that one costs us $10 million a year more in the long term than the one we are planning to pursue, so the answer is, try as we can, we don't find a reasonable solution that involves keeping Frankford going.

Mr. SIKES. Mr. Murtha, you were kind enough to help the committee by examining the facilities that we are discussing and presenting some background information useful to the committee. Do you have some questions?

Mr. MURTHA. Yes, sir.

The conclusion is, you are going to close Frankford, regardless? Of course, we are concerned with the economic impact in Pennsylvania.

IMPACT OF APPROVAL OR DISAPPROVAL OF REPROGRAMING ON PERSONNEL

What impact is it going to have on the people who work at Frankford if the reprograming doesn't go through? Is there any direct relationship between the reprograming, and the people who would be transferred from Frankford to Picatinny, or any other arsenal?

Mr. AUGUSTINE. The only real impact would be those people who did accept jobs at Picatinny, some of them would be working in buildings that are much less than desirable buildings to be working in. The buildings would not have been upgraded at Picatinny.

Mr. MURTHA. What is going to happen at Picatinny if the reprograming does go through?

When I was up there, somebody said there would be 1,000 people who were going to be laid off for a period of time, or there would be a problem at Picatinny and this may affect the people coming from Frankford. Is that true, or is this not true?

In other words, what I am asking is, What impact does this reprograming have on the people who are going from Frankford to Picatinny and also on Picatinny if it is not approved right away?

General LEWIS. In our consolidation and our plan to create the R. & D. command, we have taken the reduction the Secretary referred to before. If we are not permitted to execute that plan, as we planned it, we would in some cases still have to take the reduction and so the reduction would be made in place, either at Frankford, or Picatinny.

Our productivity would go much lower because a higher and higher percentage of the funds provided us would go into overhead keeping the facilities open.

Mr. MURTHA. Are you saying there are people working at Picatinny today or people to be transferred from Frankford who would not be able to go to work right way if the reprograming doesn't go through; is that what you are saying?

General LEWIS. Certainly not going to work efficiently or effectively.

Mr. MURTHA. Would they be laid off or what would be the status of those people, and how many people would it involve?

General LEWIS. I can't give you the number here. I will try to provide that.

[The information follows:]

Current plans call for transferring the same numbers of personnel even if the reprograming request is not approved. The working conditions and hence the productivity would, however, be adversely affected by such a decision. The impact on personnel layoffs of not approving the request would be minimized by the following procedures:

1. Those personnel expected to be in facilities affected by the MCA funds, will be brought to the Dover site and housed in buildings that will provide less than optimum facilities to perform their functions.
2. The buildings to house the personnel will have power, heat, and sanitary facilities provided under Picatinny Arsenal operational funds.
3. In selected areas, iincreased contract effort may be required to supplement the in-house work.

Mr. AUGUSTINE. I think we have to answer that very carefully. With regard to the reprograming, if it didn't go through, we shouldn't say that that is what caused people to lose their jobs. It would not. It would just cause them to work in a less sufficient facility.

Even if we were told not to continue with our planned reorganization, we still would lose jobs because the Army is under an end strength reduction in civilian employees, a severe reduction, and some of those would be allocated to Frankford, Picatinny and so on. The question would be whether we take them in this manner or whether we would continue to operate Frankford and increase the loss at Picatinny, Rock Island, and so on.

ASLEEP ON THE JOB

Mr. MURTHA. One of the things I noticed at Picatinny—it could have been that I happened to walk into an area where they weren't working, but Gunn McKay was talking about reducing the number of people involved in top management and, of course, also reducing the number working at the jobs.

Mr. Chairman, General Lewis and I were both shocked to see a whole room of people doing nothing at all. I suppose there were 75 or 80 people in that room. One fellow was asleep.

Mr. SIKES. He was doing something.

Mr. MURTHA. He was the only one really doing something. It was embarrassing to me and to General Lewis. It was certainly unacceptable the way those people were working. I am sure that this kind of thing will be stopped.

I don't know whether it is better organized at Frankford, but that was really embarrassing to say the least, and the thing the public is so

upset about is the fact that you have a number of people employed in a location who aren't doing anything. It certainly wasn't near lunch time. It was 2 or 3 o'clock in the afternoon and there didn't seem to be any excuse for it.

BACKFILL FOR FRANKFORD

Is there anything at all we can do to alleviate the adverse economic impact? For instance, we have talked, in this committee, about the possibility of moving the Defense Supply Agency out of Cameron Station. Is there anything you can tell us, Mr. Augustine, about the possibility of taking up this slack in Philadelphia? About 10,000 people have been lost in Philadelphia, and each of these realinements makes it worse. I realize what you are saying, and I know what the studies indicate, but in Pennsylvania we have such a high unemployment rate and Philadelphia in particular. Is there anything at all that can be done in addition to the studies that have already been proposed?

Mr. AUGUSTINE. I surely understand that. We are continuing to look to see if we can find some way to backfill, but in fairness to the people there I guess I would have to say there are not many good opportunities that we can see right now. We will continue to look, but I am afraid the bottom line at present is just not very encouraging.

Mr. MCKAY. It often seems to me that when you are reducing, there is no place you can reduce unless you backfill and then you haven't reduced anything. You have just played checkers.

Mr. AUGUSTINE. That is the danger. The only way that a backfill would make sense would be perhaps if there were six small installations in Philadelphia that were now operating, and we could move them all into Frankford, which is larger than any one of the six. Then you might argue the checkers game is appropriate.

You are right, you have to be careful. You just don't move people around.

Mr. MCKAY. We might be just moving people around, not helping the Defense system, and costing ourselves money in the process. You have to leave facilities that are in good shape and you have to build new facilities where you move to.

The testimony before this committee has been that the buildings are so old that they are not worth fixing, they should be torn down. Now you are going to upgrade those.

Mr. AUGUSTINE. I think the best assurance we can give you is that the cost savings we have quoted have been reviewed by GAO; we have been in and out of court numerous times and we have yet to have a decision go against us.

I think it has been scrubbed; I think the numbers do stand up. I think the savings are real. That is about the most assurance we can give.

CONDITION OF FACILITIES

Mr. MURTHA. It is my impression, if you compare purely the physical aspects, there is no question Frankford Arsenal is older, but the buildings are in good shape. I can see the advantage of having the space that you have from an objective standpoint in Picatinny, but I couldn't see that the buildings were any better at all. As a matter of fact, many of them were not air-conditioned and I am sure there would have to be substantial renovation in moving to that area. I feel it will cost an

awful lot more. I know there is nothing this committee can do in order to change what you have already made a decision on.

I have a great concern about the expense that will be incurred at Picatinny later on in order to renovate the buildings, to improve them, because there is a disparity in my estimate in the physical condition of the facilities.

I realize you have more room at Picatinny and if you wanted to build that up to the only arsenal in the United States, where you did everything, I suppose you could do that. I can see there is room for expansion because of the space that you have there.

I have a great concern that an awful lot more money than you anticipate will be spent at Picatinny in the future.

I guess there is nothing we can do to change that. You have made up your mind, based on the studies and we are out in left field in Philadelphia. The impact is another 1,200 people and their families who will have to move or find jobs some place else.

It is disconcerting to me that these decisions have such unpleasant effects on people and on the economy of Philadelphia.

Mr. AUGUSTINE. I wouldn't want to challenge the costs you mention. Every one of those costs is a very real cost at Picatinny. We will have to pay those. Nonetheless, the savings I have mentioned include those cost estimates and the savings I have quoted are a net savings after we do those things you say we will have to do.

SPENDING BEFORE REPROGRAMING APPROVED

Mr. MURTHA. Yesterday a Member of Congress told me you are spending operating money right now which will later be replaced by the reprograming money. Is there any truth to that charge? In any of this reorganization or consolidation, are you spending operating money to repair facilities which later on would be replaced by this reprograming?

Mr. AUGUSTINE. I will ask General Wray to address that.

General WRAY. I am not aware of any such expenditures.

General LEWIS. You mean are we doing some work now and when we get the reprograming would we take the money from that?

Mr. MURTHA. Yes.

General LEWIS. I am not aware of that.

Mr. NICHOLAS. This could well be R. & D. money used to move equipment or personnel, or for establishing offices or paying a telephone bill for your provisional command.

Mr. MURTHA. The point is that the Army is going ahead without the authority of this committee; you are asking for reprograming, but you are going ahead and doing it because you expect this to be done, but this is not true.

Mr. AUGUSTINE. It is not.

ESTABLISHMENT OF ARMAMENT DEVELOPMENT COMMAND

Mr. SIKES. At what stage is the Army in its establishment of an Armament Development Command?

General LEWIS. We have for several days been putting people into the jobs on paper. It is called a slotting action by people in personnel.

We are engaged in that now. We would hope to have that done in a very few weeks. The step before the slotting action was to get approval of our organization and that is done, as you probably know, in the form of table of distribution and allowances called TDA.

They have been approved and you have a few selected people doing the slotting action and they are doing it from people competing for the jobs.

When that is completed, we will make job offers and at the same time tell people they don't have a job. That would be in the October–November time frame. We expect right after that to start moving people to the R. & D. command.

CONSTRUCTION WORK

Mr. SIKES. What has been done toward modifying and rebuilding facilities in preparation for this move?

General LEWIS. The only work we have done to my knowledge is that work that is authorized that we currently have authority for.

Mr. NICHOLAS. Does that mean minor construction, O&M, R. & D.?

General LEWIS. Yes.

General WRAY. We are still in the design stage at the present time. We expect to complete our design for the new facility, the new tech-data building, in November. We expect to complete the design for the remainder of the work, the alteration of 12 buildings, in December. Until we have that design completed, we will not be ready to proceed with construction work.

AUTHORITY FOR ACTIONS TAKEN

Mr. SIKES. What, if anything, has the Army done toward this consolidation or move that formerly would have required specific approval from Congress?

Mr. AUGUSTINE. Mr. Chairman, we have made no moves that are inconsistent with the Congress' review and approval. The Congress has been given copies of our studies. I personally have appeared before this committee, I guess three times now, on this topic. We have done nothing that is not consistent with congressional guidance and, of course, we wouldn't.

CONCENTRATION

Mr. MCKAY. We are talking about consolidation on the one hand. From a strategic standpoint, do you have any concern about consolidating armament bases or supply bases?

Mr. AUGUSTINE. We are doing some consolidation in that area.

Mr. MCKAY. There was a policy at one time to disperse so we have scattered targets but you are backing down somewhat on that?

Mr. AUGUSTINE. I think we are coming down somewhat. I don't think we would ever want to be in the position where we are all in one place, but with the advent of nuclear weapons, if it gets to the point that they are dropping nuclear weapons on cities in this country, I am afraid the risks of consolidation just aren't that great. In other words, we won't save ourselves by being able to build more artillery rounds when we come to that.

The costs are greater if you don't consolidate, so I would say there is a shifting toward greater consolidation.

We wouldn't want to put all our eggs in one basket if we could avoid it.

Mr. McKay. You are doing that though, to some extent.

Mr. Augustine. One must distinguish between R. & D. facilities and production facilities.

Mr. McKay. We have to think of both factors.

DIFFICULT PLANNING TASK

Mr. Talcott. I would like to express some empathy and appreciation for what the Army is trying to do. Obviously, we have to consolidate. We are still winding down from Vietnam. We are still trying to develop better management and the only way you can have better management is to be leaner. We have learned that from every war and every historical event and from business itself. We can't afford to have as many military bases and facilities as we now have or we will just bleed ourselves unnecessarily. Yet the Army has to be prepared for every contingency imaginable.

General Motors couldn't even plan ahead 5 years on the size of the car the American people want, which is really a simple economic prediction. But you people have to be prepared for nuclear holocaust, or a little brush fire action somewhere. You have to be prepared everywhere for anything. This is a tremendous responsibility. To do it efficiently and economically, there just have to be some base closures and some consolidations and it hurts.

PERSONNEL TURBULENCE

I would like to say I appreciate your saying you are concerned about the turbulence that you cause. It is too easy for some general—two-star, four-star or whatever—to make some decision and expect the colonels, majors, captains and enlisted men all to respond favorably. I don't think you appreciate the ripple effect.

You say you have a number of people you have to respond to on a day-to-day basis. But you ought to know whether the 75 people Mr. Murtha referred to have work or not.

You ought to know how moves affect families. If they have to move and change jobs, causing considerable inconvenience for families who are shifted around, you should know that. If you don't appreciate the problems you are causing for personnel, you are adversely affecting the most important asset we have, which is people.

People fight your wars and defend the peace. I appreciate your even recognizing that sometimes generals can cause turbulence down below. Usually generals make a decision and they could care less what happens to the enlisted men and their families who are many echelons down. If you don't care about them, you are going to adversely affect our ability to respond to all of these various contingencies that arise because the people are going to hate it.

You didn't know about the 75 people who were not working and I can tell you there are lots of people in the enlisted ranks who are very upset about the higher ups' lack of concern for the man and his job and how he is going to do it in the weeks and months and years ahead, and the impact it is going to have on his family. His family is

a very important aspect of his performance in the field, in the lab, or wherever he is.

General LEWIS. I would like to respond not for all generals, but for one general. I have a problem speaking for others. I also have a family.

Mr. TALCOTT. Your family isn't affected by a move you order for others.

General LEWIS. Excuse me, sir. My wife moved last December and she will move again this November.

I have served as an enlisted man during World War II. I have walked the community I now command. I spent a year walking that community doing a study of the community. I don't know what type of justice you call it, but after we finished the study our Secretary approved it and someone turned to me and said, "Now, fine. Execute it."

By the way, we did the study as if we had to execute it. If you will read the study, or have some of the staff read it, you will find we spent quite a bit of time on the people. As a matter of fact, the major problem is the people and, of course, the solution rests with the same people.

We have tried to establish an organization where management is responsible for the care and feeding of the people.

Lifting the administrative burden off of them. We didn't find too many sleeping, though they were some thousand miles distant from my headquarters. We found they were doing a lot of paperwork rather than doing real work. We are trying to lift the paperwork so they can do the real work. They complain about doing the paperwork but we find they are more satisfied doing that than they are making tough decisions and doing something productive.

You will find a very slimmed-down organization in terms of managers and supervisors.

Mr. SIKES. Under the modern structure of defense, it is more difficult for those in command positions, particularly higher command positions, to maintain direct contact with the troops. We just aren't structured that way any more. It is an unfortunate thing when a general loses contact with the people he commands, and a general who is worth his salt is going to find some way to maintain as much contact as he can, and I find by and large that they do.

Mr. TALCOTT. Mr. Chairman, before we get too far away from what I thought I was trying to say, I was trying to commend you and have some empathy with you for at least expressing that you recognize there was some turbulence. This is the first time I have heard that word mentioned. I want you to know it is a lot more than turbulence. It is real hardship; it is real inconvenience; it is real misery for some of the people down below.

I want to commend you as far as you have gone in your attempt to restructure and to reorganize and to redirect your management. I think there is a lot more we can do. We have to be concerned here. We are not in the weapons business; we are not in the personnel business; we are in the facilities business but they are all interrelated.

It wasn't too many years ago this committee found that you people, you generals, didn't even consult with the wife about family housing. Now, that is a real fact.

Now you are doing it a little bit better and I want to commend you for what you are doing, but we still aren't going far enough.

As the chairman says, the best people in management in General Electric and Coca Cola, their top management people get down with the people doing the work and the more successful ones get down more frequently.

On our side of the table, we ought to have some empathy with the enormity of the contingencies that you are required by law to cope with. If restraints are put upon you by the communities, by politics—and there is money in all of these things, but I think we have to demand a lot of things, as much as you have to demand some things from your side.

That is all I was trying to express, that I am grateful for some of the things that you are doing.

Mr. SIKES. With regard to the 75 people not working, perhaps you could put a sign on the door, "Your General may come through at any moment."

REPROGRAMING NOT PREREQUISITE FOR RELOCATION

Is the approval of the Army's request to reprogram $7.3 million for facilities at Picatinny a prerequisite for the closure of Frankford Arsenal or the establishment of an armaments development center?

Mr. AUGUSTINE. No, sir.

Mr. SIKES. Desirable but not necessary?

Mr. AUGUSTINE. Yes.

Mr. SIKES. You intend to proceed as far as you can under the authority which you have in this direction, with or without the reprograming?

Mr. AUGUSTINE. That is exactly right, Mr. Chairman.

PURPOSE AND SCOPE OF REORGANIZATION

Mr. SIKES. Mr. Secretary, why do you feel that this particular reorganization, as opposed to previous Army reorganizations, will cure your problems with Army armaments development and procurement? General Lewis, what are your views on this?

General LEWIS. Two of the major criticisms of the AMARC study were: (*a*) too much emphasis by each major subordinate command on readiness at the expense of development and (*b*) too little emphasis on systems development. The reorganization separates the Armament Command into two commands, a Research and Development Command and a Materiel Readiness Command. Each commander would then devote full time to his own area of responsibility. The reorganization emphasizes systems development by consolidating all weapon systems into two systems-oriented laboratories and collocates them (except for the large caliber tube development) with the command headquarters at one site. This consolidation provides the essential management efficiencies and opportunity for mission effectiveness by joining the weapon, fire control, ammunition, and fuze components in systems-oriented laboratories capable of quickly reacting to mission needs and mission workload fluctuations.

Mr. SIKES. Having decided upon a three-site concept, why do you feel you can accomplish great things at three sites rather than by re-

organizing at five sites? Why is this amount of consolidation, and no more, necessary? You may provide this for the record.

[The information follows:]

The heart of the Armament Research and Development Command is the headquarters and two major weapon systems laboratories, with their attendant support. The present plan calls for these laboratories to be at one location, with a second location at Aberdeen for ballistics technology and chemical systems. The small contingent at Watervliet (326 personnel) is a part of the Large Caliber Weapon System Lab at the third location; however, it will draw most of its support from Watervliet Arsenal, which will continue to function primarily in support of the arsenal production, engineering and processing missions. Each additional location becomes increasingly more expensive to operate and more inefficient to manage as a total entity.

Watervliet Arsenal performs a unique mission that cannot be duplicated economically elsewhere; consequently, it was retained. Since Watervliet will continue as a government installation, the retention of a limited number of development personnel there is absorbed at almost no additional cost in annual operating overhead costs. This is not the case with Frankford Arsenal, for instance. Picatinny Arsenal, the location of the Large Caliber Weapon System Laboratory, was the selection for the location of the Small Caliber Weapon Systems Laboratory because this minimizes the installation support services, provides for greater flexibility in personnel utilization, greater assurance of technological transfers between the Large and Small Caliber Weapon Systems Labs, reduction of management layering, one procurement directorate, one technical support directorate and one product assurance directorate. In short, it provides the best balance of costs and benefits.

Consolidation of fragmented activities.—Expanding the Armament Research and Development Command to more sites only further fragments its implementation, increases costs, and degrades effectiveness in the following areas:

(*a*) *Internal interfaces.*—Management would require split offices for the Armament Concepts Office, System Evaluation Office, Procurement, Personnel, etc. As a critical mass of skills would be required at each location, considerable duplication would result. The direction of the Large Caliber Weapons Systems Lab, which under the present plan is in one office, would not be distributed on a component basis among five locations. Further, all of the project managers would be collocated with the development laboratories in the present plan. The Small Caliber Weapons System Lab would be removed geographically from explosive and propellant technology located in the Large Caliber Weapons System Lab. Separation of the two weapons laboratories impedes technology interchange. Collocation increases interaction of personnel in the functional areas of weapons, munitions, fire control, fuzes, and supporting disciplines, as well as an opportunity to share unique facilities.

(*b*) *Flexibility of the work force.*—Separation of the laboratories removes the flexibility in the use of an interlaboratory work force on special projects, reducing the enhanced capability of the Armament Research and Development Command for a quick response in time of emergency. It also limits individual and organizational opportunities for broadening assignments and for advancement by requiring individuals to make more family moves to accept jobs.

(*c*) *External interfaces.*—Further fragmentation of the weapons laboratories increases the complexities of the interactions with external agencies, and private contractors.

LOSS OF SKILLED PERSONNEL

Mr. SIKES. There will be considerable disruption and loss of skilled personnel and technical expertise, not only at Frankford Arsenal and Rodman Lab, but also at Picatinny. Why are you confident that this can be kept within limits that the Army can tolerate? Are you sure that you can deliver on improvements in the process which will outweigh these losses?

General LEWIS. We are doing the best to manage the loss. In the way we phase it and in the way we have support from arsenals not as affected, including support from the Navy and from industry to cover some of this. We are very encouraged by some of the responses we got

in the critical areas. Picatinny, for instance, is expediting its acceptance of the fire control and shell metal parts missions.

With regard to the canvass letters, we received over 50-percent positive responses. That doesn't mean everybody was going to go, but that was far higher than we ever estimated.

Mr. SIKES. Do you feel that you will be able to retain the people who are most essential to your operation?

General LEWIS. Not in all cases. Again, we are trying through the slotting action following all the rules and all the regulations, to insure that we get sufficient key people, but we have no guarantee.

Mr. SIKES. You know you are going to give up key people. How can you be sure you can deliver on the improvements that you seek?

General LEWIS. I would give the response the Secretary gave earlier.

Mr. AUGUSTINE. I think we view this as an opportunity to go out and seek the best man available in the country for each of the jobs that is left open. There is no reason to believe that we can't find very capable people to fill those jobs.

ADDITIONAL COSTS

Mr. SIKES. For the record, our committee staff feels that the Army's estimates of long-range costs for constructing new range facilities are probably low and that Army estimates of personnel training costs as a result of reassignment and replacement may be low. Could you provide further detailed justifications for your estimates in these areas, showing a range of possible costs?

[The information follows:]

We feel that our estimates for costs are the best we can predict at this time. The GAO report shares the Army's confidence in the one-time cost calculation. With respect to training and personnel replacement we are quite optimistic and we have no indications at this time that our predictions were not realistic.

Based upon the percentages of personnel expected to move with their jobs, it is realistic to anticipate an adequate cadre of personnel in all areas. Canvass letters recently returned by these personnel, while not binding, showed a significantly higher favorable response rate than was predicted earlier. As most of these transferees would be performing essentially their identical functions at a new location, it is expected that they will be acclimated quickly.

The majority of the R. & D. personnel, programs, and facilities will effectively transfer in place. This is true of programs and personnel at Picatinny, and Edgewood Arsenals and at the Benet and Ballistics Research Laboratories. The personnel turbulence is expected to be at a very minimum at those locations.

In many instances, the design and development of small and large caliber ammunition are closely related. Explosive fillers, propellants, fuzes, ballistics, and structural designs are inherent in development of both types of munitions. Much of the large caliber munitions expertise transferring in place at Picatinny Arsenal could be used in small caliber ammunition design, should the need exist.

Responsiveness to programs and schedules will be enhanced on several accounts as a result of collocation of the two major weapons development laboratories with the commander, technical director, the headquarters staff office and the project managers. Assembly of the proper expertise in response to a field emergency for a technical development problem or for an ad-hoc team to assess the risk of a new venture, would be greatly enhanced. Rotation of the workforce into areas of heavy workload, cross-training of skills and the flexibility of assembling the best team for specific problems are significant advantages.

The mixture of expertise from Frankford Arsenal and Rodman Laboratory with new personnel recruited for any vacancies is expected to result in a revitalization of the work force. Fresh ideas from the new blood properly guided by the old blood should be beneficial in obtaining a productivity that should exceed that of the past. This revitalization is especially important to those high technology

areas where the state-of-the-art is constantly advancing. With the expectation of the higher personnel transfer rate and the proper program transition planning, the opportunity to infuse the new hires into the system will be greatly enhanced.

TRAINING COSTS

The training cost cited in the CSJF, and accepted by the AAA and GAO, was the average training cost per employee and does not include the salary of the employee being trained. The amount of time required for a new employee to become productive varies considerably and is dependent on many factors.

Based upon the percentages of personnel expected to transfer with their functions, an adequate cadre is anticipated in all areas. The transferring expertise would be available to aid the on-the-job training of new employees.

In some of the high technology areas, the training may actually run in the opposite direction. Here, the newer employees may be more technologically advanced than some of the transferring employees.

The need for training may be further offset by similarities in commodity development. For example, should a shortage in small caliber ammunition designers occur, owing to nontransfers from Frankford, some of the large caliber ammunition designers at Picatinny could be effectively transferred to the program.

RANGE COSTS

Re-establishment of the Frankford Arsenal Ballistics Range at ARRADCOM is not planned. As part of the (CSJF) ARRADCOM implementation existing capabilities within DARCOM will be utilized. These facilities are: (1) Picatinny Arsenal; (2) Fort Dix; (3) Test Range at BRL; and (4) TECOM Range at APG.

Overflow of testing at Picatinny Arsenal will be done first at Fort Dix, second BRL, and third TECOM at Aberdeen. All facilities are adequate to perform assigned mission. At one time, as part of the ARRADCOM planning, a new range at Picatinny Arsenal which would provide modernized capabilities for the ARRADCOM mission had been costed at $2,500,000 in fiscal year 1976 dollars. This range would have included construction of the facility, transfer of some equipment from Frankford Arsenal to Picatinny Arsenal, and purchase of the remaining necessary equipment; however, this proposal has been dropped from construction requests.

Current program to develop low-cost nonexplosive training projectiles may have the secondary benefit of permitting shortened test ranges in semiprotected areas. These projectiles may be particularly suitable for exercising weapons systems or components, fatigue testing of tubes, testing propellant charges, or many other tests utilizing shorter ranges.

EXAMINATION OF PHILADELPHIA PROPOSAL

Mr. SIKES. Has the Army ever specifically examined the Philadelphia congressional delegation proposal for Frankford Arsenal and, if not, why not?

Mr. AUGUSTINE. In great detail, Mr. Chairman. General Lewis might want to elaborate on that.

Mr. SIKES. Provide a detailed discussion for the record.

General LEWIS. We will make available to you the latest review made.

Mr. SIKES. When was that review made?

General LEWIS. In May.

[The information follows:]

The following information is an excerpt of the essential portions of the Army's evaluation of the "Philadelphia Proposal."

The economic analysis compared applicable portions of the announced Armament Research and Development Command (ARRADCOM) realinement with the March 1976 Frankford Arsenal proposal. It was based on the best available estimates of the costs associated with the Small Caliber Weapons Systems Laboratory (SCWSL) portion of the announced realinement, with the March 1976 Frankford Arsenal proposal. The specifics are as follows:

Manpower estimates for applicable portions of the announced ARRADCOM realinement as well as for the March 1976 Frankford Arsenal proposal are in figure A. The base operations support personnel required to support the SCWSL at Picatinny Arsenal as currently planned was computed by applying a proportionate percentage of the base operations support personnel at Picatinny Arsenal against the SCWSL—a procedure which provides a reasonable estimate. The base operations support personnel required to support the SCWSL at Frankford Arsenal under the proposal is estimated to be 343, with an additional 97 base operations support personnel at Picatinny Arsenal in support of the SCWSL. Base operations support necessary for the Frankford Arsenal proposal has been minimized by providing for maximum support from Picatinny Arsenal. Support in areas such as special assistance staffs, (EEO, small business, et cetera), personnel, force development, comptroller, and procurement would be provided from Picatinny Arsenal.

The cost analyses for applicable portions of the announced ARRADCOM realinement as compared to the March 1976 Frankford Arsenal proposal are in figures B and C. As in the case of manpower estimates discussed above, these data are based on the most accurate information currently available and are considered reasonable for comparative purposes. Nonrecurring costs for applicable portions of the announced realinement are approximately $22.7 million as compared to $4.9–22.6 million for the March 1976 Frankford Arsenal proposal. A $4.9–22.6 million range for nonrecurring costs associated with the proposal is required due to the uncertain nature of construction required at Frankford Arsenal to support the delegation's proposal (see figure B). The nonrecurring costs are, therefore, estimated to be between $.1 and $17.8 million less to implement the proposal than for applicable portions of the announced ARRADCOM realinement. Annual recurring costs for applicable portions of the announced realinement are approximately $30.6 million as compared to $40.7 million for the March 1976 Frankford Arsenal proposal. The annual recurring costs are, therefore, estimated to be $10.1 million less for the applicable portions of the announced ARRADCOM realinement than for the March 1976 Frankford Arsenal proposal.

Based on the above, the $10.1 million annual recurring cost advantage that the ARRADCOM realinement has over the Frankford Arsenal proposal permits offsetting the $.1 to $17.8 million nonrecurring cost advantage of the proposal in less than 2 years after completion of the realinement, even accepting the delegation thesis that no construction would be required at Frankford Arsenal under the proposal. Rather significant construction/modification might be required if a SCWSL were to be consolidated in a relatively small number of contiguous buildings now existing at Frankford Arsenal, which could reduce the offset period to less than 1 year.

FIGURE A

ESTIMATED MANPOWER REQUIREMENTS

Category/location of manpower requirements	Applicable portions of announced ARRADCOM realignment				March 1976 Frankford Arsenal p roposal			
	Source				Source			
	Trans-fers in	Recruit-ment	Available on site	Total	Trans-fers in	Recruit-ment	Available on site	Tota l
Mission requirements	203	607	0	810	68	202	620	890
At Frankford Arsenal	0	0	0	0	(60)	(180)	(620)	(860)
At Picatinny Arsenal	(203)	(607)	0	(810)	(8)	(22)	0	(30)
Mission support requirements	101	304	0	405	5	15	500	520
At Frankford Arsenal	0	0	0	0	0	0	(500)	(500)
At Picatinney Arsenal	(101)	(304)	0	(405)	(5)	(15)	0	(20)
Base operations support requirements	0	0	175	175	24	73	343	440
At Frankford Arsenal	0	0	0	0	0	0	(343)	(343)
At Picatinny Arsenal	0	0	(175)	(175)	(24)	(73)	0	(97)
Total manpower requirements	304	911	175	1, 390	97	290	1, 463	1, 850
At Frankford Arsenal	0	0	0	0	(60)	(180)	(1, 463)	(1, 703)
At Picatinny Arsenal	(304)	(911)	(175)	(1, 390)	(37)	(110)	0	(147)

Note: (1) The above structure for the Frankford Arsenal proposal is based on minimum duplication of mission and mission support personnel. Limited duplication at Frankford Arsenal would be essential, however, in areas such as product assurance, materiel fabrication, fire control, instrumentation, etc. (2) Base operations support necessary for the Frankford Arsenal proposal has been minimized by providing for maximum support from Picatinny Arsenal. Support in areas such as special assistance staffs (EEO, Small Business, etc.,) personnel, force, development, comptroller, and procurement would be provided for Picatinny Arsenal.

FIGURE B

COMPARATIVE COST ANALYSES

(Nonrecurring Costs)

APPLICABLE PORTIONS OF ANNOUNCED ARRADCOM REALINEMENT	
Item	*Cost (millions)*
Construction and renovation, movement, OSHA, office equipment, and Picatinny Internal moves which could be avoided (includes $7.7M MCA)	$12.12
Relocation costs—Frankford to Dover (244 at $6,600)	1.61
Relocation costs—Rodman to Dover (60 at $6,600)	.40
Severance pay (911 at $6,400)	5.83
Recruitment costs (911 total) [1]	2.72
40 percent at $6,900 plus 150	2.56
5 percent at $150	.01
20 percent at $500 plus 150	.10
35 percent at $150	.05
Total	22.68

MARCH 1976 FRANKFORD ARSENAL PROPOSAL	
Item	*Cost (millions)*
Construction and renovation at Frankford	[2] $0–17.7
Relocation costs—Frankford to Dover (37 at $6,600)	.24
Relocation costs—Rodman to Frankford (60 at $6,600)	.40
Severance pay (290 at $6,400)	1.86
Recruitment costs (290 total) [1]	.88
40 percent at $6,900 plus 150	.82
5 percent at 150	0
20 percent at $500 plus 150	.04
35 percent at $150	.02
Internal moves of equipment, equipment procurement for Picatinny needed due to nonavailability of Frankford equipment	1.50
Total	4.88–22.58

[1] Recruitment costs are computed by assuming that 40 percent of the total recruited are required moves over 200 miles at a cost of $6,900 each plus $150 basic recruitment charge. Five percent will be clerical, recruited locally at a $150 charge, 20 percent will be first duty station at a $500 cost plus the $150 basic cost, and 35 percent other personnel at the basic cost.

[2] An Army study conducted in 1974 determined that for a similar concept, construction and renovation and refurbishing of existing buildings, including substantial modification of utilities, would be needed at a total cost of $14.866M, which equates to $17.7M when converted to 1976 dollars. These construction requirements have not been validated and have, therefore, been shown as a $0–17.7M range in the above cost analysis. Rather significant construction/modification might be required if a small caliber weapons system laboratory were to be located in a relatively small number of contiguous buildings now existing at Frankford Arsenal.

FIGURE C

COMPARATIVE COST ANALYSIS

Annual Recurring Costs

APPLICABLE PORTIONS OF ANNOUNCED ARRADCOM REALINEMENT			MARCH 1976 FRANKFORD ARSENAL PROPOSAL		
	Item	*Cost (millions)*		*Item*	*Cost (millions)*
1,215	SCWSL mission and mission support personnel at Picatinny	—	1,360	SCWSL mission and mission support personnel at Frankford [1]	—
175	Base operations and general support personnel at Picatinny	—	50	SCWSL mission and mission support personnel at Picatinny [1]	—
1,390	Personnel at $22,000 per man-year [3]	$30.6	343	Base operations and general support personnel at Frankford [2]	—
			97	Base operations and gension support personnel at Picatinny [2]	—
			1,850	Personnel at $22,000 per man-year [3]	$40.7

[1] These requirements are based on minimum duplication of mission and mission support personnel. Limited duplication at Frankford Arsenal would be essential, however, in areas such as product assurance, materiel fabrication, fire control, instrumentation, etc.

[2] Base operations support necessary for the Frankford Arsenal proposal has been minimized by providing for maximum support from Picatinny Arsenal. Support in areas such as special assistance staffs (EEO, small business, etc.), personnel, force development, comptroller, and procurement would be provided from Picatinny Arsenal.

[3] Twenty-two thousand ($22,000) per year per person is the best current estimate of the direct personnel costs plus overhead. Included are: Costs of operating the installation but not directly relatable to a direct mission program.

Mr. NICHOLAS. In my tour around at Rock Island and Frankford and Picatinny, it seemed to me, in my own opinion, that the Philadelphia delegation proposal, the latest one, was fairly broadly drawn. However, nobody was supplying anyone else with details. The Philadelphia delegation wasn't supplying the Army with details and vice versa.

I have seen charts of what facilities might be required in addition to those mentioned in Philadelphia, but I have never seen any real specifics on how many buildings would be required, how big a fence would be required, which functions were going where. To some extent the Philadelphia proposal didn't spell them out. I have never seen anything from the Army side saying, "We can't do it this way" or "Yes, this corresponds so well with 'Plan B' that we looked at before that we are sure the variations are small."

General LEWIS. We will provide that for you. We had to make assumptions. We tried to get the detail. In our visit when Congressman Murtha was there, when they were asked for specifics on which buildings we were describing, we said that is up to you to choose.

Mr. SIKES. Provide this for the record.

The key issues on the Philadelphia proposal are the question of management and the annual costs of operation in support of a small caliber weapons laboratory at Frankford. What proof can you offer on both counts that Army assumptions are correct?

Have you any further information?

Mr. NICHOLAS. There is a tremendous disparity in the number of supporting personnel, for instance, which the Philadelphia delegation proposal assumes will be required and which the Army assumes will be required.

One way to measure this is to look at facilities with comparable numbers of people and see just how many people are required to operate that facility in the present-day Army situation.

I have tried to do that. It appears to me the Philadelphia proposal is low and I can't judge whether the Army proposal is just right, too high, or what.

Mr. SIKES. Amplify your position for the record.

General LEWIS. I would like to leave this with you if I may. If it is not adequate, we will try to provide more information.

[The information follows:]

The authors of the Philadelphia plan have not responded in the detail required to provide an analysis of the type requested by the committee. It is our judgment that the concept of the Philadelphia plan was intended, however, to represent the most effective utilization of existing facilities at the lowest cost. The Army's analysis, therefore, was based on that premise and relied in part, on the concise II study which had very similar goals. The paragraphs following contain background information leading to the Army's evaluation rationale and conclusions of the Philadelphia plan.

ECONOMIC ANALYSIS

The following is an economic analysis of new Philadelphia proposal contrasted to the current Army plan. The analysis is based on the best available estimates which could be made from the Philadelphia proposal and the estimated reduction in costs which could be made at Picatinny Arsenal if the small caliber weapon systems laboratory were established at Frankford. Where the Philadelphia pro-

posal lacks sufficient details with respect to personnel types, internal movement of equipment, renovation of equipment, et cetera, to make a detailed economic analysis, best etimates from previously approved studies have been used.

The current Army plan calls for the establishment of the small caliber weapons lab (SCWSL) at the Dover, N.J., site. It is to be collocated with the large caliber weapons systems lab (LCWSL), the product assurance directorate, technical support directorate and all other major staff offices such as Comptroller, Procurement, Systems Evaluation Office, Personnel and Force Development Office and the Program Management Support Office. As presently constituted, the SCWSL would be authorized a strength of 810 civilians. This includes the Fire Control Division and the Materials and Fabrication Division which services both large and small caliber programs. Estimates that follow are keyed to this identifiable laboratory strength.

A force structure ratio of one support person per two mission personnel is generally accepted. The support personnel are comprised mainly of product assurance, testing, experimental fabrication, instrumentation, engineering documentation and configuration management personnel. Therefore, it is estimated that 405 mission support are attributable to support of the 810-man SCWSL.

In general, if a mission is added to or deleted from a larger existing organization, approximately 10 percent additional base operations and general support personnel are added or deleted. To support this total of 1,215 mission and mission-support personnel, we have conservatively attributed 175 (instead of just 10 percent or 121) base operations and general support personnel in the current plan. The 175 estimate represents approximately 15 percent which in effect, overcharges the current Army plan and biases the comparison in favor of the Philadelphia proposal.

The recurring costs for the current Army plan were calculated as below:

SCWSL mission personnel at Dover	810
Mission suppport personnel at Dover	405
Base operations and general support personnel	175
Total personnel at Dover, at $22,000 per man-year[1] equal $30.6 million	1,390

[1] See note 1.

In examining the proposal to locate the small caliber weapon systems lab at Frankford Arsenal it was apparent that diseconomies would result in both (a) mission and mission support and (b) base operations and general administrative support. The following breakdown is a best estimate of the organization required at Frankford to perform the identical mission of the organization in the present Army plan.

	Philadelphia	Army plan	Net difference
SCWSL mission and mission support:			
At Frankford	1,360		
At Dover, N.J.	50	1,215	
Subtotal	1,410	1,215	195
Base operations and general support:			
At Frankford	343		
At Dover, N.J.	97	175	
Subtotal	440	175	265
Grand total	1,850	1,390	460
Personnel costs at $22,000 per man-year (millions)	$40.7	$30.6	$10.1

Diseconomies in the mission and mission support area would result in requirements for an additional 195 personnel as compared to present plan. These personnel would be distributed approximately as follows:

Added mission and mission support personnel

Inorganic chemistry	2
Energetic chemistry	5
Fuze	10
Fire control	5
Applied science	10
Hazardous munitions	2
Data processing	15
Testing	15
Engineering documentation	5
Material fabrication	60
Library	8
Instrumentation	13
Configuration management/micro data	20
Product assurance	15
Total	195

Two major reasons exist for the added personnel.

(*a*) Certain functions and skills presently exist exclusively in one laboratory. With a geographical split of LCWSL and SCWSL minimum capability would have to be established in the lab at the location that does not presently have any capability.

(*b*) If personnel resources are split between two locations, a buildup will be required to achieve the essential mix of skills at each site. This is particularly true within the technical support and product assurance areas.

Specifically, the first six functions in the above list exist exclusively in either the SCWSL or LCWSL. Consequently, minimum cadre of personnel will be required onsite in the laboratory not having the major mission. This modest complement of personnel will serve as resident experts, providing an interface with the major mission organization.

Data processing personnel in such specialized areas as computer graphics, numerical analysis, and programing will be required at both sites, this necessary duplication will result in an estimated addition of 15 personnel. The area of testing, particularly in the environmental test areas, will require duplication not only of personnel, but also of some facilities and equipment.

The collocation of SCWSL and LSWSL provides significant manpower economies in the area of material fabrication. Personnel working in these areas tend to specialize in the operation of a particular machine, process or assembly technique. Many of the tasks require very close coordination with R. & D. engineers as frequent changes and modifications are the nature of the business in R. & D. prototyping. This close coordination mandates an onsite capability. Collocation of the LCWSL and SCWSL labs permitted economies to be made in the design of the experimental fabrication organization. For example, advantage was taken of the similarity between some nuclear requirements and fire control requirements in electronic fabrication. These manpower savings would be negated by the geographical split in the Philadelphia proposal, which would reinstate some of the existing duplication. The same disadvantage would be found in the areas of engineering documentation (drafting and illustrating), library operations, instrumentation, configuration management (along with duplicate files and micro-data-equipment), and product assurance. A standards and calibration laboratory capability would have to exist at both sites. These labs are required onsite to accomplish a portion of the metrology function, ie., to calibrate onsite equipment and to assure that instrumentation and gages are accurate. It is estimated that the majority of the 15 added product assurance personnel would be needed for a duplicate standards and calibration lab.

As mentioned previously, 440 base operations and general and administrative (G. & A.) personnel will be required to service the SCWSL mission and mission support personnel in the Philadelphia plan. This was based on a force structure ratio of one base operation/G. & A. space per four total. This is conservative compared to the present plan for ARRADCOM at the Dover site, which has a force structure ratio of approximately one base operations/G. & A. person to three total.

The distribution of the 440 is shown below:

Total G. & A. + base ops personnel	
Commander's office	4
Special assistants (legal, foreign intelligence, protocol, small business, equal employment opportunity)	12
Safety	9
Civilian personnel office	19
Force development office	7
Computer operations, management information system	40
Comptroller	42
Plans office (program management support plus systems evaluation)	10
Procurement	30
Added G. & A. + base ops personnel	
Security	30
Facilities and plant engineering	125
Administration	33
Equipment manager	9
Transportation	30
Supply	40
Total	440

It should be emphasized that for most functions, continued general and administrative support will be provided from the main contingent of personnel at ARRADCOM-Dover. For example, of the 19 Civilian Personnel Office (CPO) personnel required, 4 will be located at Frankford and 15 will be located at Dover. The four located at Frankford would provide the interface with the parent CPO at Dover and rely on them for accomplishment of many functions. This is true for most of the officers listed save Facilities and Plant Engineering, Equipment Management and Transportation, Security, Safety and Supply. Of the 440 total base operations and general support personnel it is estimated that 343 will be required at Frankford and 97 at Dover.

This leads to a net added base operations/G. & A. personnel strength of 265 for the Philadelphia proposal.

Using the above required personnel levels for the present Army plan and the Philadlephia proposal, estimates were made of:

(*a*) The number of spaces associated with FA functions to be transferred to SCWSL and supporting organizations.

(*b*) The number of spaces associated with Rodman Lab functions to be transfered to SCWSL and supporting organizations.

(*c*) The number of personnel expected to transfer with their functions (25 percent average for both functions). (Note 3.)

(*d*) The number of personnel expected to be recruited.

(*e*) The number of personnel available on the site.

(*f*) The number of personnel who would receive severance pay.

The following tabulation indicates the expected number of personnel in each of the above categories, for each plan.

	Army plan					Philadelphia proposal (Army estimates)				
	Authorized spaces	Transfers	Recruitment	Available on site	Severance pay	Authorized spaces	Transfers	Recruitment	Available on site	Severance pay
Mission personnel:										
(a) At FA:										
(1) From FA						620			620	
(2) From RIA						240	60	180		180
(b) At Dover:										
(1) From FA	570	143	427		427	30	8	22		22
(2) From RIA	240	60	180		180					
Mission support personnel:										
(a) At FA:										
(1) From FA						500			500	
(2) From RIA										
(b) At Dover:										
(1) From FA	405	101	304		304	20	5	15		15
(2) From RIA										
Base operations personnel:										
(a) At FA:										
(1) From FA						343			343	
(2) From RIA										
(b) At Dover:										
(1) From FA						97	24	73		73
(2) From RIA										
(3) From Dover	175			175						
Total	1,390	304	911	175	911	1,850	97	209	1,463	290

Nonrecurring costs were calculated for the current Army plan and the Philadelphia proposal as shown in the following tables.

Nonrecurring costs (Army plan)

Current plan	*Millions*
1. Construction and renovation, movement, OSHA, office equipment, and P.A. internal moves which could be avoided	$12.12
2. Relocation costs—Frankford to Dover (244 at $6,600)	1.61
3. Relocation costs—Rodman to Dover (60 at $6,600)	.40
4. Severance pay (911 at $6,400)	5.83
5. Recruitment costs [1] 911 total:	
40 percent at $6,900 plus $150	2.56
5 percent at $150	.01
20 percent at $500 plus $150	.10
35 percent at (150)	.05
Total	2.72
Total	22.68

Nonrecurring costs Philadelphia Proposal (Army estimate) [2]

1. Construction and renovation at Frankford	$17.70
2. Relocation costs—Rodman to Frankford (60 at $6,600)	.40
3. Relocation costs—Frankford to Dover (37 at $6,500)	.24
4. Severance Pay (290 at $6,400)	1.86
5. Recruitment costs [3] 290 total:	
40 percent at $6900 plus $150	.82
5 percent at 150	0
20 percent at $500 plus 150	.04
35 percent at 150	.02
Total	.88
6. Internal moves of equipment, equipment procurement for Dover site need due to nonavailability of Frankford equipment	1.50
Total	22.58

[1] See note 3.
[2] See note 5.
[3] See note 4.

The difference in annual savings by the present Army plan is $10.1 million compared to the Philadelphia plan. The difference in nonrecurring costs of the two proposals is $0.1 million in favor of the Philadelphia proposal.

The proposal to locate the Small Caliber Weapon Systems Laboratory at Frankford states that the move could be accomplished using existing buildings with minimal conversion/renovation costs. The Army's Concise II (1974) study considered virtually the same concept; and to accomplish this, construction of a new $11,100,000 munitions engineering building at Frankford was considered necessary. In addition, several buildings would have been converted at a cost of $3,400,000 and several demolished at a cost of $366,000. The total cost of all of the above was estimated at $14,866,000. Converted to 1976 dollars, this comes to $17,700,000. But even in the unlikely event that the Philadelphia proposal could be carried out with no one-time cost at all, the $22.68 million one-time cost at Dover, N.J., of the present Army plan would be rceovered within 2 years by the recurring annual savings.

The following assumptions were made in the above analysis:

(a) Estimates of costs avoided at Picatinny Arsenal were based on functions not being transferred.

(b) Relocation costs for both the Philadelphia proposal and the Army plan were computed at $6,600 per person regardless of location or destination.

(c) Termination costs for both the Philadelphia proposal and the Army plan were computed at $6,400 per person (separation pay).

(d) Proposed minimum renovation/rehabilitation costs at Frankford were not defined in the Philadelphia proposal and therefore could not be commented on. As indicated above, the Concise II plan (which considered almost the exact plan now proposed by the Philadelphia delegation), concluded that construction and renovation costs necessary to accomplish this end would total $17.7 million (in 1976 dollars).

(e) Internal moves of equipment at Frankford would be necessary with the relocation of missions within the arsenal.

Notes

NOTE (1)

Twenty-two thousand dollars per year per person is the best current estimate of the direct personnel cost plus overhead. Included are: cost of operating the installation but not directly relatable to a direct mission program.

NOTE (2)

Army estimates based on duplicating the capability provided for in the Army plan.

NOTE (3)

The analysis utilizes an estimated transfer rate of 25 percent for both Frankford and Rodman personnel. Canvass letter recently returned by these personnel, while not binding, showed a significantly higher favorable response percentage.

Rock Island; 234 of 615 or 35 percent.

Frankford; 1132 or 2,500 or 45 percent.

Should higher transfer rates materialize, it would not appreciably affect the economic analysis. Although an overall transfer rate of 25 percent would be adequate for initially accomplishing the ARRADCOM mission at the Dover site, a higher transfer rate would, of course, be desirable.

NOTE (4)

Recruitment costs are computed by assuming that:

(a) 40 percent of the total recruited will require moves over 200 miles at a cost of $6,900 each plus a $150 basic recruitment charge.

(b) 5 percent will be clerical recruited locally at a $150 charge.

(c) 20 percent will be first duty stations at a $500 cost plus the $150 basic cost.

(d) 35 percent other at the $150 basic cost (p. 5AM–C–64, CSJF No. 321).

NOTE (5)

The Philadelphia proposal did not specify the derivation of their data: 1,500 total personnel; 0 MCA costs, and $4 million annual operations costs.

Consequently, it was necessary to evaluate the proposal using the best estimates available of the costs and personnel strength required at Frankford to duplicate the mission performance at Dover.

EFFECT OF DEFERRING CONSTRUCTION FUNDS

Mr. SIKES. If this construction funding is denied or deferred until fiscal 1978, would you proceed, in any case, within the near time frame, to close Frankford?

Mr. AUGUSTINE. We would plan to proceed, Mr. Chairman. We have the problem with our civilian end strength having been reduced for these coming months. We have to take people off the payroll, so we would plan to proceed according to plan.

Mr. SIKES. What would be the effect of the lack of facilities at Picatinny? You are proposing to close Frankford. What would be the effect of the lack of facilities at Picatinny?

Mr. AUGUSTINE. The people who were to move there would be forced to work along with some who are now at Picatinny in facilities that would be really less than adequate for them to do their job, so it would be a matter of qualitative impact on our ability to do our job. Not so much a matter of whether people would move or not.

General LEWIS. Sir, we have laid out for you an entire package of the funds that would be required that would have to be approved by your committee. That is a very important element of the package. Although it is perhaps not essential, it is highly desirable so when the people from Frankford move they move into facilities in which they can operate effectively. They have critical fields such as fire control and shell metal parts. For example, some of the presses we use to make prototype metal parts may be 40 feet high. They are huge.

If we don't provide these, they are, in fact, in much worse facilities. The whole intent of the consolidation is modified slightly.

I would hope that that doesn't happen.

Mr. AUGUSTINE. The request, Mr. Chairman, and members of the committee, is very important to us. I don't want to give the impression that it is not important. It really is.

COMMENTS OF HON. HELEN MEYNER

Mr. SIKES. We have with us Congresswoman Meyner from New Jersey who has demonstrated a great deal of interest in this matter. She has been active in support of the proposal. As a courtesy to our colleague, would you care to make any comments at this time?

Mr. MEYNER. Thank you, Mr. Chairman. I think, as all members of this committee know, and Secretary Augustine and General Lewis, my viewpoint on Picatinny is far from objective. It is my cub in my district so I have been something of a tigress about it. I would hope to see this committee vote for the necessary funds, the $7.4 million, to implement this transition that is taking place. I have great confidence in General Lewis that he will really pull Picatinny up by its bootstraps, eliminate needless jobs, and do away with people who are reading or sleeping on the job. I think it is important for the good of the Army that we get on with the transition of consolidation. It is urgent that we get the necessary funding.

Mr. SIKES. That is being objective.

Are there further questions or comments?

SAVINGS

Mr. NICHOLAS. Mr. Secretary, in your statement you mention a $37 million saving. The GAO allows a $37 million saving, but they point out $6.3 million of that, approximately, is due to workload reductions. It is unclear to me from the GAO report what the nature of these workload reductions were. I assume they are workload reductions which would take place, in any case, whether in the existing organization or the proposed organization.

I don't know to what extent, there would be RIFS which would have to take place if the consolidation were not to go into effect. Obviously there will be RIFS if it does go into effect too. But based on the people in the existing facilities there would have to be some RIFS. I don't know to what extent this $6.3 million worth of reductions reflects that and to what extent you are talking about additional reductions which would have to come about because of the anticipated savings due to the consolidation. Maybe you could clear that up for the record. Do you want to comment on it now?

Mr. AUGUSTINE. The approximate $37 million figure is the figure that results including the workload reductions. The Army claim has been somewhat higher.

General WRAY. He says the GAO allows $37.6 million a part of which is the workload reduction; whereas the Army claims $42 million, of which $5 million is workload reduction.

Mr. AUGUSTINE. That's correct.

So the net saving is still there. There would be workload reductions in either case and I think it is a legitimate point of view that you can't include those in the saving due to the reorganization, the change and the scope of work we have.

Mr. NICHOLAS. Could you spell that out for the record?

Mr. AUGUSTINE. I will be happy to.

[The information follows:]

Workload reductions are changes, specifically decreases, in recurring project funds which are no longer required because of project completions, cancellations or similar actions. The estimated amounts of workload reduction are based on program phasings and budgetary estimates; these reductions are not usually a direct consequence of a reorganization but are related to the mission loading anticipated in the foreseeable future.

PROBLEM AT WHAT LEVEL

Mr. NICHOLAS. Another point has been made, particularly by the people most deeply affected by this. From their standpoint, they feel it is not the people at the lab level causing the problem; it is the people up here at the Pentagon or the Army Materiel Command. They have shown us records of development programs which have been on go for several years where the decisions seem to take forever in the Pentagon staff and then they come down to the laboratory and they have 6 months to submit something. Again, it takes forever coming up the line.

Are you sure the problem lies down at the laboratories? You are putting the laboratories together in different ways, firing personnel, setting up new organizations and to some extent you are consolidating

the laboratory management. Are you sure that the problem isn't up at a higher level in the Army?

Mr. AUGUSTINE. I am quite sure the problem is partly at the higher levels. I think it is at each level. What we are talking about here today, of course, is only a part of the overall solution. The best answer I can offer, based mainly on having worked in business most of my life, to handle a man sleeping at his desk, is to have an organization so lean and so tight that the people are so busy there is no time for anybody to sleep and if he does he is out the door the next morning. To that end we will try to tighten down not only at the lab, but at DARCOM headquarters. We are reducing from 2,100 to 1,400. My own office, I have reduced by a third this last year. I think leanness and toughness is a virtue that all of us can stand a little bit more of.

Mr. SIKES. Are there further questions?

Mr. PATTEN. Mr. Secretary, in reference to that last little bit of philosophy you threw in about leanness and toughness, I noticed a survey on TV Sunday night about the amount of defense spending.

I can tell you without fear of contradiction when you talk about artillery and guns, the American people expect you to try to have the best. Among the professionals there seems to be an opinion we have a a little work ahead of us. Do you share that opinion?

Mr. AUGUSTINE. I share both those views. The people have a right to expect the best.

Mr. PATTEN. I am talking about people in the business who are knowledgeable. I am repeating what they have said to me personally.

That is the only concern I think most of us in the United States would have. Can you do a better job and can we get the cannon we need?

FACILITIES UTILIZATION

Mr. MCEWEN. I am looking at this book, "ARRADCOM Picatinny Site, Dover, N.J." Was this prepared by you?

General LEWIS. Yes.

Mr. MCEWEN. I appreciate the visual aids. Looking at the pictures of Frankford and Picatinny, I can't help but note—just take, for example, this page, "Fuze metal parts Frankford Arsenal Building 250."

This is a fine looking building from these pictures. Was consideration given to consolidation at Frankford?

General LEWIS. Yes, sir.

Mr. MCEWEN. And that was ruled out because of space limitations?

General LEWIS. It was ruled out primarily for operational considerations and, secondly, because of economics. That was considered, sir.

Mr. MCEWEN. Let me be frank. When I look at facilities such as those at Frankford Arsenal which are to be abandoned because of some structural realinement, some organizational realinement, in this day of communications and mobility of movement of management, I just find it difficult to understand why, when people are working in a facility like this, the command organization can't be so structured to accommodate the utilization of these facilities.

For instance, what happens to all of this equipment, machinery and tools that I see in these pictures?

General LEWIS. It is moved to the facility that you see on the right-hand side that is part of the reprograming action.

Mr. AUGUSTINE. There is no question but what we could keep Frankford open and continue to operate there. What we face is that we have an Army today that is half the size it was 5 years ago. We have 1,100 installations and each installation requires overhead to maintain it. We have to face some tough decisions on getting rid of installations that are marginal or else we spend all our money on those 1,100 installations and we don't have an Army that can fight.

Mr. MCEWEN. I can't help but look at the investment this represents, some of it obviously fairly recent. Look at what we are abandoning.

I planned to go see that new rotary forge you have up at Watervliet. Will that be moved to Picatinny?

General LEWIS. No, sir, that will stay at Watervliet.

Mr. MCEWEN. Seriously, I wonder when the day will come when we decide to abandon all of that, reorganize it and move it some place.

General LEWIS. A good question, sir. I hope you see we really tried to put into this no bias. We showed good facilities and bad facilities. We really tried to show those that Congressman Murtha saw on his visit. We wish there were many facilities like that, but there aren't. You are seeing it. It is not really representative of all the facilities.

Mr. SIKES. Thank you very much, Mr. Secretary. I believe this hearing has given us considerable additional useful information and we appreciate your presence and your additional testimony and that of supporting witnesses.

Mr. NICHOLAS. Could the members vote to release the recent staff investigative report on the Leroy facility?

Mr. PATTEN. I so move.

Mr. SIKES. Is there objection?

Without objection, it is unclassified.

TUESDAY, SEPTEMBER 21, 1976.

DEPARTMENT OF THE NAVY

TRIDENT LAUNCH COMPLEX 37

WITNESSES

REAR ADM. A. R. MARSCHALL, CEC, USN, COMMANDER, NAVAL FACILITIES ENGINEERING COMMAND (NAVFACENGCOM)
REAR ADM. A. L. KELLN, DIRECTOR, STRATEGIC SUBMARINE DIVISION AND TRIDENT PROGRAM COORDINATOR, OFFICE OF THE DEPUTY CHIEF OF NAVAL OPERATIONS (SUBMARINE WARFARE)
REAR ADM. J. C. METZEL, USN, TRIDENT SYSTEM PROJECT MANAGER, OFFICE OF THE CHIEF OF NAVAL MATERIAL
CAPT. G. CLARK, JR., USN, DEPUTY TECHNICAL DIRECTOR, STRATEGIC SYSTEMS PROJECT OFFICE, OFFICE OF THE CHIEF OF NAVAL MATERIAL
COMDR. J. R. IVES, CEC, USN, NAVFACENGCOM
MR. G. H. WOERNER, NAVFACENGCOM
COMDR. A. M. STEADLEY JR., CEC, USN, NAVCOMPT

TRIDENT REPROGRAMING

Mr. SIKES. We are meeting today to discuss a request by the Navy to reprogram $7 million to provide a launch complex for testing Trident missiles.

Insert in the record, Mr. Reporter, the September 2, 1976, letter from Assistant Secretary of Defense Fred P. Wacker. Insert also the justification data, including the 1391 forms.

[The justification and letter follow:]

1. DATE	2. FISCAL YEAR	MILITARY CONSTRUCTION PROJECT DATA	3. DEPARTMENT	4. INSTALLATION
28 JUL 1976	1976		NAVY	NAVAL ORDNANCE TEST UNIT

5. PROPOSED AUTHORIZATION	6. PRIOR AUTHORIZATION	7. CATEGORY CODE NUMBER	8. PROGRAM ELEMENT NUMBER	9. STATE/COUNTRY
$ 0	$ 7,000,000 P.L. 94-107 (FY 76)	390.40	-	CAPE CANAVERAL AIR FORCE STATION, FLORIDA

10. PROPOSED APPROPRIATION	11. BUDGET ACCOUNT NUMBER	12. PROJECT NUMBER	13. PROJECT TITLE
$ 0	-	P-750	LAUNCH COMPLEX 37 MODIFICATION

SECTION A - DESCRIPTION OF PROJECT

14. TYPE OF CONSTRUCTION		18. PHYSICAL CHARACTERISTICS OF PRIMARY FACILITY
a. PERMANENT	X	a. NO. OF BLDGS - b. NO. OF STORIES - c. LENGTH - d. WIDTH -
b. SEMI-PERMANENT		e. DESIGN CAPACITY - f. GROSS AREA -
c. TEMPORARY		g. COOLING - CAP. - COST ($ -)
15. TYPE OF WORK		19. DESCRIPTION OF WORK TO BE DONE
a. NEW FACILITY		Activate Launch Complex 37 including modification and rehabilitation of Blockhouse, Automatic Ground Control Station, Launch Pad "B", and Guidance Special Test Facility
b. ADDITION	X	Relocation and re-installation of access stand, gantry crane, erection fixture and launcher from Launch Complex 25
c. ALTERATION	X	Rehabilitate cableways and tunnels, and install instrument and power cable
d. CONVERSION		Provide azimuth alignment, theodolite pedestals, camera pads, electrical service, fencing, and gate house
e. OTHER (Specify)		Demolition of abandoned facilities
16. REPLACEMENT		
17. TYPE OF DESIGN		
a. STANDARD DESIGN		
b. SPECIAL DESIGN	X	
c. DRAWING NO.	-	

SECTION B - COST ESTIMATES

20. PRIMARY FACILITY	U/M	QUANTITY	UNIT COST	COST ($000)
LAUNCH COMPLEX 37 MODIFICATION	LS	-	$ -	$ 6,150
BLOCKHOUSE	LS	(-)	-	(480)
LAUNCH PAD "B"	LS	(-)	-	(930)
AUTOMATIC GROUND CONTROL STATION	LS	(-)	-	(380)
CABLEWAYS AND TUNNELS	LS	(-)	-	(550)
GANTRY CRANE RAILS & FOUNDATION	LS	-	-	(900)
RELOCATE EQUIPMENT	LS	-	-	(600)
AZIMUTH, THEODOLITE, CAMERA PADS	LS	-	-	(160)
GUIDANCE SPECIAL TEST FACILITY	LS	-	-	(80)
INSTRUMENT & POWER CABLE	LS	-	-	(1,500)
COMMUNICATIONS SYSTEMS	LS	-	-	(550)
21. SUPPORTING FACILITIES	XXXX	XXXXXXXXXXXXXXXXXX		$ 850
ELECTRICAL DISTRIBUTION LINE	LS	-	-	(240)
WATER DISTRIBUTION LINE	LS	-	-	(50)
ROADS & SITE IMPROVEMENT	LS	-	-	(550)
DEMOLITION	LS	-	-	(10)
22. TOTAL PROJECT COST				$ 7,000

SECTION C - BASIS OF REQUIREMENT

23. QUANTITATIVE DATA (U/M NOT APPLICABLE)		
a. TOTAL REQUIREMENT	-	
b. EXISTING SUBSTANDARD	(-)	
c. EXISTING ADEQUATE	-	
d. FUNDED, NOT IN INVENTORY	-	
e. ADEQUATE ASSETS (c + d)	-	
	AUTHORIZED	FUNDED
f. UNFUNDED PRIOR AUTHORIZATION	-	
g. INCLUDED IN FY - PROGRAM	-	-
h. DEFICIENCY (a - e - f - g)	-	-

24 RELATED PROJECTS -

25. REQUIREMENT FOR PROJECT

MISSION AND PROJECT: This Unit conducts flight tests and collects data on Fleet Ballistic Missiles at the Air Force Eastern Test Range. This project will relocate equipment from Launch Complex 25 (LC-25) and modify existing facilities at Launch Complex 37 (LC-37) to meet the requirements for launching the TRIDENT/C4 missiles.

REQUIREMENT: A facility with the capability to prepare and launch TRIDENT/C4 missiles from a flat pad at the Air Force Eastern Test Range but remote from surrounding civilian areas is required.

CURRENT SITUATION: LC-25 is currently available for launching of TRIDENT/C4 missiles. However, because of the proximity of civilian areas, launch conditions must be severely restricted in order to provide acceptable safety margins during a launch. Those restrictions could be substantially relieved if LC-37 could be used for launches since it is about 5 miles further from civilian areas. However, LC-37 was deactivated in 1970-1971 and is incapable of launching missiles. To activate LC-37 and meet the requirements for launching TRIDENT/C4 missiles, it will be necessary to relocate equipment from LC-25 and modify existing facilities at LC-37.

(Continued on DD 1391C)

1. DATE	2. FISCAL YEAR	MILITARY CONSTRUCTION PROJECT DATA (Continued)	3. DEPARTMENT	4. INSTALLATION
28 JUL 1976	1976		NAVY	NAVAL ORDNANCE TEST UNIT CAPE CANAVERAL AIR FORCE STATION, FLORIDA
5. PROJECT NUMBER		6. PROJECT TITLE		
P-750		LAUNCH COMPLEX 37 MODIFICATION		

BASIS OF REQUIREMENT (Continued)

IMPACT IF NOT PROVIDED: If the designated alterations are not performed, the entire TRIDENT/C4 development flight test program would be conducted under severe restrictions which would make it impossible to fully evaluate the performance capabilities and operational suitability of the missile during the development program.

ASSISTANT SECRETARY OF DEFENSE,
Washington, D.C., September 2, 1976.

Hon. ROBERT L. F. SIKES,
Chairman, Subcommittee on Military Construction, Committee on Appropriations, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: The Department of the Navy has requested approval to reprogram $7 million in fiscal year 1976 funds to permit modifying launch complex 37 (LC–37) at Cape Canaveral, Fla., for use in support of the missile flight test program of the Trident weapons system. These funds are to be reprogramed within the $134,967,000 appropriated in fiscal year 1976 for Trident facilities.

It was originally intended to use launch complex 25 (LC–25), which had been used for the Polaris and Poseidon flight test programs, for the Trident flight test program and the necessary modifications to LC–25 were made using funds appropriated for Trident facilities in fiscal year 1974. However, recent studies have produced data which indicate that detonation of a Trident C–4X missile on the pad or in the first 20 seconds of flight from LC–25 could be hazardous to a nearby community. In view of the safety considerations involved, the Department of Navy deems it essential to prepare the alternate launch site, which is substantially more remote from populated areas, at the earliest practicable time.

The Department of Navy proposes to undertake this construction utilizing the various locations, Trident facilities authority of Public Law 94–107, the fiscal year 1976 Military Construction Authorization Act. The House and Senate Committees on Armed Services were notified of this proposal on August 10, 1976.

Approval by your Committee of the proposed reprograming action is requested. Additional details are provided in the enclosures. Representatives of my office and the Department of the Navy are available to furnish any additional information you may desire.

Sincerely,

FRED P. WACKER,
Assistant Secretary of Defense.

Enclosures.

DEPARTMENT OF THE NAVY MILITARY CONSTRUCTION, NAVY PROJECT MODIFICATION

INSTALLATION

Various Locations.

PROJECT

Trident Facilities.

JUSTIFICATION

Launch complex 25 was used for the Polaris and Poseidon flight test programs and the supporting facilities in the proximity are, in general, suitable for use by the Trident missile program. However, it is one of the southern-most launch facilities at the cape and hence adjacent to the commercial port of Port Canaveral as well as the town of Cape Canaveral.

Recent hazard studies have assembled data which show that the overpressure threshold at which window glass cracking and breakage may occur in a part of the local community would be exceeded if a Trident C–4X missile detonates on the pad at LC–25 or in the first 20 seconds of normal flight when launched from LC–25, unless favorable atmospheric conditions exist. Detonation of a Trident I (C–4) second stage propulsion motor, when static tested on May 4, 1974, and subsequent extensive investigation have disclosed that some properly manufactured solid propellants can be sufficiently damaged by the rupture of a motor case such that subsequent burning of that propellant will lead to detonation of the entire mass of propellant. Rupture of the motor case in the process of terminating thrust for the purpose of aborting the flight of an errant missile could lead to the same result.

From the town of Cape Canaveral, the distance to launch complex 25 is 2.4 miles and to launch complex 37 it is 9.1 miles. Therefore, a move to launch complex 37 would increase the separation distance to Cape Canaveral by 6.7 miles. Launch complex 37 is 11.1 and 14.9 miles away from other nearby towns of Merritt Island and Titusville, respectively. Launch complex 37 can be modified to be suitable to accommodate Trident I (C–4) launch equipment for an estimated $7 million and be ready for C–4X flight test in about 13 months. Launch complex 37 is sufficiently remote that C–4X flight tests should be possible with substan-

tially less dependence on atmospheric conditions and without trajectory restrictions imposed.

Safety regulations require that a decision be made prior to each planned launch, that conditions wil permit a safe flight. The Navy may be able to proceed with initial launches from LC–25 under carefully-controlled conditions. However, it is expected that the imposition of these conditions will so increase the cost of the C–4 missile development that it is prudent to modify launch complex 37 as soon as possible and thereby minimize the cost increase as much as possible.

SOURCE OF FUNDS

Savings from the fiscal year 1976 various locations, Trident facilities military construction project is the proposed source of funding for the launch complex 37 construction. Savings in the amount of $3.5 million are currently available for this purpose. Another $3.5 million of utilities will be deferred, if additional savings are not generated during the course of executing construction contracts on the remaining 75 percent of the fiscal year 1976 project.

In addition to the construction cost of approximately $7 million, $285,000 will be required for planning and design. This funding will be obtained from available planning and design funds.

Mr. SIKES. Our chief witness is Rear Adm. J. C. Metzel, Jr., Trident system project manager. Also with us are Rear Adm. A. R. Marschall, commander, Naval Facilities Engineering Command, and Rear Adm. Kelln, director, Strategic Submarine Division. There are also backup witnesses.

We will want to know the reasons for this new request.

Admiral Metzel, do you have a statement?

Admiral METZEL. Yes, sir.

STATEMENT OF ADMIRAL METZEL

Mr. Chairman and members of the committee: I am Rear Adm. J. C. Metzel, Jr., the Trident system project manager in the Naval Material Command. I am pleased to address this committee on the need to modify launch complex 37 at Cape Canaveral in order to carry out the development flight test program for the Trident I (C–4) missile.

The letter notifying the committee of the proposed construction discussed the problem with flight testing from launch complex 25 and of the $7 million estimated cost to provide needed flight test capability from launch complex 37. The purpose of this statement is to amplify that information and cover the questions posed by committee staff in preliminary discussions.

The Trident system consists of a new long-range submarine launched missile, a new submarine, and the integrated logistic support for the missile and the submarine. The program includes development and acquisition of a new strategic weapon system composed of the new missile with supporting launcher, fire control, navigation, and logistic support. Current Polaris and Poseidon missiles have range characteristics such that our ballistic missile submarines must patrol relatively close to Europe and Asia in order to be within range of their targets. The Soviet Navy is working hard to improve its antisubmarine warfare capability. In order to preserve the current invulnerability of our ballistic missile submarines in spite of anticipated improvements in Soviet ASW capability, the Trident I (C–4) missile will have about double the range of the Poseidon missile and is sized to fit in the Poseidon submarine missile tubes. Submarines with Trident missiles will be within range of their targets from a much larger ocean area. The Trident submarine will provide a cost effective replacement for the aging Polaris and Poseidon submarines and, while carrying the

Trident I (C–4) missile, will have missile tubes with growth potential for accommodating a much larger Trident II missile in the future.

An important point is that the Trident program calls for a missile approximately equal in size to the Poseidon missile but with about double the range. That requires a significantly more energetic propellant than has previously been developed.

The Trident program includes significant military construction. The largest Milcon effort is the new submarine base at Bangor, Wash., which will provide for logistic support of the missile and submarine. A smaller effort at Point Mugu, Calif., will provide tracking facilities to support strategic weapon system tests in the Pacific once the Trident system is operational. At Cape Canaveral in Florida, we are building and modifying facilities to support development testing of the strategic weapon system and to support Trident missile demonstration and shakedown operations (DASO) tests for new construction, backfit, and overhaul submarines.

The facilities at Cape Canaveral which are already complete include a new turning basin, a missile loading wharf, modification of existing Polaris/Poseidon facilities for assembly and checkout of Trident I (C–4) development missiles, and modification of the Polaris/Poseidon launch complex 25 to accommodate Trident I (C–4) missile launch tests from a shore pad. Some additional construction is authorized to support DASO operations which start in 1979.

The missile development program has reached the point where ground tests are essentially complete. The next major step is to commence flight test. Three flight test programs are plannned. The first is a series of 20 to 25 development flight tests from a launch pad at Cape Canaveral. The second flight test program will consist of 5 to 10 shots from a Poseidon submarine which has been converted to launch Trident I (C–4) missiles. These performance evaluation missile tests will demonstrate an entire Trident strategic weapon system using the production version of the missile. Finally, the third series of flight tests will be demonstration and shakedown operation tests of the Trident I (C–4) missile being launched from the Trident submarine.

Trident I (C–4) missile propellants are highly energetic and under certain abnormal conditions can explode high order instead of burning at a controlled rate as desired. High order explosion of a Trident I (C–4) missile propellant, if it were to occur, could be equivalent to 80,000 pounds of TNT. Early in the development program, motor failures resulted in high order explosions.

Mr. SIKES. How many?

Admiral METZEL. Two. One in 1974 and one in 1975.

Mr. SIKES. How many tests?

Admiral METZEL. Captain Clark, can you help me there?

I am sure it must be 20 or 30 tests. We can supply you with a precise number, Mr. Chairman.

[The information follows:]

Captain CLARK. The following number of motor static tests have been conducted in the Trident I (C–4) development program:

Tests:	
1st stage	16
2d stage	17
3d stage	14
30-in. diameter test motor	31
Total	78

Admiral METZEL. While we believe that these explosions would not recur because of changes to the propellants and motors, the time and expense would be prohibitive to run enough tests to verify with a high degree of statistical confidence that an explosion would not occur. Launch complex 25 and the tactical missile have been ready for development flight testing since late June of this year. On the test range a flight termination system is required to abort safely the flight of an errant missile. In May, a test of the flight termination system on a missile first stage propulsion motor resulted in a high order detonation. Redesign of the flight termination system was required. This has been done, and the redesigned system is now being evaluated. Although it is believed that activation of the flight termination system will no longer cause a high order detonation of the missile motors, it would entail a prohibitively large program to conduct enough tests to establish that fact with statistical confidence. Furthermore, it is likely that any motor once in flight will detonate if it strikes the surface before all its propellant is consumed. Therefore, for the purposes of range safety, we are assuming that motor failure, activation of the flight termination system, or an unexpended motor falling back to the surface will result in a high order explosion; and that is in a conservative approach. Criteria for permitting launch from a given launch pad, permissible trajectories, and allowable deviation from expected performance are based in part on these assumptions.

In May 1976 a study was completed of the potential damage to the nearby civilian community in the event of a missile explosion on launch complex 25 or shortly after lift-off. This study concludes that high order explosion of the propellant of a Trident I (C–4) missile on or near launch complex 25 would result in breakage of glass in the civilian community of Cape Canaveral, part of which is within the 14,500-foot radius where 0.1 pounds per square inch or greater overpressure would be realized under standard atmospheric conditions. Located within the 0.1-pound-per-square-inch arc are about 74 residences, 52 mobile homes, 96 campers—there is a State park right there—the Florida Technical University campus, a post office, 2 park buildings, 3 commercial office buildings, 24 industrial buildings, and a petroleum product tank farm. Both the Air Force Eastern Test Range and the Navy will insure that launch criteria will protect the civilian community.

Occasionally, atmospheric conditions will be such that the civilian community will not be subjected to damaging overpressure. The probability of that happening will be so low as to reduce the efficiency of the test program and to increase the cost of each shot. Furthermore, since each development flight depends in part on the results of previous flights, delays can accumulate and prolong the missile development program which will result in a commensurate increase in overall development costs.

Inasmuch as the uncertainty of carrying out an effective flight test program at launch complex 25 stems from its proximity—10,500 feet—to the civilian community at Cape Canaveral, launch complex 37 which is 42,000 feet from the city is a considerably more advantageous site. Launch complex 37 is a former Saturn facility, and much of its cabling and equipment was removed when the Saturn program was completed. We estimate that modifications to achieve a basic Trident I (C–4) missile launch capability will cost $7 million and will require

about 13 months for the construction and checkout. Because of its relative remoteness from civilian communities and consequent freedom from tight weather restrictions, launch complex 37 will offer significantly greater launch opportunities. The criteria for launch from complex 37 will be less stringent in most particulars than those at launch complex 25.

Our plan is to begin the Trident I (C–4) missile flight test program at launch complex 25, and we hope to complete 9 of the 20 to 25 shot program from launch complex 25 while launch complex 37 is under construction. These flights will be under tightly controlled weather constraints and the probability of maintaining adherence to any efficient test schedule is low. Therefore, it is far more cost effective to prepare launch complex 37 for significantly less constrained firing while seeking every opportunity to use launch complex 25 in the interim.

ADDITIONAL COSTS

Mr. SIKES. All right, Admiral Metzel.

What other costs are still to be encountered in the construction program for testing missiles?

Admiral METZEL. We have three projects that are involved with preparing facilities for the DASO launchers, the demonstration and shakedown operation launches, where we put the missile in the submarine and take it to sea. There is one of those in the 1976 program, $1.6 million for DASO data facility. In the 1977 program there is about $1.8 million for a missile storage facility, three magazines that will be constructed adjacent to the loading wharf. There is approximately a quarter of a million dollar project for a test instrument equipment installation building.

Mr. SIKES. What is the status of the follow-on program?

Admiral METZEL. The 1976 program, that contract is due to be awarded in November of this year.

Mr. SIKES. For what amount was it funded?

Admiral METZEL. Approximately $1.6 million. That really has nothing to do with this pad launch program.

Mr. ALLEN. Admiral, I think the chairman is getting at the follow-on program with regard to the D–5.

D–5 PROGRAM

Admiral METZEL. With regard to the D–5 program, or Trident II, the Navy for the last 2 years has requested money to go into a concept definition. In both cases the Senate Armed Services Committee has recommended that it be dropped from the program. In both cases, Congress denied the funds. Hopefully, that program might start in fiscal year 1978. The Navy will request it again, but right now that is no more than a talking point.

Mr. ALLEN. Is it the Navy's plan to test the D–5 at Kennedy Space Center?

Admiral METZEL. That remains to be seen, when we define what that missile is. Until the missile is described, it is premature to say that.

Mr. ALLEN. For planning purposes certainly you know approximately what kind of explosive capability you are going to have, from the propellant point of view, in order to get the range. The size of the missile is fairly well defined because of the design of the submarine.

Would you be able to test the D–5 as it is now envisioned in the planning stage, at launch complex 37, from an explosive safety point of view?

Admiral METZEL. I will ask Captain Clark, who is the Deputy Technical Director at the Strategic Systems Project Office, to answer that question, if I may.

Captain CLARK. Again, I don't think we can really answer the question until we know more precisely what the figure is.

Admiral METZEL. As I understand Mr. Allen's question though, if we are talking of a missile of the approximate size to fill the Trident submarine tube.

Captain CLARK. It would extend the one-tenth psi and three-tenths psi over pressure radii by about 24 percent.

Mr. ALLEN. Then if launch complex 37 is modified, will you have enough room there, from an explosive's safety standpoint, to test the missile as it is now envisioned?

Admiral METZEL. I think the answer to that is yes.

Mr. ALLEN. Has that changed since we spoke earlier?

In response to a staff question, the statement was that it probably would not, and that you were considering a new complex at the west coast perhaps.

Admiral METZEL. That is a possibility. I want to make sure you understand that complex 25 was a working complex in the Poseidon program. To make it ready for Trident, we had to make significant changes to the wiring and the instrumentation and so forth at that pad. If we went to 37, and it is subsequently determined that it is a safe place to launch a D–5, which is a distinct possibility, we would still have to go back in and make those changes electrically and change the wiring for the instrumentation, the fire control equipment, and so forth.

Mr. ALLEN. I think the committee understands that, Admiral Metzel. I think the thrust of the question is that the committee has approved funds to modify a launch complex which now, for reasons which could not be envisioned at the time it was modified, make it unacceptable from the safety point of view to continue using it. We are now being asked to approve an additional $7 million to modify a second pad. The question I believe goes to one which has been discussed informally at the staff level, and that is, will the committee be asked to approve funds for still a third complex to test the next missile, or can part of the money which will be used out of the $7 million be recouped in a sense? Can some of the facilities which you intend to construct be salvaged and used in the follow-on program, or will we simply be abandoning them and moving to Vandenberg Air Force Base or to another launch site on the cape or elsewhere?

Admiral METZEL. As I understand it now, we probably could modify launch complex 37 to conduct D–5 testing. The restraints that would be put on us—in that it would be a bigger missile with more explosive—would be somewhat more restrictive than launching C–4 missiles from launch complex 37.

I cannot say absolutely that the Navy would not decide to have to go somewhere else ultimately.

Mr. SIKES. Or to build a new complex there?

Admiral METZEL. Well, I don't think that we would get involved in building a new complex, because I don't think you can get any farther away from the civilian community on the cape.

Mr. TALCOTT. Mr. Chairman?

Mr. SIKES. Yes.

STAFF DISCUSSIONS

Mr. TALCOTT. I am not familiar with the staff interrogatories that you might have had at some time. I wonder if they would be made part of the record. I don't like to have the record incomplete. If somebody on their staff talked to somebody on our staff, that isn't a good record. I think we should have everything on the record.

Mr. SIKES. That is the purpose of this hearing: to insure that we do have on the record all of the pertinent facts. There have been some preliminary discussions of course between our staff and the Navy's staff, in order to determine what is involved here and what would be required, but we do expect to have on the record all of the information that contributes to an understanding of the problem, and the solution.

You were going to say something, Admiral?

FOLLOW-ON TESTING

Admiral KELLN. Yes, sir.

Mr. Chairman, for clarification, one of the reasons we are somewhat hesitant to state absolutely that the follow-on Trident II missile could be satisfactorily tested from a modified launch complex 37 is because the additional weight, almost a twofold increase in weight, and the various blast affected areas, as far as the launch pad itself, have not been thoroughly analyzed. Therefore, we are reluctant to state categorically that launch complex 37 could in fact, without a change to the pad strength or some of the appurtenances, satisfactorily accommodate that missile.

As far as the question of explosive distance, that answer is in the affirmative. I know of no reason from a safety point of view, that is from an explosive quantity distance point of view, that if launch complex 37 were modified properly to accommodate this larger missile, why it could not be so used.

SOURCE OF FUNDING

Mr. SIKES. You say you would possibly use $3,500,000 to be derived by deferring certain construction at the Trident site. That would seem to be an unusual way to get reprograming funds, deferring projects.

Is this a sound course?

Admiral MARSCHALL. Mr. Chairman, since we provided the early figure of $3.5 million out of the 1976 program, we have received more information on the basis of bid openings. Out of a total authorization of $186,967,000, we have a current working estimate of $180,180,000,

which gives us a savings at this point of $6.787 million, which approximates the $7 million we are looking for.

Mr. SIKES. How did you accomplish the savings?

Admiral MARSCHALL. It wasn't a question of accomplishing savings as much as getting better information as we went along. In the early figure, $3.5 million, we had some imponderables still remaining. Subsequent to that time we have had bid openings which indicate to us that there will be this savings, and we can provide the breakout.

Mr. SIKES. Does this involve any postponement of facilities at the Trident base?

Admiral MARSCHALL. This would not entail any postponement of facilities as a result.

Mr. TALCOTT. What is the authorization that you are talking about?

Admiral MARSCHALL. Sir, this is the 1976 appropriation for Trident.

Mr. ALLEN. It is the appropriation?

Admiral MARSCHALL. Authorization, excuse me.

Mr. ALLEN. What was the appropriation?

Admiral MARSCHALL. The appropriation was somewhat less. It was $141,967,000.

Mr. TALCOTT. Then you don't have that cushion.

Commander IVES. You will recall, sir, that this is the year wherein it was recommended that some of the fiscal year 1977 work be funded in fiscal year 1977 against unused authorization in fiscal year 1976. We have now mapped out a plan of those items from the fiscal year 1977 program which will be accommodated within the 1976 unused authorization. If you take into account the total work to be accomplished under the 1976 authorization, and the current working estimates for those projects, there is a saving of $6,787,000, as the admiral indicated.

Mr. TALCOTT. You are going to have to talk with somebody other than me, because I don't follow the authorization bill. I only understand the appropriation bill, and so far as I am concerned you can only spend money that has been appropriated.

Admiral MARSCHALL. But it has been appropriated now, Mr. Talcott. We have had the fiscal year 1977 appropriation bill, and that rectified the $45 million difference in the fiscal year 1976 program, and this was done with intent, because it was felt in the fiscal year 1976 markup that we could not in fact use the $45 million, and in fact the committee was correct, but it was applied in the fiscal year 1977 program, and those monies are available.

Mr. PATTEN. A small thing. We are talking about $6.87; aren't we?

Admiral MARSCHALL. Yes; $6.87, $6.8 roughly.

Mr. SIKES. Spell it out for the record so we will have complete understanding.

[The information follows:]

TRIDENT PROJECTS TO BE ACCOMPLISHED UNDER FISCAL YEAR 1976 AUTHORIZATION CURRENT WORKING ESTIMATES

[In thousands of dollars]

	CWE as provided at fiscal year 1977 HAC hearings	*Current CWE*
I. Projects funded in fiscal year 1976:		
Bangor:		
Drydock	28,448	32,086
Delta support facility	3,987	4,896
POL	1,000	670
Bachelor enlisted quarters	4,043	3,724
Dispensary dental clinic	3,398	3,007
Nondestructive test and inspection building	2,114	1,673
Transfer facility	156	213
Explosive component checkout building	434	363
Reentry body building No. 2	3,038	2,297
Missile assembly building No. 2	2,382	2,670
Flammable storage building	149	159
Maintenance support building	5,132	4,432
Equipment maintenance building	2,618	2,301
Missile motor magazines	2,120	2,397
Small ordnance magazines	278	263
Alarm control center (1st increment)	430	430
Utilities and site improvements (3d increment)	37,534	35,610
Nuclear industrial facility	3,860	3,304
Refit industrial facility	16,198	16,198
Indian Island: Ammunition pier	18,618	13,500
Cape Canaveral: DASO data processing support facility	1,600	1,600
Community impact aid: Impact aid	7,000	7,000
II. Projects funded in fiscal year 1977:		
Refit pier No. 2	17,400	15,160
Dockside handling building	1,367	1,636
Vertical missile packaging building No. 3	7,408	6,866
Radiographic inspection building	6,132	5,632
Container storage area	1,969	1,513
Magnetic silencing facility	9,468	9,377
Cold storage facility	389	390
Servmart	686	632
Fire station (modification)	160	160
Utilities and site improvements (portion of 4th increment)	21	21
III. Total current working estimate	189,537	180,180
IV. Current estimate of savings available for launch complex 37:		
Fiscal year 1976 authorization		186,967
Fiscal year 1976 appropriation	141,967	-------
Fiscal year 1977 appropriation to be applied to unused fiscal year 1976 authorization	45,000	-------
Total available appropriation		186,967
Less total current working estimate (see III above)		180,180
Savings available for launch complex 37		6,787

PROJECT DEFERRAL

Mr. SIKES. If the utilities projects were important enough to request funding, provide precise details as to what has now made it possible for you to delay these projects for 2 or 3 years. What will be the impact of these delays on the facilities at Bangor the utilities were to support?

Admiral MARSCHALL. As I have previously stated, we are now confident that projects will not have to be deferred since savings of $6.8 million have been identified in the 1976 program. Prior to identifving all of these savings, we were optimistic and confident that such savings would become available.

UTILITIES AND SITE IMPROVEMENTS FUNDS

Mr. SIKES. Provide a listing of exactly what has been done with all funds, regardless of year, provided to the Trident support site project under the general heading of "utilities and site improvements." Include details on latest cost estimates for each project under this heading, together with the construction status of each.

[The information follows:]

Contract name and date of award:	*CWE (in thousands of dollars)*	*Construction status (percent)*
FISCAL YEAR 1974 UTILITIES AND SITE IMPROVEMENTS		
115 kV electrical distribution and substations, June 27, 1975	8,538	85
Utilities and Roads in major support area (increment 1), Mar. 3, 1975	4,333	97
Utilities and roads for the explosive handling wharf, Feb. 10, 1975	729	100
Security fencing and gates, Feb. 5, 1976	203	100
Site preparation for SWFPAC support area, June 6, 1975	27	95
SWFPAC security site work, Feb. 13, 1975	1,246	99
Heating plant for major support area, Oct. 2, 1975	9,087	30
Sewer to Brownsville, under design by county	4,961	0
Purchase of BPA substation	144	
Operational support costs	132	
Total	29,400	
FISCAL YEAR 1975 UTILITIES AND SITE IMPROVEMENTS		
Main gate and access road, July 21, 1975	1,222	95
Sections of utilities, June 8, 1976	1,754	20
12.5 kV electrical distribution, Sept. 8, 1975	177	95
Central monitoring system, under design	5,092	0
Base transportation and roads (increment 1), Oct. 22, 1975	7,737	50
Major support area utilities (increment 2), Apr. 28, 1976	2,052	30
Utilities and roads for SWFPAC support area, June 6, 1975	2,157	94
Site preparation for refit industrial area, June 24, 1975	919	100
Refit/ship shop utilities and roads, Nov. 4, 1976	3,130	0
Utilities for SWFPAC area, April 26, 1976	2,614	15
Solid waste haul road, under study	572	0
Base water system (phase I), Feb. 23, 1976	190	90
Utilities for the waterfront, under design	2,482	0
Utilities and roads for refit Pier No. 1, Dec. 17, 1975	1,782	50
Utilities and roads for northwest main limited area, Jan. 22, 1976	357	75
Base water system (phase II), July 29, 1976	344	5
Base water system (phase III), Sept. 13, 1976	2,126	0
Operational support costs	891	
Guadalcanal west utilities and roads, under design	1,139	0
Landscaping and parking, awarder/under design	588	(1)
Total	37,325	
FISCAL YEAR 1976 UTILITIES AND SITE IMPROVEMENTS		
Main heating plant expansion, under design	3,120	0
Missile haul roads and utilities to magnetic silencing facility, Jan. 1977	2,275	0
Base water system (phase IV), under design	3,205	0
12.5 kV electrical, under design	4,175	0
Storm water facilities, under design	670	0
Internal roads and bridge, under design	1,150	0
Bus facilities, under design	535	0
Core site improvements and parking, under design	1,119	(1)
Emergency generator plant for the waterfront, February 1977	5,838	0
Interim sewage waste treatment facility, December 1976	1,463	0
Brownsville sewer (increment 2), under design by county	1,268	0
Waterfront site improvements, November 1976	6,848	0
Utilities and roads southwest area, November 1976	1,215	0
Site improvements for fiscal year 1977 projects, under design	964	(1)
Utilities and roads for magazines, December 1976	477	0
Parking lot for fiscal year 1976 bachelor enlisted quarters, July 1976	25	5
Railroad turn-around-transfer facility, under design	148	0
SWFPAC missile haul roads, December 1976	415	0
Operational support costs	700	
Total	35,610	

[1] Varies.

LAUNCH COMPLEX 25 STUDIES

Mr. SIKES. How much money was spent to modify launch complex 25?

Admiral MARSCHALL. Approximately $1.2 million.

Mr. SIKES. When were those funds requested?

Admiral MARSCHALL. Fiscal year 1974 funds, Mr. Chairman.

Mr. SIKES. Did the Navy not investigate the safety arc question before spending these funds?

Admiral MARSCHALL. Yes. We investigated that, Mr. Chairman, and as has been pointed out by Admiral Metzel, some unforeseen developments occurred which caused us to have to rethink the program.

Mr. SIKES. When did the Navy identify this new problem of potential danger?

Admiral METZEL. This was a study that was reported out in late May of this year, sir.

Mr. SIKES. When did you initiate the request for funds for a new launch site?

Admiral MARSCHALL. September 2 is the date of Mr. Wacker's letter.

Mr. SIKES. I understood this problem was first identified about 2 years ago. Is that incorrect?

Admiral METZEL. No, sir.

Mr. SIKES. When you had the first explosion?

Admiral METZEL. That is correct, sir. We did have the first explosion, but it was not recognized that the hazard we now perceive existed for the civilan community. That wasn't understood until late May of this year.

PROPELLANT INVESTIGATED

Mr. SIKES. Have you investigated the question of a new or different propellant for the second stage?

Admiral METZEL. The second stage motor has gone through a series of propellants. We have now firmed up on what we consider the final propellant. This was done subsequent to the explosions that we had in 1974 and 1975.

Admiral KELLN. We have high confidence that the second stage propellant has, in fact, been so modified so as not to have a high probability of——

Mr. SIKES. You feel that it is the best propellant?

Admiral KELLN. Yes, sir.

Mr. PATTEN. How much do you have to lift? What is your total weight?

Admiral METZEL. At liftoff this missile is about [deleted] pounds. Not all of that is propellant; 64,000 of the [deleted] is propellant.

Mr. PATTEN. The Saturn capsule was only around 100,000; wasn't it?

Admiral KELLN. I am not sure.

Mr. PATTEN. It was in that area.

Mr. TALCOTT. Mr. Chairman?

Mr. SIKES. Yes.

FACTORS CONSIDERED

Mr. TALCOTT. There are two factors it seems to me, the amount of the explosives and the people, that have to be taken into consideration.

Admiral METZEL. Yes.

Mr. TALCOTT. You indicated, at least in my understanding, that you had the program pretty well planned until you set off one of the explosives and then found something new in the explosive that required a larger arc, I guess.

Admiral METZEL. No, sir. I talked about three different conditions in which an explosion might occur. Two of those we think are very unlikely, but we don't have the statistical basis to support that belief with high confidence, though we are convinced it is true. One of the two conditions is failure of a missile motor in some way—say the case breaks while it is operating—there is a possibility of an explosion. We believe that is unlikely; but, because we can't prove that with statistical confidence, we have to assume for range safety purposes that it can occur.

The second one is the activation of a flight termination system; we did have one instance where that caused an explosion. We believe that explosion was really caused by the test stand, and we are satisfied that we have a good system now. But, again, to run enough tests to get statistical confidence would be far too costly in both time and money. Again we are going to assume that, if we activate the flight termination system, we will get a high order explosion of whatever propellant is left.

The third one is that, if a missile once up in the air flying falls back and hits the surface, it is going to blow up. That is a pretty good probability.

Mr. TALCOTT. That could happen at long range; couldn't it?

Admiral METZEL. After it has gone a while it has consumed all its propellant, so after the missile has moved down the range a way the propellant is gone and that particular hazard has been diminished.

Mr. TALCOTT. The people didn't move any closer to the launch site; did they?

Admiral METZEL. No, sir, they have not, but the study of the consequence of the overpressures that would be attained if we add the equivalent of 80,000 pounds of TNT blowing up on that launch pad or in the first 15 or 20 seconds of flight, and with the right atmospheric conditions, shows we could cause damage in that civilian community. That study is the one that reported out the end of May.

COMPLEX 37 CONSIDERED BEST

Mr. SIKES. Is this the best site under all conditions?

Admiral METZEL. Launch complex 37?

Mr. SIKES. Yes.

Admiral METZEL. I believe it is on the cape, yes, sir.

Mr. MCKAY. Will the Chairman yield?

Mr. SIKES. Yes.

Mr. MCKAY. Do you have another site that would be better, someplace else that is not on the cape?

Admiral METZEL. No, sir, we don't.

Mr. MCKAY. Then it is the best site, whether on the cape or otherwise; is that true?

Admiral METZEL. Yes, sir. I would like to qualify that. If we could go to some very remote place, it would probably be somewhat safer than launch complex 37, but we would have to move all of the missile

preparation facilities, all of the tracking facilities, everything else, to make such a place usable.

Mr. SIKES. At what general overall cost?

Admiral METZEL. The investment down there right now is over $200 million, as I understand it.

CONSTRUCTION SCHEDULE

Mr. SIKES. What will be the construction time on this project?

Admiral METZEL. Over 2 years.

Mr. SIKES. What are the critical dates insofar as the Navy is concerned?

Admiral MARSCHALL. You are talking about reconstructing the whole thing?

Admiral METZEL. Taking the whole——

Mr. SIKES. I am talking about the project for which you are asking $7 million.

Admiral METZEL. Would you repeat your question, please, Mr. Chairman?

Mr. SIKES. Yes.

What will be the construction time?

Admiral METZEL. At launch complex 37?

Mr. SIKES. That is correct.

Admiral MARSCHALL. Mr. Chairman, we would hope to negotiate a contract starting about mid-October, and have construction begin mid-November, along about the 10th or 12th of November. We would anticipate completion, which would include the removal of the equipment from launch complex 25, and installation of that equipment in launch complex 37, by early October of next year.

Mr. SIKES. About a year.

Admiral MARSCHALL. Roughly a year, 13 months I think maximum.

Mr. SIKES. When do you have your first test launch scheduled from launch complex 37?

Admiral METZEL. It would be as soon as launch complex 37 is prepared. It is a function of when we make the move.

Mr. SIKES. Are you saying you need it as soon as you can have the facility ready?

Admiral METZEL. We intend to move as soon as launch complex 37 can be made ready. In the meantime, we will try to fire from launch complex 25 and get as many shots as we can. As soon as launch complex 37 construction has proceeded to the point where we can move the fire control equipment and the instrumentation, we will then stop the operation at 25. There will be about a 3-month period to move that equipment. Then we have to check it out; and, as soon as it is verified, we will be ready to resume launching. That will be a 3-month or possibly slightly longer standdown. As soon as launch complex 37 is ready, I am sure that the next missile will be ready and waiting for the pad.

TEST SCHEDULE

Mr. SIKES. For the record give us a schedule of the launches you propose from launch complex 37.

[The information follows:]

Captain CLARK. We propose to launch ——— a total of 11 launches from launch complex 37.

FOLLOW-ON TESTING STUDIES

Mr. SIKES. What studies were made to locate a complex which likely would be used for follow-on testing of the D–5 missile as envisioned for current purposes?

Provide it for the record.

[The information follows:]

Captain CLARK. Study for a location of a complex to be used for testing of the D–5 missile at AFETR has been done only in connection with the more specific intent of relocating launch facilities from LC–25 to LC–37 to accommodate Trident I (C–4). This study was performed in October 1974. The extent to which the study gave consideration to D–5 was limited to—

Blockhouse reinforcement requirements;
Gantry crane capability;
Access stand size; and
Ability to accommodate miscellaneous support equipment.

More specific studies are not appropriate until the D–5 missile characteristics and its development plan are more firmly decided.

Mr. SIKES. Could launch complex 37 be used to test the new M–X missile?

Admiral METZEL. We would have to try to get you an answer to that, sir.

Admiral KELLN. We have to talk to the Air Force about the M–X.

Admiral METZEL. I don't think you could use it without significant changes in the instrumentation equipment, but I have no idea about Air Force plans.

Mr. SIKES. Mr. Allen?

Mr. ALLEN. The thrust of these questions, Admiral, is not necessarily equipment and modifications required on the launch pad to accommodate the missile physically. We are speaking here of the explosive safety distances.

Admiral METZEL. I will have to find out and give you an answer.

[The information follows:]

Rear Admiral METZEL. Informal discussions with AF Eastern Test Range representatives indicate that explosive safety distances at LC–37 are adequate to support the test of candidate M–X missiles. However, all Air Force ICBM testing was consolidated at the Western Test Range following the completion of Minuteman III R. & D. testing in February 1970. Air Force planning assumes continued testing of current and future ICBM's, including M–X, on the Western Test Range.

After completion of Trident I flat pad testing, launch complex 37 will probably be reduced to caretaker status and be retained for future FBM testing.

EXPLOSIVE SAFETY ARC

Mr. SIKES. Provide a map or photograph showing the explosive safety arc for launch complexes 25 and 37 for both the C–4 and D–5 missiles.

[The information follows:]

Captain CLARK. The term explosive safety distance is defined in AFETR Manual 127–100 as follows:

Explosives safety distance (quantity-distance).—An expression of the quantity versus distance principle involved, or the toxic hazard distance

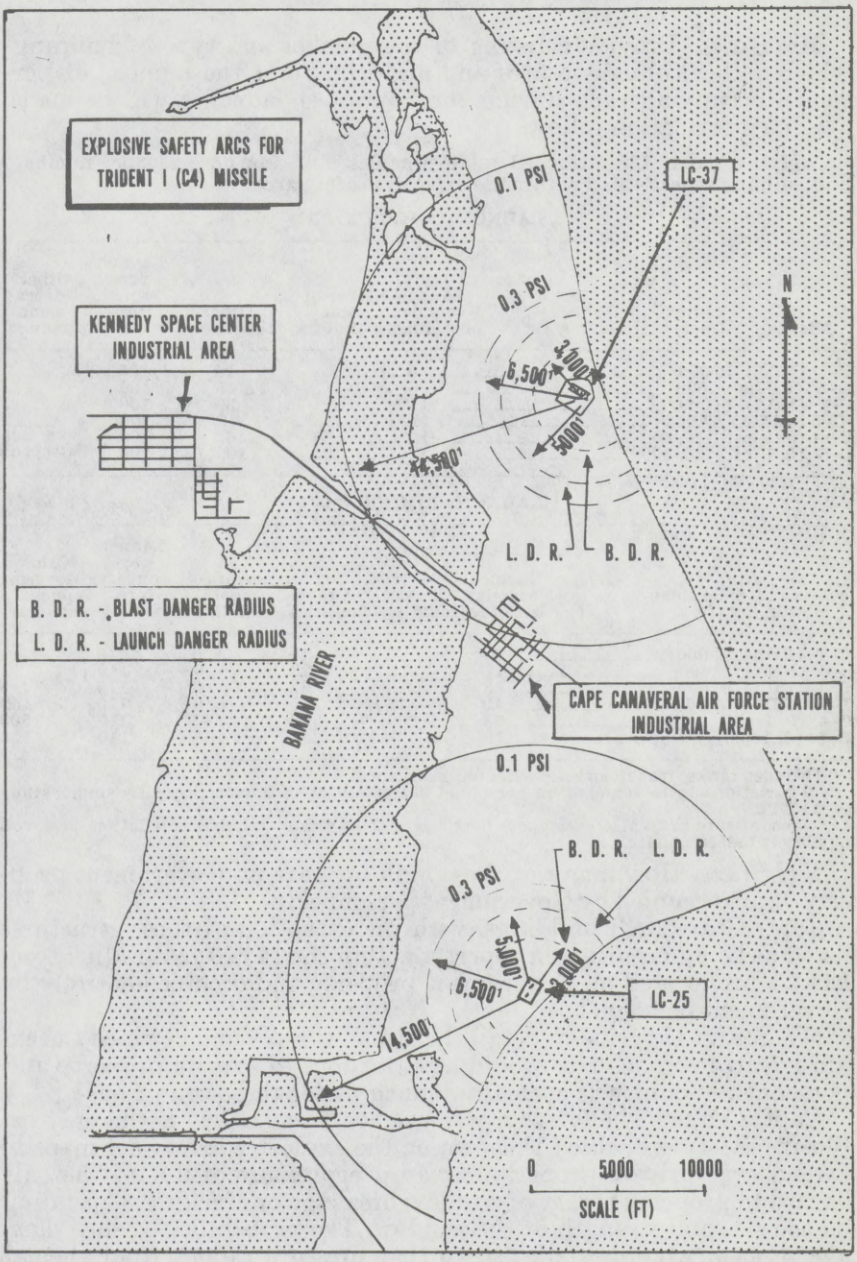
used in determining acceptable separations between given explosives sources and given exposures to the hazard.

The graphic shows the radii of the two outermost arcs used by AFETR under the meaning of the term "explosive safety distance". These terms are defined in AFETR manual 127–1 as follows:

Blast danger area.—This is a land area determined by AFETR and based on calculated explosive velocities, TNT equivalents, toxic propellant dispersion, and fragment dispersion of a missile while the missile is on the launch pad. The area is drawn as a circle about the launch pad.

Launch danger area.—A land area drawn as a circle about the launch point with tangents to the circle extending to the ocean, parallel to the intended flight azimuth of the missile. This is based on calculated explosive velocities, TNT equivalents, toxic propellant dispersion, fragment dispersion, and the ability of an erratic missile to maneuver off the launch pad before range safety destruct action can be taken.

More importantly, larger radii, showing the extent of the 0.1 and 0.3 pound per square inch overpressure effects from a detonation in air (after launch) are included on the graphic. The 0.1 pound per square inch level is the level above which window glass breakage is probable. The 0.3 pound per square inch level is the level above which some studies indicate sufficient energy is imparted to window debris to cause a hazard to personnel. These overpressure radii represent an explosive equivalency of 80,000 pounds TNT. Abnormal weather effects can cause a fivefold increase or significant decrease in these overpressure radii.


EXPLOSIVE SAFETY ARCS FOR TRIDENT I (C4) MISSILE
KENNEDY SPACE CENTER INDUSTRIAL AREA
B. D. R. - BLAST DANGER RADIUS
L. D. R. - LAUNCH DANGER RADIUS
BANANA RIVER
CAPE CANAVERAL AIR FORCE STATION INDUSTRIAL AREA
0.1 PSI
0.3 PSI
LC-37
LC-25
L. D. R.
B. D. R.
3,000'
6,500'
5000'
14,500'
N
0
5000
10000
SCALE (FT)

BUILDINGS WITHIN ARC

Mr. SIKES. Provide a listing of the number and type of buildings which fall within these arcs and an estimate of the number of personnel occupying each during the hours test launches will be made.

[The information follows:]

Captain CLARK. The attached table provides a listing of personnel numbers and building types falling within the explosive safety arcs:

LAUNCH COMPLEX 37

Missile	Radius (feet)	Launch complex buildings	Government buildings	Other facilities [1]	Launch personnel (protected)	Other Government personnel
C–4 (BDA)	3,000	6	---	16	100	-----
D–5 (BDA)	4,000	6	---	29	100	-----
C–4 (LDA)	5,000	11	---	39	100	-----
D–5 (LDA)	7,000	11	---	42	100	-----
C–4 (0.1 psi)	14,500	11	54	162	100	[2] 1,000
D–5 (0.1 psi)	16,800	11	94	169	100	[2] 1,200

LAUNCH COMPLEX 25

Missile	Radius (feet)	Launch complex buildings	Government buildings	Other facilities [1]	Non-Government buildings	Launch personnel (protected)	Other Government personnel
C–4 (BDA)	3,000	17	---	11	0	110	---
D–5 (BDA)	5,000	17	---	23	0	110	---
C–4 (LDA)	4,000	33	---	32	0	110	[2] 405
D–5 (LDA)	7,000	42	15	40	0	110	[2] 450
C–4 (0.1 psi)	14,500	63	260	272	286	110	[2 3] 500
D–5 (0.1 psi)	16,800	70	305	345	408	110	[2 3] 550

[1] Includes tanks, transformers, switching gear, etc.

[2] Restrictions to be imposed on personnel not essential to launch presently under study by AFETR.

[3] Overpressure radii also encompass portions of Cape Canaveral civil population, however, number is indeterminate.

Mr. SIKES. How many of these buildings are on Government property or are occupied by Government personnel?

Capt. CLARK. All buildings, with the exception of those structures listed as being on private property, within the 14,500 foot radius from LC–25, are located on Government property and occupied entirely by Government personnel.

Mr. SIKES. Describe in detail the circumstances under which the explosive arcs you describe would be hazardous to private property and personnel. Would you normally launch under these conditions?

Capt. CLARK. The 0.1 overpressure arc from LC-25 is the only explosive safety arc which is shown on the explosive safety arc maps to extend over private property. At an overpressure of 0.1 psi the only hazard to property is that of window breakage or cracking, depending on the size and strength of the window. The probability of such damage to each window subjected to that pressure ranges from about 3 chances in 100 to one chance in 100 million, depending on the size and strength of the glass. The only hazard to personnel at this overpressure level is from a large plate glass falling from its frame. Although the 0.3 psi arc from LC–25, as shown on the map, does not extend over private property, atmospheric conditions other than those standard conditions for which the arcs shown in the map were com-

puted can cause and increase in the 0.3 psi overpressure arc sufficient to extend over private property. The 0.3 psi level is the level above which some studies indicate sufficient energy is imparted to window glass fragments to penetrate human skin and flesh. The precise conditions under which the range commander will approve launches has not been decided.

DANGERS TO CIVILIANS

Mr. SIKES. Exactly what dangers do these launches pose to the civilian population? In your letter to Chairman Price, in paragraph 2 you cite a possibility of cracking windows. That is in contrast to your letter to us in which you cite breaking windows and hazards to the nearby community. Which is it; is there only a possibility of cracked windows as you told the authorizing committee or is there a real danger to the community as you told us?

Capt. CLARK. For any specific weight of explosive, 80,000 lbs. in this case, overpressures will be created upon detonation. The overpressure at a specified point depends in a highly complex manner upon the altitude at which the detonation occurs, the distance between the detonation and the point specified, and the profile of sound velocities relative to the ground as a function of altitude—which in turn is a reflection of atmospheric and wind conditions. Atmospheric conditions can change the expected pressure at a specified point, all other things being equal, by more than a factor of ten.

As discussed in response to the previous question no property damage other than window cracks or breakage, depending on the size and strength of the glass, should be expected, even with low probability, when the over pressure is 0.1 psi. However, if atmospheric conditions increase the overpressure to 0.3 psi some hazard of injury of the civilian population would exist, the hazard becoming greater with still higher overpressures.

Therefore, a real danger to the community would exist if a Trident I, C–4, missile, which is potentially capable of detonating, was launched from LC–25 when adverse local atmospheric conditions prevailed, but a small number of cracked windows is more likely possible when favorable atmospheric conditions prevail.

Mr. SIKES. For the record, provide a copy of the letter from Assistant Secretary Bowers to Chairman Price, dated August 10, 1976.

[The letter follows:]

DEPARTMENT OF THE NAVY,
OFFICE OF THE SECRETARY,
Washington, D.C., August 10, 1976.

Hon. MELVIN PRICE,
Chairman, Committee on Armed Services,
U.S. House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: Facilities to support the Trident weapons system have been authorized at various locations by the fiscal year 1974 through fiscal year 1976 Military Construction Authorization Acts. Planning until now for the entire developmental flight test program for the Trident I (C–4) missile envisaged use of launch complex 25 (LC–25) at Cape Canaveral, and appropriate modifications for that purpose were made under authority provided by the fiscal year 1974 Military Construction Authorization Act. This launch complex was used for the Polaris and Poseidon flight test programs and the supporting facilities in the proximity are, in general, suitable for use by the Trident missile program. However, it is one of the southernmost launch facilities at the cape and hence adjacent

to the commercial port of Port Canaveral as well as the town of Cape Canaveral.

Recent hazard studies have assembled data which show that the overpressure threshold at which window glass cracking may occur in a part of the local community would be exceeded if a Trident C–4X missile detonates on the pad at LC–25, or in the first 20 seconds of normal flight when launched from LC–25, unless favorable atmospheric conditions exist. Detonation of a Trident I (C–4) second stage propulsion motor, when static tested on May 4, 1974, and subsequent extensive investigation have disclosed that some properly manufactured solid propellants can be sufficiently damaged by the rupture of a motor case such that subsequent burning of that propellant will lead to detonation of the entire mass of propellant. Rupture of the motor case in the process of terminating thrust for the purpose of aborting the flight of an errant missile could lead to the same result.

Extensive and intensive investigations conducted during the past 2 years have provided sufficient understanding of the phenomena and forces involved to guide the development of propellants which, while damaged, will not be so severely damaged by a ruptured motor case as to lead to detonation. A considerable volume of data supports a conclusion that the propellants developed under this guidance for the Trident I (C–4) boost propulsion motors, and contained in the C–4X flight test missiles, will not be sufficiently damaged by a motor case ruptured either by excessive pressure, defective case, or incident to flight termination, to lead to detonation. However, computational models are not available which could compute the safety margin with the precision needed to support a conclusion that the probability of detonation in the first 20 seconds of flight is less than some appropriately small number, if the motor case is either intentionally or unintentionally ruptured. An empirical derivation of this probability by full scale motor static firing is, of course, completely impracticable. Therefore, it is necessary to conduct the Trident I (C–4) missile flight tests either from a very remote launch facility or under such limitations as will eliminate hazards to the adjacent civil populace.

Launch complex 37 (LC–37) is about 5 miles further away from the town of Cape Canaveral than LC–25 but closer to Titusville. However, Titusville is further away from LC–37 than Cape Canaveral is from LC–37. It can be modified to be suitable to accommodate Trident I (C–4) launch equipment for an estimated $7 million and be ready for C–4X flight tests in about 13 months. Launch complex 37 is sufficiently remote that C–4X flight tests should be possible with substantially less dependence on atmospheric conditions and without trajectory restrictions imposed.

It is not yet possible to say what trajectory restrictions and what atmospheric conditions would eliminate hazard to the civil populace should a C–4X detonate when launched from LC–25 subject to those conditions. But it appears quite certain, because any trajectory restrictions would prevent some needed evaluations and because the long-term unpredictability of local atmospheric conditions would make schedules unpredictable with resulting inefficiencies, that the missile development cost will be substantially greater than if all flight testing could be conducted at LC–37. The Navy may be able to proceed with initial launches from LC–25 under carefully controlled conditions. If some flight testing can be conducted at LC–25 the missile development cost will be less than it would be if flight testing were deferred for 13 months. Additional detail is enclosed.

In view of the foregoing it is certainly prudent and cost effective, although an exact development cost estimate cannot be made, to incur the $7 million cost of modifying LC–37. Accordingly, the Navy proposes, unless notified otherwise by the committee, to proceed with the modifications to launch complex 37, utilizing the various locations, Trident facilities authority of the Fiscal Year 1976 Military Construction Authorization Act. A similar letter is being submitted to the chairman of the Senate Armed Services Committee.

Sincerely yours,

JACK L. BOWERS,
Assistant Secretary of the Navy
(Installations and Logistics).

Attachment.

DANGERS TO INDUSTRIAL AREA

Mr. SIKES. If you move to launch complex 37, you will be casting a 0.1 pound per square inch arc over the Kennedy Space Center indus-

trial area. How many people work there, and what restriction will be placed on them during launches?

Captain CLARK. The Kennedy Space Center industrial area does not fall within the 0.1 pound per square inch arch shown; however, the Cape Canaveral AFS industrial area does. Approximately 800 people work within the CCAFS industrial area. Restrictions to be imposed on these personnel are presently under study by AFETR.

FREQUENCY OF ADVERSE PRESSURE

Mr. SIKES. In identifying the 0.1 pound per square inch arcs and 0.3 arcs, are you speaking of certain atmospheric conditions? How often do these conditions occur?

Captain CLARK. I will provide that information for the record.

[The information follows:]

Captain CLARK. The 0.1 and 0.3 pound per square inch overpressure arcs shown are not based on a specific atmospheric condition. The arcs are based on a mathematical expression which approximates experimental observations for a wide range of explosive yields and distances. No evaluation has been made to determine the frequency of occurrence of weather conditions which would provide 0.1 and 0.3 pound per square inch arcs approximating those shown. However, a preliminary review of calendar year 1975 weather records at AFETR was conducted to determine the frequency of occurrence of more favorable conditions. These conditions assumed an effective speed of sound in the direction of the city of Cape Canaveral which decreased 5 feet per second in the first 1,000 feet of altitude with no surface wind toward the city of Cape Canaveral and equates to a 0.1 pound per square inch arc of 13,000 feet radius. This review showed that the above conditions existed for a 2-hour period in the percentage of days in each of the months shown in the following table:

	Percent		Percent
January	10	July	20
February	20	August	12
March	35	September	9
April	35	October	9
May	35	November	13
June	25	December	19

REMOVAL OF CIVILIANS QUESTIONED

Mr. TALCOTT. Is it possible when you have a launch just to ask the people to absent themselves from their homes for an hour to avoid a major expense like this, or can it be done? You are going to a lot of expense, a lot of trouble, a lot of standdown time, and everything.

Admiral METZEL. I have never heard of that being done, sir.

Admiral KELLN. I think it is important to note that what has prompted the Navy to take the initiative on this is the fact that it has been revealed to us, through a very thorough study available to us in May of this year, that under certain atmospheric conditions that are not well bounded, there could be ducting or focusing which could cause glass breakage or other blast effects on structures. The uncertainty is such that you could not state that it would be merely glass breakage. There could be other effects. It is a function of the distance off the ground at which the explosion might occur. It has caused us enough concern that we feel it would not be prudent to test missiles without having the highest confidence that the weather conditions would not cause such blast effects. We are trying to find

those opportunities for very narrow permissive firing times to get off as many shots as we can.

Those weather conditions change quite rapidly too. A shift of the wind, for instance, or a lull in the wind, could change those conditions. I think it would be an unmanageable problem to try to have the civilian populace moving in and out of an area.

Mr. TALCOTT. You only have one shot a month or something like that, don't you?

Admiral KELLN. About one a month, but the point is that if the missile becomes ready tomorrow, things look good, and we evacuate, and yet at the 11th hour a wind or an inversion layer occurs, we would obviously not go ahead. We would then have people moving back into the area. Four hours later those conditions may have produced a situation where we could fire, but we don't have the populace out of the area.

Mr. TALCOTT. I just thought if it was just the cost of giving a bus ride to 100 people for a half-hour, that might be quite a bit less expensive than going to all the trouble you are, but that is just a thought.

Admiral KELLN. The other point is that as you delay the program, where we are spending a lot of money per day, it becomes expensive. If we find the right set of conditions less than 10 percent of the time, for example, at launch complex 25, the expense of waiting will far exceed the expense of relocating and getting an efficient test program going.

Mr. TALCOTT. All of these people are interested in the space program and the Navy program. They are all friends of the program. I think you will find a high degree of cooperation.

Admiral KELLN. Yes, sir. I understand your point, but I think it would be much more cost effective to go to the greater distance and take advantage of the significantly less restrictive weather criteria rather than having to work with all the constraints at launch complex 25.

Admiral METZEL. There are other things that might cause a missile hold besides the weather, and so it is an uncertain thing. I think it would be unworkable, sir.

ATMOSPHERIC IMPACT ON TESTS

Mr. SIKES. How many test launches have you been forced to cancel or delay at launch complex 25 because atmospheric conditions posed a hazard to private property and citizens?

Captain CLARK. To date no launches have been firmly scheduled in the Trident test program. No cancellations or delays in test launches during earlier programs, Polaris/Poseidon, were imposed because of atmospheric conditions.

Mr. SIKES. How many days during the past year did atmospheric conditions exist which would have prohibited a launch from launch complex 25 for civilian safety reasons only?

Captain CLARK. In a very preliminary review of calendar year 1975 weather records at AFETR, using a preliminary launch approval criteria, it was concluded that atmospheric conditions would have prohibited launching Trident I (C–4) missiles from launch complex 25 approximately 300 days of the year.

Mr. SIKES. Describe in detail the effect of the amospheric conditions on the size of the arcs.

Captain CLARK. Weather conditions other than those under which the 0.1 and 0.3 pounds per square inch arcs shown were computed can cause up to a fivefold increase or significant decrease in the arc radii. Overpressure radii are dependent on temperature and wind conditions. Depending on these conditions the atmosphere may act like an acoustic lens and cause the overpressure not to decrease with distance as it would with a "standard" atmosphere. Temperature inversions, that is, an increase in temperature with altitude, tend to duct sound waves along the surface of the Earth and can result in significant magnification of the overpressure. Surface winds influence sound propagation in much of the same way. Ground friction reduces the near-surface wind speed below the free-air circulation value so that downwind from an explosion the wave travels slower at the ground than aloft, resulting in ducting.

COMMITTEE OPTIONS EXAMINED

Mr. SIKES. The committee finds itself in a position of having approved $1 million to modify a launch complex at which to test these important weapons. Now we are told that that site won't satisfy the requirement and that $7 million more is needed at another location. The committee also is given to understand that if the $7 million is approved, it may not meet the need for follow-on testing and more money would be needed at still another location.

Further, the committee would conclude from testimony that more than 2 years has passed since the problem was identified and solutions sought—that has been modified somewhat in the discussion here today—and almost a month passed from the time the authorizing committee was notified until we were notified, despite the Navy position that this matter is urgent.

On the other hand, the committee is aware of the importance of the Trident system to our national defense, and it has no desire to be the cause of any delay in having the system operational.

The questions before the committee, Admiral, are on the critical nature of this project to the national defense. It appears that since the problem has been identified, by the time that you can have new facilities available you are not going to be using it for more than 10 or 11 test shots; is that correct?

Admiral METZEL. Approximately nine, Mr. Chairman. That is our current plan.

Admiral KELLN. Let me modify that slightly. It could happen that the constraints at launch complex 25 could be such that we would get one or even no shots off. We would like to get as many as we can. In the time frame of preparing launch complex 37, we could possibly get up to nine, depending on the constraints.

Mr. SIKES. What you are talking about is that it could be dangerous to life. Will this occur with the tests that are going to be conducted on complex 25?

Admiral KELLN. We will not fire at launch complex 25 if the conditions are such that there would be any danger to life. This is the whole motivation for the Navy, knowing that those conditions that

will allow us to fire occur during such a small percentage of the time that it becomes more cost effective with——

Mr. SIKES. You are telling us that the Navy is firmly convinced that an expenditure of $7 million is essential for the remainder of the testing, even though the number of tests is quite small?

Admiral KELLN. Yes, sir, because of the size of the program, and the added cost of the program per day resulting from any delay. We would be fare more prudent to get launch complex 37 ready. It could turn out that no shots could be launched from launch complex 25. That is a possibility and a real one.

Mr. SIKES. You would not have that limitation at 37?

Admiral KELLN. That is correct, sir.

Mr. SIKES. Mr. Patten?

COST PER TEST

Mr. PATTEN. Is 37 the last one we used for the Apollo program?

Admiral METZEL. No, sir, it was in the Saturn program.

Mr. PATTEN. I probably walked all over it. I was down there for nearly every launch as a member of the Space Committee.

Do you use hydrogen-oxygen for your propellant?

Admiral METZEL. No, sir, it is a solid propellant.

Admiral KELLN. Submarine propellants are solid because of the possibility of exposure of the submarine crew to injurious gases from separately stored liquid propellants.

Mr. PATTEN. You have to spend almost $1 million per shot or $7 million for nine shots. The truth is you haven't ruled out that the next class, say the five, will be satisfactory.

Admiral KELLN. Yes, sir; but as I stated before, at this time it would not be prudent to make that commitment because we have not thoroughly studied that question.

Mr. PATTEN. But based on past experience, and we have been in this game quite a while now, nearly 20 years, the impression that we gain here, isn't it correct, that when we say it is going to be nine that we are getting more use out of it? Would that be a good conclusion?

Admiral METZEL. As soon as we make the move to launch complex 37—we will move a lot of the equipment—launch complex 25 would no longer be usable for Trident missile launches.

Mr. PATTEN. I am talking about 37 now.

Admiral METZEL. Oh.

Mr. PATTEN. If you are only going to get nine trial tests out of spending $7 million——

Admiral METZEL. No, sir; we hope to get 9 off at launch complex 25, and then the remainder of the program, 11 to 16 shots, off at launch complex 37.

Mr. PATTEN. Would your answer be any different if you considered any other launch site besides 37, considering the future needs?

Admiral KELLN. Considering the future needs, and the immediacy of this firing, which could occur as early as October, and the investment that has already been put into complex 37 as opposed to some other remote location, and the capital investment that you would have to make in this proposed remote site, you are talking about a schedule delay of several years with launch complex 37, we have our instrumentation there. We do have to run some new cables but we have our

people there, the buildings can remain as built, our harbor can remain as built, our wharf can remain, and it is by far the most prudent and cost effective way to complete this program. We will shoot the greater majority of missiles from launch complex 37, and I think the modification cost will be recovered many times over, even if it only saves several weeks of time.

Mr. PATTEN. Nothing further.

Mr. SIKES. Did you fully examine all other possible areas at the cape?

Admiral MARSCHALL. Mr. Chairman, launch complex 37 is the most remote from habitation.

Mr. SIKES. Mr. McEwen?

Mr. MCEWEN. No questions.

Mr. SIKES. On my right?

UTILIZATION OF LAUNCH COMPLEX 25

Mr. MCKAY. How long have you been operating at 25?

Admiral METZEL. Since the start of the Polaris program back in the late 1950's.

Mr. MCKAY. How many shots did you get off there?

Admiral METZEL. I defer to Captain Clark.

Captain CLARK. We had 20 Poseidon, and I am not quite sure how many Polaris. We can provide that for the record.

Admiral METZEL. Essentially all of the pad launches in the Polaris and Poseidon program. We will have to supply that.

Mr. MCKAY. Off of 25, is that right?

Admiral METZEL. Yes, sir.

[The information follows:]

The following table summarizes Polaris (AX, A1X, A2X, A3X) and Poseidon (C3X) flight tests launched from LC–25 and LC–29, LC–29 is immediately adjacent to LC–25.

Missile	*LC–25*	*LC–29*
AX	16	---
A–1–X	12	25
A–2–X	11	17
A–3–X	11	18
C–3–X	17	---
Total	67	60

Mr. MCKAY. You are moving from 25 because you have a different propellant?

Admiral METZEL. Plus new information on the potential hazards in launching from that pad.

Mr. MCKAY. Which you theoretically at least should have had 2 years ago.

Admiral KELLN. Yes, sir, but we did not have the equivalent TNT explosive with Poseidon that we will with the Trident I missile.

Mr. MCKAY. You came up with your testing that alerted you to this 2 years ago. It has taken you until May to know that this propellant——

Admiral KELLN. No, sir, that is not correct. We are aware as we were aware in the Polaris program that you can under certain condi-

tions detonate the propellant. This has not been a surprise to this R. & D. program or to any other missile development program. The propellant in a motor casing under the right conditions, regardless of what it is, can go high order.

However, our knowledge of how explosions propagate has improved. Just this May a very thorough study has been provided, which indicates that that measure of safety which we thought previously existed, and probably did because of the lesser volume of propellant, no longer exists. We have now crossed over that line with this missile motor, based on its equivalent TNT explosive, and certain weather conditions. It is, therefore, not a prudent course of action to continue.

LONG-RANGE UTILIZATION OF COMPLEX 37

Mr. McKay. Let's take that same theory as you move to 37. Is it possible in your projections at the present time that your new calculations of the thrust, power, and explosive potential of this missile could also put you in 37 in that same mode, that your danger factor is too high at 37? How far down would that go in your next round of tests before complex 37 is out of the program?

Admiral Kelln. Our information to date, and it is the best scientific information available, says that we are within the safe zone. We provided those diagrams to you.

SAFETY MARGIN

Mr. McKay. What margin of safety, as far as distance is concerned, do you figure you are in, with all potential that you can see now, if this missile should explode?

Admiral Kelln. We are well within the 0.1 pound per square inch overpressure limit. That boundary is far from any civilian——

Mr. McKay. How far is that? Is it 1 mile, 2 miles, a block?

Admiral Metzel. From 37?

Mr. McKay. From your danger point. How far is the civilian population from your danger point?

Mr. Patten. You said 40,000 feet.

Admiral Metzel. I think I have a couple of charts that might help.

Mr. Patten. Isn't it 7 or 8 miles?

Admiral Metzel. Here is the civilian community, sir, down here. Here is launch complex 25. Here is where we are moving—to launch complex 37. There is some community here on Merritt Island, and then there is Titusville over this way. It is about 7 or 8 miles from launch complex 37 to the city of Cape Canaveral.

Mr. Patten. This is a mile.

Admiral Kelln. To answer your question, I have just done the calculations within a few tenths of a mile. It is approximately 6 miles from the civliian community for the one-tenth psi over-pressure line, by shifting that additional distance to the north.

Mr. McKay. Then you have no other community. This is all test facility community throughout: is that right?

Admiral Marschall. The circle falls within Cape Canaveral.

Admiral Metzel. From Launch Complex 25, the town of Cape Canaveral, is 2.4 miles. From Launch Complex 37, it is 9.1. Then

from the community at Merritt Island and the community at Titusville, Launch Complex 37 is 11.1 miles and 14.9 miles respectively.

Mr. McKay. There is nothing out in the other direction.

Admiral Metzel. Titusville is over to the west. I think there is another chart in here that shows that. Here is another chart. You can see Titusville is over here. Here is the Cape. There is Launch Complex 25, and there is Launch Complex 37.

Mr. McKay. What is this historic site you are going to get into? Launch complex historic site, have you made that a monument now?

Admiral Metzel. That may be where they launched the people to the Moon. That business goes on down here.

Mr. McKay. That is part of the launch complex though. It is not a monument, a visitor center.

Admiral Marschall. The whole circle falls within the Cape Kennedy Complex.

Mr. McKay. The whole business.

Admiral Marschall. In other words, we don't infringe on any of the civilian community.

Mr. McKay. Do you have that same evacuation potential over here?

Admiral Metzel. Yes, because this is all part of the test range.

Admiral Kelln. We always evacuate.

Mr. Talcott. We are only talking about civilians here. That is what I was asking, if they can't kick out the civilians. Can they kick out the Government employees?

Admiral Metzel. The Government employees or contractors we can ask to get off the place or into a blockhouse.

OTHER TEST FACILITIES

Mr. McKay. Do you have any other places where you test your missile program in the United States?

Admiral Metzel. The Air Force uses Vandenberg out in California.

Mr. McKay. But do you?

Admiral Metzel. No, sir; we do not.

Mr. McKay. Do you work with the Air Force in Vandenberg or elsewhere, in your program?

Admiral Metzel. In a limited sense—some of our re-entry bodies are put in flight on their missiles, and we did indeed do some testing for this Trident program with our re-entry bodies going from Vandenberg on Minuteman missiles. However, Vandenberg is not involved with our missiles. The Trident missiles will all be test flown at Cape Canaveral. In the past, Polaris and Poseidon missiles have all been done from launch complex 25 or from submarines that load the missiles at Cape Canaveral and launch them at sea.

Admiral Kelln. That is where we have our capital investment for data reduction, our range safety, things that support the missile test and evaluation programs.

Mr. McKay. All here and no other place.

Admiral Kelln. That is correct.

Admiral Metzel. In these buildings are the facilities with which we assemble and check out the missiles to be launched from this pad. There is a very large capital investment in this complex.

RELATIONSHIP TO SPACE SHUTTLE FACILITIES

Mr. ALLEN. Admiral, this landing strip that is out here on the Cape, is that the skid strip?

Admiral METZEL. That is the skid strip.

Mr. ALLEN. That is not the space shuttle landing strip.

Admiral KELLN. That is correct.

Admiral METZEL. I am not sure about the space shuttle.

Mr. ALLEN. Can you provide the relationship of 37 to the space shuttle landing strip?

Admiral METZEL. Yes, sir.

Admiral KELLN. The space shuttle landing strip is located northwest of LC–37 on Merritt Island at a distance of 44,000 feet to the closest point.

SAFETY CRITERIA AUTHORITY

Mr. TALCOTT. May I ask who sets these safety standards?

Admiral METZEL. Ultimately the Air Force eastern range safety officer.

Mr. TALCOTT. That is the standard that the Navy complies with?

Admiral METZEL. Yes, sir.

Mr. TALCOTT. You wouldn't be able to fly from Launch Complex 25 under the standards that you are required to live by.

Admiral METZEL. No, sir; we believe that we will be able to get some shots off there, but under very restricted conditions, and we think those restrictions are going to be severe enough that it will make our program there very inefficient.

Mr. TALCOTT. But you don't have the power or the authority to reduce those safety requirements.

Admiral METZEL. No, sir; we can't unilaterally say that we are going to ignore those.

Mr. TALCOTT. You can't waive a restriction?

Admiral METZEL. No, sir.

Mr. TALCOTT. You have to comply.

Admiral METZEL. That is correct.

Mr. TALCOTT. And in the event that you don't you could very well be told you just can't operate from Launch Complex 25.

Admiral METZEL. That is a possibility; yes, sir. We are currently negotiating with the Air Force about the conditions under which firing will be allowed from 25.

Mr. TALCOTT. I don't know who the final authority is, but the appropriate authorities are simply not going to let you reduce the safety requirements.

Admiral METZEL. That is correct.

Mr. TALCOTT. You have to comply with higher safety standards, now that you are aware of this new criteria.

Admiral METZEL. Yes, sir; that is correct.

Admiral KELLN. And that is exactly what is happening.

Mr. TALCOTT. It does look, as Mr. Patten suggested, as if this is a very high cost venture, $7 million, to fire only seven shots. That is $1 million a test. It is not like testing an M–1 rifle or anything, I take it.

Admiral METZEL. No, sir; but cost of the missile being tested and cost of conducting that test——

Mr. TALCOTT. This is a minimal amount.

Admiral METZEL. Yes, sir; it is. We are in a missile development program just a portion of the strategic weapons system development, that in fiscal year 1977 is a $403 million program. That is more than $1 million a day. If we delay the whole program we potentially are going to continue spending at that rate longer than planned in the future.

Mr. TALCOTT. Is there any way you can go ahead with the program without these tests?

Admiral METZEL. No, sir. As I said in my statement, we have about exhausted the things we can do. We really must go into the air now.

Mr. TALCOTT. And we are sure we are going to go ahead with the Trident weapons system.

Admiral METZEL. Yes, sir; absolutely.

Mr. TALCOTT. You are absolutely sure.

Admiral METZEL. Yes, sir.

Mr. TALCOTT. Thank you.

FEWER TESTING PROBLEMS

Mr. MCEWEN. Is this situation presenting substantially more problems than your earlier systems on Polaris?

Admiral KELLN. I have heard Admiral Smith make the comment that at this point in time, this program has experienced relatively fewer problems than other previous ones. For instance, during Polaris missile development we had disappointments in the R&D area from time to time, but in the Trident program we have programed time and effort to identify those problems and to solve them. I think that if he were here—and he apologizes for being out of the country right now—Admiral Smith would state that this program has, in its development to date, been a relatively smooth one considering the advances being made in capabilities, range, and technology.

Mr. MCEWEN. You have had two of these explode now?

Admiral KELLN. We have had a second-stage missile motor detonation in the summer of 1974 and one in 1975. Those second-stage problems we feel with high confidence are understood and have been resolved.

In May of this year, a first-stage motor exploded during a test of its flight termination system, a nontactical flight requirement that we have to have on the missile when it is fired from Cape Canaveral such that an errant missile can be destroyed in flight. The first design of the flight termination system was unsatisfactory. That has now been redesigned and we are undergoing a series of tests to confirm that design.

Mr. SIKES. No further questions.

Mr. PATTEN. Thank you, gentlemen. You are wonderful.

Admiral MARSCHALL. Thank you, Mr. Chairman.

WEDNESDAY, SEPTEMBER 22, 1976.

ARMY RESERVE FLIGHT FACILITY

WITNESSES

MAJ. GEN. HENRY MOHR, CHIEF OF ARMY RESERVE, DEPARTMENT OF THE ARMY
COL. JOHN A. THOMAS, JR., CHIEF, LOGISTICS DIVISION, OFFICE CHIEF OF ARMY RESERVE
LT. COL. J. R. COCHRAN, AVIATION DIVISION, HEADQUARTERS, 1ST U.S. ARMY

OPENING STATEMENT OF THE CHAIRMAN

Mr. SIKES. The committee will come to order.

General Mohr, the committee has asked you to meet with us this morning in order to provide some information, which is needed on the proposed transfer of the site for the LeRoy, N.Y., Army Reserve Flight Facility. The committee does not feel that it has all the information which is needed to act on the proposal that is before us. There are a number of options which appear to be open. We hope that you can cast some illumination on the questions that arise, or which have arisen, in the committee's collective minds.

The alternatives appear to be that the units stay at LeRoy, move to Fort Drum, lease facilities at Syracuse, or build new facilities at Syracuse. We need to know more about the actual number of people who are going to use this facility. We know that your recommendation is to build a new facility costing about $1 million; the other alternatives cost much less. We want you to have what is required for effective training of the reserve unit, but at the same time we want to be sure that we have the facts, and that we avoid any unnecessary expenditures.

Do you want to take a very few minutes to outline the situation as you see it, and tell us what you recommend? Then we will have questions from the members of the committee who have expressed concern about the lack of information that we have had thus far.

Mr. MCEWEN. Mr. Chairman?

Mr. SIKES. Mr. McEwen.

Mr. MCEWEN. I have a statement. I wonder if it would be in order to give it at this time.

Mr. SIKES. It would be quite all right to give your statement. That will help orient General Mohr and his staff to the questions which have been raised by this committee.

Please go ahead.

STATEMENT BY HON. ROBERT C. M'EWEN

Mr. McEwen. Thank you, Mr. Chairman.

In August 1973, a study conducted by Fort Drum officials, which was directed by the commander of the 1st U.S. Army, recommended Wheeler Sack Army Airfield, Fort Drum, N.Y., as the replacement site for the LeRoy, N.Y., Army Reserve Flight Facility (ARFFAC). In spite of the fact that it was accomplished by competent Army officers, as directed by their higher headquarters, the study was rejected as not being objective.

The Army desires to relocate this facility to Hancock Field, Syracuse, N.Y., by leasing temporarily a civilian hangar with the intent of requesting funds for the construction of a new hangar. The question arose as to whether construction of a new facility at Syracuse, and the costs of maintaining two facilities—one at Syracuse and one at Fort Drum—could be justified while the facility at Fort Drum is capable of accommodating the ARFFAC and is presently underutilized. The ARFFAC presently consists of 12 aircraft—10 helicopters and 2 fixed wing—and employs seven full-time technicians. It supports the Reserve aviation training of 21 officer aviators and 31 enlisted men—this includes the 7 full-time technicians who serve a dual capacity as Reservists, 2 officers, and 5 enlisted.

In my attempts to obtain justification for the relocation of this facility to Syracuse, over the past several years, I have repeatedly received erroneous information as to the suitability of the Fort Drum facility to house the ARFFAC and to conduct training there, and on the comparative costs of Fort Drum versus Hancock Field. I will not go into this further, as it is in the past. However, it was for this reason, and because of the Army's stated intent to come to this committee in the near future for funds for a new facility, that I brought this matter to the attention of this subcommittee. I believe that the subject of a permanent relocation site should be resolved before people are dislocated, and rent or buy homes at what could be a temporary site. Here I am referring to the seven technicians who are full-time employees at this ARFFAC.

I am aware of the inadequacies of the LeRoy facility and can understand that you are anxious to move. I am aware of the safety factor and would not wish to jeopardize the safety of our soldiers. In this respect, however, it was my understanding that the poor condition of the runway of fixed-wing aircraft was of greatest concern. This has already been temporarily solved by relocating your fixed-wing aircraft to a nearby airfield.

During hearings before this committee on April 5, 1976, some testimony was given which seemed questionable. For example, testimony indicated that renovation costs to make Wheeler Sack Army Airfield acceptable were an estimated $1,386,000. Yet when asked why no MCA projects were programed for the airfield, since it is currently used by the active Army and National Guard, an April 26, 1976—3 weeks later—information paper from the Army stated:

The building is listed on the real property records as being in good condition and is currently being utilized for its intended purpose. * * * There are no hangar or airfield MCA projects programed at Fort Drum through fiscal year 1978.

The same paper indicated that airfield security met minimum requirements of the Army's draft regulation upgrading security requirements, even though testimony indicated security to be inadequate. As a result of this testimony, the committee requested that our surveys and investigative staff look into this matter.

The staff study indicates that the initial cost of a new facility—plus annual leasing and utilities costs of an estimated $28,000 pending completion of construction—at Hancock Field would be approximately $1 million more than would be the rehabilitation costs related to relocation to Fort Drum, and once completed, the annual expense to the Government would be $16,600 greater while operating two facilities—Hancock Field and Wheeler Sack. As to the complete rehabilitation of the Wheeler Sack hangar, the report states:

> The investigative staff can find no compelling reason to recommend the complete rehabilitation of the WSAAF hangar, with or without the Army Reserve Flight Facility being relocated there. The hangar is currently serviceable and about 63 percent of the floor space and 30 percent of the office, shop, storage and classroom space is used year round.
>
> Curiously, the U.S. Army and National Guard use the hangar but have not seen fit to request money for rehabilitation, yet the Army Reserve, which does not use the hangar, insists that it must be completely rehabilitated if their flight facility is to be located there.

It seems evident from the study that Fort Drum has all the necessary facilities to house and maintain aircraft, to conduct classroom instruction and maintenance training for enlisted personnel, and to conduct flight training, and at far less cost than at Hancock Field. It becomes a question, then, of whether the use made of the ARFFAC for reserve training—other than 2 weeks annual training which I assume is conducted elsewhere with the parent units—by so few persons, and of whether the advantages, if any, to recruitment and retention of personnel, justifies the high initial and recurring cost of relocation to Hancock Field as opposed to Fort Drum. It is in these latter areas that the information—or lack of information—contained in the investigative staff report, is startling.

A basic question when anybody is spending money—much less the taxpayer's—is what will it be used for. Yet when asked how often individuals drilled at the ARFFAC and what training they received, the reply was—and I quote from the investigative staff study:

> There are no records which can be used to determine the exact number of drills an individual reservist attended at the flight facility versus those attended at the parent unit site.

Mr. SIKES. Let me interrupt you for just a moment.

General Mohr, please note this particular item.

Will you repeat what you have just read? That has been a source of considerable concern to the committee.

Mr. MCEWEN. Yes, sir, Mr. Chairman.

I am quoting here, General Mohr, from the report of the surveys and investigations staff. They say, when they asked how often individuals drilled at your Army Reserve Flight Facility, ARFFAC, and what training they received, the reply was—and I quote the investigative report:

> There are no records which can be used to determine the exact number of drills an individual reservist attended at the flight facility versus those attended

at the parent unit site. Furthermore, for those reservists authorized AFTP there is no record of how many visits were made to the flight facility to accumulate credit for AFTP performed. Accordingly, the above data is, at best, an approximation.

That appears, Mr. Chairman and members of the committee and General Mohr, on page 36 of the survey and investigations staff report.

To the question "How many hours of training, both hands-on and classroom, did each enlisted man assigned receive at the ARFFAC during the past year?", the response was "Records to support a response to this question do not exist. * * *"

The report states that the four enlisted men of the 479th Engineers (Watertown) and the 464th Engineers (Schenectady) trained with their parent units rather than commute the long distance to LeRoy. Three are helicopter repairmen and one is an aviation supply specialist, yet they never go where the helicopters are kept and maintained.

In the case of the 1209th Army Garrison (Syracuse) it could only be determined that the majority of their personnel had a large portion of their regular drills (possibly 75 percent) with their parent unit in Syracuse. This includes two in flight operations, two control tower operators, one supply specialist, three aircraft mechanics who only spend one quarter or less of their drill time at the ARFFAC.

There appears to be no control exercised, no records kept, no organized training for enlisted men at the ARFFAC.

As to the use of the airfield, it was used last year for 242 days of 365 for 1215.7 hours of flight. This equates to 5.02 hours of flight use per day for 242 days, if one assumes that only 1 aircraft was flying at a time. Daily average use of this field by this calculation would be considerably less if 2 to 12 of the aircraft were flown at the same time. For aviators, this equals 58 hours each per year of flying time from the ARFFAC.

The Army has expressed concern over travel time spent going to and from the ARFFAC. Yet, again, the investigative staff was told there are no records or precise methods of determining the number of times reservists travel to and from the flight facility in performance of their drills. If the enlisted men from the 1209th (Syracuse) only go to the ARFFAC one-quarter of the time, it seems unlikely that the Rochester men will go either to Syracuse or Fort Drum.

It is said that recruitment is better in highly populated areas. Yet, even though all other ARFFACS are supposedly in metropolitan areas, they are only at 85 percent average of authorized strength.

Of the 31 enlisted men currently assigned to this ARFFAC, 31 were recruited during the period from June 1973 to 1976, and 25 were discharged during the same 3-year period. This is an incredibly high turnover which raises question as to the value of the unit. But even this would only require eight recruits per year. I am not convinced, nor is the investigative staff, that this is an insurmountable problem.

Gentlemen, at this point I am far from convinced that the Army has shown adequate use of this facility, or sufficient advantage to recruitment, to justify relocation to Hancock Field while Fort Drum Airfield is available and underutilized. In hopes of gaining useful information, I hope that we may hear from General Mohr, and ask some questions on this, Mr. Chairman.

Mr. SIKES. General Mohr, you have heard Mr. McEwen's statement. He has a very legitimate interest in what happens to this reprograming. The committee of course, as I stated earlier, wants to provide the facility which is most productive at the most reasonable cost.

It has been at Le Roy. You are proposing to request a new facility at Syracuse.

Will you touch briefly on these alternatives, and will you give us your best judgment about the situation in each instance, but be sure to be specific on the information that the committee does not have about the use that is being made of the flight facility, the number of people participating, et cetera?

Will you proceed?

General MOHR. Thank you, Mr. Chairman.

I do not have a prepared statement as such, because I came over here with the intention of responding to whatever questions might arise with regard to the matter that has been under consideration. I appreciate the interest of the committee concerning the training aspects and utilization aspects of the facilities as well as the operation of the units. These matters are also vital to us as well as to the committee.

I would like to suggest to you, sir, that the fundamental issue is whether or not this unit will be moved from Le Roy to Fort Drum, and therein lies our basic concern.

OPERATIONS AT LE ROY

I appreciate Congressman McEwen's bringing out the training deficiencies that we have over at Le Roy, because yes, there are deficiencies over there, and some of these are directly related to the unsatisfactory conditions under which this unit is having to function. Surfacing some of these things I think is very appropriate.

Unfortunately, I must observe also that this move, as the committee's investigating group has observed, has kept the personnel of the Le Roy facility in a state of uncertainty. It has affected operations, morale, and training for something like 2 years, and I would suggest to this committee that if at all possible, a decision should be made very early on this matter. If a move can be facilitated before winter occurs, because we are right now not only operating at Le Roy in an unsatisfactory element, environment, but we are also——

Mr. SIKES. General, we want to accommodate you and we want to resolve this matter, but I am told that the Senate committee has not acted, and has no action scheduled on this matter.

General MOHR. No, sir, and none is required, if I may observe, sir, because we are perfectly willing to accept a lease at Syracuse on an indefinite basis, if necessary, in order to accomplish this move. That lease will be less than $50,000, and being under $50,000 we do have the authority, granted by the Congress, to execute such a move.

We are holding up at this point only because of the interest of this committee. A move before winter, in order to get out of an unsafe as well as unsatisfactory facility, is in my opinion very critical.

It has gone much too long, and I think we are pushing our luck.

ALTERNATIVES

I would suggest to you further that our examination of the circumstances, at Fort Drum, at Syracuse, and at Le Roy, has caused us to reach a decision based on a great deal of facts; namely, that Fort Drum is not an acceptable alternative and that the only alternative is to remain at Le Roy, or to move to Syracuse, where there is a facility that is open, available and waiting for us, on a leased basis.

Now whether or not we ultimately build at Syracuse on land that is available there, without cost at this point, is a decision, of course, that this committee would have to make. We have already reviewed in great detail with the committee the justification for the rejection of Fort Drum as an acceptable alternative, and I do not see at this point the need to go into the same information that we have already presented here. At this point we have reached the conclusion that Fort Drum is not an acceptable alternative, and I think this is the basic issue.

Now if the committee wishes to discuss in detail the deficiencies in training that the committee surfaced here, which are of course of interest to us too, we will be very happy to discuss them.

DRILL ATTENDANCE AT FLIGHT FACILITY

Mr. SIKES. Are you going to give us the information requested on the number of people participating?

General MOHR. Yes, sir. We have the number of people here who are participating, and of course the investigating committee also has that information in their report, sir, on page 7.

Mr. SIKES. Will you proceed to give it to the committee?

General MOHR. Yes, sir.

We have an authorized strength of 60 people, 24 officers and 36 enlisted.

Mr. NICHOLAS. Excuse me, sir. I think you are misunderstanding the question. The question is the particular personnel who attend drills, not the number of personnel who are authorized or assigned to particular units.

General MOHR. These particular people are authorized and assigned to the units that use that facility.

Mr. NICHOLAS. But the question is: Do you have information on whether they drill and, if so, where?

General MOHR. Again they will not necessarily attend each drill at this facility.

Mr. NICHOLAS. Do you have training records as to whether they attend drills or not?

General MOHR. Oh, yes, absolutely, everyone of these.

Mr. NICHOLAS. How do you keep the records?

General MOHR. They are maintained as part of their pay records.

Mr. NICHOLAS. But yet you can't tell whether——

General MOHR. No; we don't have a breakout on just where they did train, but a record is maintained by the unit.

Mr. NICHOLAS. I fail to understand that, but maybe you can make it clear.

Mr. MCEWEN. Could I interrupt just a minute here, General Mohr? Mr. Nicholas is getting right to the heart of one thing that we are

concerned about. You say the pay records would indicate whether or not these men attended drill.

General MOHR. Yes.

Mr. MCEWEN. But they would not indicate where they attended that drill.

General MOHR. Not on the pay record, no, sir.

Mr. MCEWEN. One of the arguments that you and other Army witnesses have repeatedly made before this committee is the essentiality of having this reserve flight facility near where these men are.

General MOHR. Exactly.

Mr. MCEWEN. When it came to the officers who were fliers, you said, and it is in our hearings earlier this year, that it wasn't important to the aviators, that in your words they will go wherever the planes are because they want to fly, but it had to do with the enlisted personnel, that it had to be located where it was accessible to them, but now, if I understand your response to Mr. Nicholas, there is no record of whether or not or how often they use this flight facility, whether they train with the parent unit or whether they train at the flight facility.

General MOHR. Have you had a chance to review the responses made by First Army Headquarters to your office?

Mr. MCEWEN. The responses from the Army, I don't know who made them, General Mohr, but I have, yes, sir. You are referring, to be sure we are correct, to the 17 questions which staff submitted?

General MOHR. Yes, which does respond to this.

Mr. MCEWEN. Yes, sir.

General MOHR. With regard to progressiveness of training and where did they train, yes.

Mr. MCEWEN. Mr. Chairman, would it be appropriate to put these in the record at this point, the 17 questions?

Mr. SIKES. Yes; it would.

General MOHR. I think that would be desirable because this answers many of the questions with which Mr. McEwen is concerned.

WRITTEN QUESTIONS

[The questions and answers follow:]

TRAINING PROGRAM

Question 1. The investigative study states that according to the Army Reserve officials documentation of the exact number of drills that individuals of the respective aviation sections attended with their parent unit versus those attended at the flight facility does not exist. How can an organized, aggressive training program for enlisted men involved in aviation skills be conducted as it is unknown as to when they train at the ARFFAC?

Response. This deficiency in organized training for enlisted men is recognized and measures are being planned to correct the deficiencies. Some of the measures can only be instituted in a larger centrally located physical plant. Others have already been instituted such as:

(*a*) Requiring the units' aviation officer to provide input to the unit training schedule.

(*b*) Requiring the unit to furnish a copy of their training schedule to the flight facility.

(*c*) The flight facility has been directed to maintain a record showing which individual trained at the facility on a scheduled assembly.

Question 2. How many hours of training, both hands-on and classroom, did each enlisted man assigned receive at the ARFFAC during the past year?

Response. Records to support a response to this question do not exist. Individual training records have not been maintained since the requirement was withdrawn by Department of the Army for unit members undergoing training within their unit.

Question 3. Of what did this training consist?

Response. Training for aviator personel is dictated, to a large degree, by AR 95–1 and FORSCOM Reg 350–3. Enlisted aviation mechanic training is generally centered around the actual maintenance of aircraft stationed at the flight facility. Unfortunately, hands-on training opportunities do not exist at Leroy for airfield service personnel, control tower operators and/or avionics repairmen. Only limited training of operations personnel can be accomplished at that location.

Question 4. Is training progressive? If so, how was makup training provided when an individual trained with his parent organization rather than at the ARFFAC?

Response. Before responding to this question, the term "progressive" must be defined. If progressive is meant to imply that an individual starts his training with the aviation unit by being permitted only to clean out the cargo section and step-by-step, as skills increase, is permitted to disassemble and reassemble the entire aircraft, the response to the question must be "No", the program is not progressive. Aviation personnel are school trained and arrive at the section with a base knowledge. From that point the training program for mechanics is primarily one of putting to use previously taught skills as the need for that skill arises. In essence aircraft are not purposely put in a nonoperational condition just so maintenance personnel can demonstrate their proficiency in returning the aircraft to a flyable configuration. Consequently, if during a training assembly the mechanics of a section had an opportuntiy to replace a starter generator, the replacement of such a component would not be accomplished at a later date solely for the purpose of providing training for those that may have missed the original training session.

TRAINING WITH PARENT UNIT

Question 5. The report states that the four enlisted men of the 479th (Watertown), 464th (Schenectady) trained with their parent units rather than commute the long distance to Leroy. Three are helicopter repairmen and one is an aviation supply specialist. How can these men obtain and maintain proficiency in their MOS's while training only with their parent units and while the aircraft are at the ARFFAC?

Response. The difficulties in training aviation personnel stationed over the broad expanse of New York State, especially when the flight facility is near an extreme flank, is recognized. However, some training for the helicopter repairmen can be achieved when aircraft are flown from the Leroy facility to the parent unit for training. A great deal of training for the aviation supply specialist can also be accomplished at the parent unit since many of the supply procedures relating to all Army activities are common. It is recognized that the full potenital for training these individuals is not realized under the present set up. This, again, is one of the reasons why the USAR wants to relocate the ARFFAC to a more central location such as Syracuse. This will allow these personnel to train with their aviation section at the flight facility.

Question 6. The report states that in the case of the 1209th U.S. Army Garrison (Syracuse) it could only be determined that the majority of their personnel had a large portion of their regular drills (possibly 75 percent) with their parent unit at Syracuse. Enlisted men included two in flight operations, two control tower operators, one supply specialist, three aircraft mechanics and an unauthorized wheel vehicle mechanic. Other than the wheel vehicle mechanic, how do these men maintain proficiency as they only drill 25 percent of the time at the ARFFAC?

Response. As stated earlier, real training opportunities do not exist at Leroy for a large portion of the 1209th USAG enlisted personnel. By relocating the facility to Hancock Field, it is envisioned that a closer working relationship would be developed with the Air Force and Air Guard and that training opportunities with those elements could be generated. The 1209th USAG aviation section would be stationed at Hancock which is approximately 1 mile from its parent unit. Therefore, there would be increased opportunity for the section to support the flight facility while supporting its parent unit.

Question 7. If the many enlisted men who spend all or the majority of their training with their parent units receive effective training, the traveltime to the

ARFFAC is not really a significant factor in relocating the ARFFAC. This being the case, is the ARFFAC principle a valid one?

Response. The USARFFAC principle is considered an extremely valid one. Its mission is to provide a centralized point of control for the proper operation and maintenance of aviation assets within a specific geographical area of responsibility. It conducts on a day-to-day basis individual aviator flight proficiency training and organizational maintenance of assigned or attached aircraft. It is responsible for the supervision and administration of additional flight training periods and all other aviation-related activities not conducted during unit training.

Prior to the establishment of USARFFAC's aircraft were scattered throughout the countryside with very little, if any control, poor maintenance programs and almost no supervision over aviator proficiency training.

Question 8. The study states: "The aviation sections of the 98th Division (Rochester) and 1209th (Syracuse) meet on the first weekend of each month. The combined meeting brings together 10 officer/aviators and 9 enlisted men. Aviators of the 1209th, according to Army Reserve officials, most often pick up aircraft at Leroy and fly to Syracuse or Fort Drum for training on Saturday and Sunday with their parent units." When is the "combined meeting" held if the 1209th departs to train with parent units?

Response. The word "combined" refers to training on the same date. It does not necessarily mean that the section physically conducted their training as one element. The training mission of the aviators and of their parent unit dictate whether they and their mechanics will remain at Leroy or depart Leroy for other locations. Again, exact training dates are primarily dictated by the parent unit and may or may not be on combined dates.

TRAINING AT FLIGHT FACILITY

Question 9. Similar questions could be asked about other ARFFAC units. Rather, please furnish, for the record, details on the amount and type of training conducted for enlisted men at the ARFFAC.

Response. As stated earlier, detailed records of individual training are not maintained. Type training conducted is described in response to question 3.

Question 10. The study indicates that the Leroy ARFFAC supported flight activity on 242 days or approximately 66 percent of fiscal year 1976 according to a recent survey conducted by Army Reserve officials. However, a flight activity was defined as a day that at least one flight either commenced or terminated at the ARFFAC. What was the average daily usage, 15 minutes or 8 hours? How many flights and for what duration, what purpose and by whom?

Response. As previously stated, the facility supported flight activities 242 days during fiscal year 1976. There were 974 sorties totaling 1215.7 hours of flight. The average sortie was 1.25 hours in duration which equates to an average of 5.02 hours of flight per day of flight activity: 595 training, 321 service (may include training) and 58 maintenance test sorties were accomplished. Sorties per unit were as follows:

98th Div: 260.
98th Sig Bn: 13.
359th Sig Gp: 300.
464th Engr Bn: 52.
479th Engr Bn: 73.
1209th USAG: 124.
AMSA 6 (A): 152.
Total: 974.

Question 11. Although the Army Reserve has indicated repeatedly that they are concerned, particularly as respects enlisted men, the time and distance reservists travel to and from the flight facility in performance of their drills, the investigative staff was advised there were no records available to determine the number of times the reservists travel to and from the ARFFAC. Please provide information on this for the record.

Response. Records do not exist which will support a response to this question.

METROPOLITAN VERSUS RURAL AREAS

Question 12. Although most (or all) First Army ARFFAC's are located in large metropolitan areas, I am informed that they are currently at an overall average of 85% of authorized strength (authorized 1,923, assigned 1,642). Evidently, there

is a recruitment problem in metropolitan areas even though they have a larger population to draw from. Other than higher population, is there any evidence to show that an ARFFAC would not do just as well in a more rural area?

Response. Experience has shown that greater success in both recruiting and retention can be anticipated when units are located in an area where civilian skills (industry) are compatible with military skills required by the unit. The paucity of civil aviation in rural areas inhibits location of ARFFAC's in these areas.

Question 13. Army Reserve officials have stated that experience factors have demonstrated that it is somewhat easier to maintain unit strength in the rural versus urban population centers. Would not the added recruitment effort be worth it if retention is improved?

Response. While retention is considered as at least as important as recruitment in maintaining unit strength, it is essential that an adequate population base be available to support unit fill and replacement of uncontrollable personnel losses. Additionally, the high expense of training aviation personnel requires that consideration be given to locating these units in areas which can be expected to provide the greatest numbers of already trained personnel.

Question 14. The Leroy ARFFAC is authorized 36 enlisted men and currently has 13 assigned. The 31 assigned includes 5 who have unauthorized MOS's and 5 enlisted men who are dual purpose, permanent technicians employed regularly at the ARFFAC. Evidently there is a recruitment problem now. What indication is there that this would improve with relocation of the ARFFAC?

Response. While no historical data exists on which to base a reply it would seem reasonable to conclude that once the confusion over the status of the Leroy facility has ended and it is established in adequate facilities in a central location, that recruiting and retention would improve. The uncertainty over where personnel will be required to train (efforts have been ongoing for in excess of 3 years to relocate this facility) along with the inaedquate training facilities for flight training, classroom instruction and maintenance training at Leroy have all been detrimental to the morale of the personnel assigned and are an obstacle to recruiting and retention.

Question 15. Of the 31 enlisted men assigned to the Leroy ARFFAC 31 were recruited during the 3-year period June 30, 1973 to 1976 and 25 were discharged during the same period. This does not appear to be a very good retention record. Should not retention potential be at least coequal with recruitment potential in site selection?

Response. A large percentage of enlistments generated during the late 60's and early 70's were made by individuals who elected the Reserve component option rather than wait the uncertainty of the draft. While these individuals, in most cases, made excellent soldiers they were not motivated for long-term military careers and subsequently left upon completion of their obligation. The exit window for most individuals was the period between 1973 and 1976. Additionally, while records are not available for verification, it is reasonable to assume that some of these losses were caused by a change in location of their civilian occupation and are still active in other Reserve component units. Retention and recruitment potential has been delineated by the answer to question 13.

RECRUITMENT BY PARENT UNITS

Question 16. It is implied that all recruits would come from the same area and that because of its higher population base, Syracuse would better serve this purpose. At present recruitment is accomplished in the vicinity of each parent unit. Is it the intent that this will be changed upon relocation so that all recruitment will be accomplished in the vicinity of the ARFFAC? If so, there will be little identity with the parent unit as the argument is not valid.

Response. Movement of the USARFFAC to Syracuse would place the facility in the most centralized location available to the units it supports in addition to placing it in a high population base area for improved recruiting potential. This population base would be used in addition to current recruiting areas to fill current vacancies and future losses. Identity with parent units could be maintained by conducting technical individual training at the facility and nonaviation oriented and unit training activities with the parent unit.

EX-SERVICEMEN OF OTHER SERVICES

Question 17. Have ex-servicemen from the Navy, Air Force, and Marines been considered as recruitment prospects?

Response. When the existence of ex-servicemen from other services in a given area are known they would be considered as recruitment prospects. However, it should be noted that the other services have few helicopter assets of the type used by the USAR as compared to the Army inventory. Therefore, the number of personnel in this category are limited and the impact on the recruiting potential of any given area would be minimal.

TRAINING RECORDS

General MOHR. Mr. Chairman, with regard to the exact hours of hands-on and classroom training, and by the way, we maintain records of training on the same basis that the active Army does, and so the same systems that they use are the same systems that we use, and so we no longer keep an hour-by-hour record of what an enlisted man does as he trains.

Mr. SIKES. Do you keep a record of the people who were there?

General MOHR. Yes, sir, we have a record as to who is there or where he trains.

Mr. SIKES. This is altogether too vague, General.

Now I am beginning to wonder what kind of records you keep, because your answers have not been definitive at all, at this point, as to the number of people who are participating and how often they participate in drills.

General MOHR. That can be answered, yes, sir.

Mr. SIKES. You don't have the information.

General MOHR. Do you have the specific information, Colonel?

Colonel COCHRAN. Yes, sir, I don't have the specific information as to where the individuals train but if I might explain how these records are maintained. Thev are maintained in what is called the 1379 form which goes along with the pay record to show that the individual did in fact train, attend drill that given date. That form does not show where he attended drill. In the case of those people who attended drill at the facility, what has happened in the past, admittedly it may be a little lax, and we appreciate your bringing it to our point of view, but the section leader has called the unit and said these individuals are at training drill at the facility on this date, and it is put into the record but tha is as far as it goes. In other words, it does no show where he attended drill, but there is verification that he did attend drill on a given date.

Mr. MCEWEN. Mr. Chairman, may I refer specifically to question 11, which is now part of the record?

"Question: Although the Army Reserve has indicated repeatedly that they are concerned, particularly as respects enlisted men, about the time and distance reservists travel to and from the flight facility in performance of their drills, the investigative staff was advised there were no records available to determine the number of times the reservists travel to and from the ARFFAC."

Mr. SIKES. Can you defer that for just a moment?

Finish the question.

Mr. MCEWEN [continuing reading].

Please provide information on this for the record.

Response: Records do not exist which will support a response to this question.

Mr. SIKES. General, be prepared to give the proper answer when we come back from answering the quorum call. We have 10 minutes left to answer the quorum.

[Short recess.]

Mr. SIKES. General, are you ready?

General MOHR. Yes.

Mr. SIKES. The committee will resume its discussions.

Mr. Patten, will you take over for a few minutes?

Mr. McEwen, I think you have some questions.

Mr. Patten, do you have some questions first?

Mr. PATTEN. No.

Mr. McEWEN. What was the question?

General MOHR. Question No. 11, with regard to the number of times reservists travel to and from the flight facility.

I would observe that in every case reservists would not necessarily travel to this particular flight facility. Some may go to Syracuse, for example. The same as we have in the case of Army reserve hospitals, where not all individuals training with a particular reserve hospital will report to the training center. Many will go to medical facilities in cities, military installations and others, where they will train, not necessarily at the particular home base of the unit.

Exactly what records are maintained in relation to who trains where for an individual, this is something we can examine in depth if the committee would like to, but I would suggest to you, sir, that this again is not the fundamental issue.

The issue is whether or not we remain in an unsatisfactory and unsafe facility, or whether we are permitted to move to Syracuse, where there is a safe facility and an adequate facility that we can occupy on a lease basis.

If the committee would like to have an indepth review of how training records are maintained and how training is conducted, we would be very happy to provide it, sir.

ALTERNATIVES

Mr. NICHOLAS. Could I make a point there?

I am not sure that the issue is precisely as clearcut as you have defined it. The first point I want to make is, it was the Army reservist's choice to move to an unsafe facility and they have been there for some time.

The second point is that it is not exactly clear that Camp Drum is an untenable situation in terms of recruitment. You feel it is?

General MOHR. We definitely do.

Mr. NICHOLAS. And I think that has to be taken into account, but the investigative staff is quite clear that you have not proved that it is an untenable situation and they felt they couldn't prove it was either, and that is their analysis of the situation, and I think it is a good analysis. I think it is a debatable point still.

The other point is that you say you have only two choices remaining: at Le Roy or, your only other option, moving to Syracuse.

General MOHR. That is the only other acceptable option to us.

Mr. NICHOLAS. It is not the only other acceptable option.

General MOHR. It is to us.

Mr. NICHOLAS. It is not the only other possible option. It may be that you have ruled out a third option, moving to Camp Drum, but you cannot say that because you have ruled it out, the option does not remain.

General MOHR. The option remains, but moving to Camp Drum from our viewpoint is neither feasible nor an acceptable option.

Mr. MCEWEN. Mr. Nicholas, I would ask General Mohr on that; you have said previously, General Mohr, that Camp Drum is not an acceptable alternative. You said that a couple of times here this morning.

General MOHR. Yes.

Mr. MCEWEN. And now you have added the word "feasible." It is neither acceptable nor feasible as an alternative. I think it would be most helpful to this committee if you could say exactly why Camp Drum is not acceptable or feasible as an alternative.

On what basis is it not acceptable or feasible?

General MOHR. The fundamental reason that it is not, I think is stated very well in the last sentence of the investigating committee's report. It relates to the recruiting capability in the Syracuse area versus Camp Drum. Using the committee's last sentence in the report, it says:

> Even by using the most conservative enlistment estimates it appears that the Syracuse area would be at least twice as productive in recruitment as compared to the Camp Drum area.

This is extremely significant because we are experiencing right now a substantial shortfall in personnel. We are experiencing considerable difficulty in recruiting, and for us to take the lesser of two alternatives, one that will provide less than half the recruiting capability for a particular area to support any operation, I think we would have a hard time justifying to this committee or any other committee, as well as to the people that review the national security.

It just does not appear sensible to us to take a second-rate solution, if you will, to one that is obviously to us a first alternative, where recruiting and maintenance of strength is much better assured.

The second thing is that our analysis—pardon me for continuing here but I would like to finish this point—the second point is that our own analysis indicates in great depth where the experienced, trained people are located that we need to man a facility such as this. They are very scarce in the Camp Drum area. There is an adequate supply, more than an adequate supply, in the Syracuse area.

Now add to that the fact that if we move this facility to Camp Drum, it is likely that we would lose the people, at least some of the people, that we now have trained and we have employed, and working with this operation. This would disrupt the operation. It would lower its readiness. It will be costly to retrain people, and no way, again, can I see how I would justify an action such as that to this committee or anybody else.

I hope that answers your question, Mr. McEwen.

Mr. MCEWEN. Let me be sure we have it fully answered.

Mr. Nicholas?

Mr. NICHOLAS. Since we are quoting from the investigative staff, I would like to quote the conclusion on the previous page, page 45:

DATA ON RECRUITMENT

While the investigative staff agrees with Army Reserve officials that the Syracuse relocation site would be superior for current and future Reserve recruitment for the flight facility, there has been no conclusive data presented that would support the contention that the flight facility could not be supported from the Fort Drum area population.

Do you have any conclusive data now? This is their conclusion as of August 1976.

General MOHR. Yes, I think that is an excellent conclusion and it reinforces.

Mr. NICHOLAS. Do you have some conclusive data which would support your contention?

General MOHR. Yes, I believe we do.

Mr. NICHOLAS. Since August you have developed data.

General MOHR. We have presented it to this committee before.

Mr. NICHOLAS. You presented your data in July, I believe it was.

General MOHR. That is right.

Mr. NICHOLAS. Their conclusion as of August was that there has been no conclusive data.

General MOHR. We feel there is conclusive data.

Mr. NICHOLAS. And they feel there isn't.

General MOHR. Yes. Well, I tell you what though: They do reinforce my statement of a few minutes ago, which is that Fort Drum certainly is a second choice at the very best.

Mr. NICHOLAS. I don't see that.

General MOHR. It says right in the statement that you just read:

The investigative staff agrees with Army Reserve officials that the Syracuse relocation site would be superior for current and future Reserve recruitment for the flight facility.

That is my point.

Mr. NICHOLAS. Current and future recruitment but it doesn't say it would be superior in all respects. They say they feel it would be superior for recruitment. They say there is no conclusive data it would not support the flight facility.

General MOHR. Are you suggesting that the committee would like for us to take a second-rate solution?

Mr. NICHOLAS. I don't know that it is a second-rate solution.

General MOHR. This is what this report would indicate.

Mr. NICHOLAS. You have stated that you cannot move to Fort Drum because you feel conclusively that it won't support the Reserve population. Their report says that there is no conclusive data presented as of the end of August 1976 which would support this contention. You use this conclusion to rule out Fort Drum as one of the alternatives and say, to the committee, therefore there are only two alternatives.

I am questioning the very first step.

Do you have conclusive data?

General MOHR. Yes, we do.

Mr. NICHOLAS. Have you presented it to the committee?

General MOHR. Yes, we have.

Mr. NICHOLAS. Did you present it to the surveys and investigations staff?

General MOHR. The same briefing as presented to you, and we feel it is conclusive.

Mr. NICHOLAS. I have read you their conclusion.

General MOHR. They may not consider it conclusive but we certainly do.

Mr. MCEWEN. Let me just point out, if we may go back one more page, General Mohr, page 44, the bottom of the page, and here the investigative staff is quoting the Army, paragraph 5:

> Experience factors have demonstrated that it is somewhat easier to maintain unit strength in the rural versus urban population centers. A rough approximation can be made by stating that it wou'd take 12 prospects to generate one enlistment in an urban area whereas it takes 6 prospects to generate one enlistment in a rural area.

General MOHR. Yes, sir, but again I would remind you that recruiting highly trained technical skills is vastly different from recruiting as a whole. Our analysis pertains to the availability of those skills and trained people, No. 1, because of the readiness of the unit and, No. 2, because of the cost of retraining that is involved, or of training if you will, of new people in these particular skills. Again it clearly points to Syracuse.

TURNOVER

Mr. MCEWEN. Let me point out on training and retraining, this report indicates that you have almost a complete turnover of enlisted personnel every 3 years; is that correct?

General MOHR. In the past that has been pretty much true, Congressman, and we are very much concerned about this tremendous turnover. The losses we have had over the past year have been enormous.

Mr. MCEWEN. Is this generally true?

General MOHR. It has been.

Mr. MCEWEN. Of Reserve units?

General MOHR. However, much of it is centered in the lower grades, if you will. We do maintain in many of our units the noncommissioned officers and the officers, so that the nucleus of experience is there. In lower and middle grades, yes, we do have a problem. I think the response, Congressman, to question 15 amplifies this, and I think addresses it fairly well.

Mr. MCEWEN. Again referring to the surveys and investigations staff report on page 33, the table shown there on officer aviators and enlisted men indicates personnel discharge as a percent of authorized: officer aviators is 96 percent, enlisted men 69 percent. This unit doesn't seem to fall in this pattern of the lower grades being where the turnovers are. This says exactly the opposite.

General MOHR. You are right.

Mr. MCEWEN. You just said that it is in the lower pay grades.

General MOHR. Across the board this is what I was speaking of. This is the problem we are having.

Mr. MCEWEN. That is not true in this unit, is it?

General MOHR. It may not be.

Mr. MCEWEN. It isn't according to these figures. Are they correct on page 33?

General MOHR. We have not researched this particular answer here that the investigative team came up with, so I couldn't answer your question.

Mr. MCEWEN. Just a minute, General Mohr. The surveys-investigations people—this goes to their credibility, and this committee has got to rely on them. Let me read what they say before they put this table in, and I quote:

The following table is a summary of personnel turnover data for the preceding 3 years supplied by Army Reserve officials.

Is that correct or is it incorrect?

General MOHR. This is what they say. I have not checked with this table to see if it agrees with our figures, Congressman.

Mr. NICHOLAS. You have had their report since Thursday.

Mr. MCEWEN. You have had this report as long as we have.

General MOHR. Have we checked these figures?

Colonel THOMAS. No, sir. We got the report late Thursday.

General MOHR. I will check this and verify it.

Yes, strength is a problem, no question about it.

Mr. MCEWEN. You see, General Mohr, what we are coming back to here is what you have said all along before this committee. The important thing was the facility that was available to the enlisted personnel. You have said the aviators want to fly.

General MOHR. No question about that.

Mr. MCEWEN. They will go wherever the helicopters and fixed wings are, but it is the enlisted personnel.

General MOHR. Sir, we are in total agreement with you I think for the first time.

RECRUITMENT AND TRAINING LOCATIONS

Mr. MCEWEN. And yet we don't know where the enlisted personnel do their training. This report indicates that at least with regard to Schenectady and Watertown, those two units, they do practically all of their training as far as they could find out, at their parent units.

Mr. NICHOLAS. These are very inaccurate figures.

Mr. MCEWEN. Yes, I am sorry they are not more accurate. It is sort of a guesstimate that 75 percent of the training wasn't done at the flight facility anyway.

General MOHR. That could well be.

Mr. MCEWEN. Yet this is what you base the justification on. You said the fundamental reason is "One, recruiting and retention,"—you said that here this morning—"and, two, where the experienced people are to support the facility."

General MOHR. That is right.

Mr. MCEWEN. Yet we don't know whether these people go to the facility.

General MOHR. Congressman, assuming that these figures are correct in here, again it reinforces my point, and I thank you for bringing it out, that we have got to put this unit where the people are, and that is Syracuse.

Mr. MCEWEN. But you can't tell us that they go to the facility. The best estimate we have on this is that they don't go to the facility anyway.

General MOHR. I would correct that just slightly, Congressman, because not going to that facility is really probably technically correct. However, that facility is a home base for them, and they do fan out to other areas for training, including Fort Drum, as you well know. I would not for a minute downgrade the importance of Fort Drum as a training facility. It is an outstanding one, an excellent one, and the training I observed up there this year was excellent. We do appreciate very much the support that you are giving to the improving of Fort Drum, because it is an important facility to us.

Mr. MCEWEN. You see the investigative staff, in that statement on page 45, say that while they agree with Army Reserve officials that the Syracuse relocation site would be superior for current and future Reserve recruitment "for the flight facility," they go on to say,

There is no conclusive data presented that would support the contention that would support the contention that the flight facility could not be supported from the Fort Drum area population.

They are basing that, and I quote their words, on "for the flight facility." They were assuming, in answering the question, that the personnel to be recruited supported the flight facility.

General Mohr, you have given us no evidence to base this on, that in fact they do support the flight facility. We don't know whether they go to it or not.

General MOHR. They are a part of the flight facility, and as such of course they support it.

Mr. MCEWEN. But we are talking about their going there. Let me ask this question in reference to question 6. If you would, you may turn to that question.

A move to Syracuse would put the 1209th near the flight facility. However, if men will not travel from Syracuse to Le Roy, what assurance do you have that men from the Le Roy and Rochester area will travel to Syracuse if the facility is located there?

General MOHR. Question 6?

Mr. MCEWEN. No; I am referring to question 6.

General MOHR. I am sorry, I thought you were reading question 6 and I thought I was lost there for a minute.

Mr. MCEWEN. I am referring to question 6 when I ask this question.

General MOHR. And your question is what assurance do we have that the people would travel to Syracuse from Le Roy?

Mr. MCEWEN. Yes; let's go back to question 6. Question 6 that was submitted to the Army, and I quote——

General MOHR. I think I understand the question.

Mr. MCEWEN (continuing):

The report states that in the case of the 1209th U.S. Army Garrison (Syracuse) it could only be determined that the majority of their personnel had a large portion of their regular drills (possibly 75 percent) with their parent unit at Syracuse. Enlisted men included two in-flight operations, two control tower operators, one supply specialist, three aircraft mechanics, and an unauthorized wheel vehicle mechanic. Other than the wheel vehicle mechanic, how do these men maintain proficiency as they only drill 25 percent of the time at the ARFFAC?

The response to that question was and I quote:

As stated earlier, real training opportunities do not exist at Le Roy for a large portion of the 1209th USAG enlisted personnel. By relocating the facility to Han-

cock Field, it is envisioned that a closer working relationship would be developed with the Air Force and Air Guard and that training opportunities with those elements could be generated. The 1209th USAG aviation section would be stationed at Hancock, which is approximately 1 mile from its parent unit. Therefore, there would be increased opportunity for the section to support the flight facility while supporting its parent unit.

That is the answer to that question.

Now my question relating to that question and answer is, and I repeat it: A move to Syracuse, as this indicates, would put the 1209th near the flight facility. However, if men will not travel from Syracuse to Le Roy at the present time, what assurance do we have that men from Le Roy and Rochester will travel to the Syracuse area if the facility is moved there?

General MOHR. As I recall, Congressman, there has been some examination of this issue with the people at Le Roy, and that no substantial resistance to a move from Le Roy to Syracuse was encountered on the part of the people there.

Again I appreciate the questions that you are raising here, Congressman, because each one you have raised so far tends to reinforce our case as we presented it to this committee. On question No. 6 which you just referred to, again it points out that we are functioning at Le Roy in an unsatisfactory environment.

Mr. MCEWEN. That is not at issue. We agree.

General MOHR. I appreciate that.

Mr. MCEWEN. We agree with that.

General MOHR. But it also points out the improvements that will occur if we are permitted, as we hope to do, to move this facility and this activity to Syracuse, where it can function satisfactorily.

Mr. MURTHA. Will the gentleman yield?

Mr. MCEWEN. I will be happy to yield.

Mr. MURTHA. General, I don't understand how you can say that what the gentleman from New York is saying reinforces your position. You don't know where these people are drilling, and yet you say if you move it where the people are, you don't know where they are drilling, or at least the records don't indicate where they are drilling, and you haven't been able to establish where they are drilling. I just don't understand. I can't imagine that you don't know that. Maybe the local commander does and you just haven't gotten the information yet, but I don't see how this reinforces your position at all.

It seems to me this is poor records keeping at the local level, or at least by you folks up here.

I can understand that you wouldn't need to know where they drill, but on the other hand if you want to support a case for moving this facility to Syracuse, it seems you have to know where they are drilling.

General MOHR. You are correct, sir, that this is based upon the commander's statement primarily, his observation that, yes, indeed, this is where the bulk of training is done and the activity is centered. As far as keeping individual records, which verify that, again the records of attendance are specifically maintained under very rigid regulations. If you would like, again I invite the committee to examine the methods by which this is done. Again I cite the example of other units that fan their people out to facilities and activities, agencies. They may send them to military installations or other places for training, and this is done on a day-by-day basis on the training schedule. If you

want to go back and research the training schedule for a particular day and verify that so many went here, so many went there and so forth, perhaps the exact numbers are there.

I would doubt that it would be that exact on an individual basis, but the training schedule would define where the people are doing what activities.

Mr. MURTHA. General, would you explain to this committee exactly what we are talking about, pilots or mechanics, technicians?

General MOHR. I think you have all three. I am sure you do. Some of these are mechanics, maintenance operations involved or pilots involved, control tower operators, a little bit of everything.

Mr. MCEWEN. Will the gentleman from Pennsylvania yield?

Mr. MURTHA. Yes.

Mr. MCEWEN. On this point, referring to page 12 of the survey investigation's staff report, they tell us, and I quote from that report:

> In an effort to provide a quantifying answer to the number of drills performed with the parent units, administrative personnel of all units were contacted by the flight facility officials, and the following data (some based on recollections) was provided for fiscal year 1976.

General MOHR. Congressman, I am sorry, where are you?

Mr. MCEWEN. On page 12 of the surveys and investigation staff report.

General MOHR. I am sorry, we weren't with you there.

Mr. MCEWEN. What they are saying to our committee, General Mohr, is that in an effort to, as they say:

> Provide a quantifying answer to the number of drills performed with parent units, administrative personnel of all units were contacted by flight facility officials, and the following data—some based on recollections—was provided.

General Mohr, may I suggest why we are concerned about this is precisely because you say that the fundamental reason for Fort Drum not being an acceptable alternative is because of recruiting and retention, in other words, where the personnel are located, and yet we are totally without firm evidence that these people you are referring to even go to the flight facility, or if they do, on a very limited basis.

I was prepared to say to you, and I think I may have mentioned, in the area around Fort Drum we have a serious problem on naval reserve. We have men that you will be pleased to know are moving into your Army Reserve units that have been naval reservists, because their local units are being consolidated at the facility at Liverpool in suburban Syracuse, and they include a number of Navy ratings in the aviation field, and very frankly, General Mohr, I was prepared to come to you and submit to you a pool of trained Navy aviation specialists that would welcome the opportunity of going into this unit, but, sir, I don't know whether that is the answer, because I don't know whether they train at the flight facility, or whether they train with the parent units, which are in Schenectady, Syracuse, Rochester, and Watertown, which is 8 or 10 miles from Fort Drum.

Mr. MURTHA. Would the gentleman yield?

Mr. MCEWEN. Yes.

Mr. MURTHA. Is there any possibility, General, that these men are being paid for time that they are not even spending at a facility?

General MOHR. At a flight facility?

Mr. MURTHA. At any facility.

General MOHR. No, they are paid only if they are at a unit training or at a flight facility during their operation.

Mr. MURTHA. In your answer to one of the questions, the Army's answer to the question: "How many hours of training both hands-on and classroom did each enlisted man assigned receive at ARFFAC during the past year?" What is that?

General MOHR. That is the flight facility.

Mr. MURTHA. The flight facility at Le Roy.

Response. Records to support a response to this question do not exist. Individual training records have not been maintained since the requirement was withdrawn by the Department of Army for unit members undergoing training within their unit.

General MOHR. That is correct.

Mr. MURTHA. Then how can you suggest that it is better to have this facility at Syracuse?

General MOHR. Congressman, the fundamental issue here is that here is where the activity is. Here is where the people are, and here is where the facility is.

Mr. MURTHA. How far is that facility geographically?

General MOHR. Le Roy from Syracuse?

Mr. MURTHA. Yes.

General MOHR. What, 50 miles?

Colonel COCHRAN. I would say between 70 and 80 miles from Le Roy to Syracuse.

General MOHR. Again these people—you have got to understand the concept of a flight facility, and I am not expert in the flight facility as such, not being an aviator, but we do have somebody here who can amplify that if necessary. The flight facility as such will serve a number of units, and the people that are with the flight facility may either be with the flight facility or may be with their unit while it is training, depending on just what the circumstances are. To keep a record whether he is down at the flight facility getting some maintenance, or getting a part of an aircraft, or providing something at the flight facility in the way of command control, or coordination is needed, or whether he is back with his current unit on a mission, is something we could probably ferret out of the training schedules with a little difficulty, but I think it can be done.

Mr. MURTHA. I understand now what you are saying. This is not the same type of unit training that would normally be made.

General MOHR. No; it is not a unit as such.

Mr. MURTHA. Then my question has to be, don't you have the same problem if you build it at Syracuse or at Drum?

General MOHR. No, sir, we don't. The reason for it again, as has been brought out very clearly by this group that made the investigation, Congressman, I can respond to your question at the same time with regard to the Navy people, and say we will certainly welcome any of those people from the Navy. I would suggest to you that the engineering unit that is at Watertown could very much use these people, and so we will certainly go out of our way to provide a home for them. If you can provide me any number of people that need to be considered for units or are interested in joining, I would like to know about it,

but again we get down to the technical expertise that is involved in aviation.

This isn't something that you acquire overnight. It takes a great deal of education and training.

Mr. MURTHA. And they live in Syracuse, is that what you are saying?

General MOHR. Generally along a line south of Syracuse there is quite a supply of people. I don't guess you have seen the chart on this we have presented. There is not an abundance of supply but certainly an adequate supply. As you go up around Fort Drum they are not there except——

Mr. MURTHA. How far are they from Drum?

General MOHR. Between Syracuse and Drum there are very few.

Mr. MURTHA. How far would they have to travel to go to Drum?

General MOHR. About 80 miles or so.

Mr. MURTHA. Right now it is 50 miles, is that right, that they have to travel? They have to travel 50 miles now, is that correct?

General MOHR. Some of them, yes.

Mr. MURTHA. You are suggesting that you locate it at Syracuse, which would be much closer.

General MOHR. That is right, and this is where the people are. We are having difficulty now in maintaining strength.

Mr. MURTHA. Of course the problem is, General, you don't know where they are going to be, or are you saying that they would in fact——

General MOHR. We do know where they are, yes, sir. We do know where the people are. We have run this down and we do know where the trained people are and who they are.

Mr. MURTHA. Let me rephrase my question.

You don't know where they train, but you are saying that if you relocated at Syracuse, this is where they would train.

General MOHR. No, I am not saying that the training relationship between the flight facility and the units would change, no, because the function of the flight facility is to support the units and their aviation operations that are around there. They control many of the maintenance items, operation of aircraft and many of these things are done on this flight facility. It is a support operation to a number of units.

Colonel THOMAS. The reason the flight facility was created is that we found that the unit may be authorized one helicopter which was located with the unit. Overall maintenance was unsatisfactory. Maintenance needs were met by consolidation.

Mr. MURTHA. You mean consolidation at Le Roy.

Colonel THOMAS. The consolidation is at the flight facility where maintenance is supervised.

Mr. MURTHA. But by decentralization you have the units near where the people live. You are using that same argument—actually it was counterproductive when you consolidated—you certainly had the argument that you lost a lot of people because they had to travel more distance, didn't you? Do you see what I am talking about?

General MOHR. That is an interesting point, Congressman, because while I wasn't in Washington at the time this originally occurred,

I was a commander of a reserve unit that does have a flight facility service unit. It is interesting that you raise that point, because we did centralize operations there. We weren't too scattered in the first place, but we did not have any difficulty with that. Maybe some did. I wouldn't say yes or no.

Mr. MURTHA. So this is a further step in consolidating, your effort at refining your training.

General MOHR. Getting it down to where it is going to function best and we know the people are going to be there to support it. Again it costs a lot of money to train an aviation mechanic or an aviator. In the vicinity of Fort Drum, this is why I made it so clear that we feel that Fort Drum is not an option, because again the skills that we need just aren't there.

Our surveys fairly indicate, and the charts are available to you if you would like to see them, that below this line they are there in the vicinity of Syracuse. It is in the record.

Mr. PATTEN. Is there anything further?

WILLING TO FORGO CONSTRUCTION OF NEW FACILITY

General MOHR. Mr. Chairman, one thing. We are willing to forgo construction or any plans for construction at this point, if that is what the committee desires, in order to get permission to unlock this matter which is maintaining this unit at Le Roy. We have just got to get that unit out of that facility down there, so if that is what the committee would desire for us, to at this time drop any consideration of construction at Syracuse, we are certainly willing to do that.

TECHNICIANS

Mr. MCEWEN. Mr. Chairman, that is not the answer, if I may suggest, to this problem.

General Mohr, you have got seven technicians, two officers and five enlisted personnel, that I know are anxious to see a decision as to a permanent location of the unit.

General MOHR. I agree with that.

TRAINING LOCATION

Mr. MCEWEN. Because this is their occupation full time. They have got to relocate, and we don't want them to have to relocate more than once, and the thing that I still can't get a hold of, and I don't think this committee has, is whether the personnel in these aviation units should be in the communities—that is, Schenectady, Syracuse, Rochester, and Watertown—where the parent unit is to train with the parent unit, or whether they should be in the area of the flight facility to train at the flight facility, because obviously there is no way to pick a location that will be convenient to Schenectady, Syracuse, Rochester, and Watertown, but we have got to decide where is it they are going to train?

In answer to question 1, the response was, and I quote it: "This deficiency in organized training for enlisted men is recognized, and measures are being planned to correct the deficiencies."

Well, what are those measures? What is your plan? Are you going to train them with the parent unit, or are you going to train them at the flight facility?

General MOHR. I have a representative here from the 1st Army. Would you like to respond to that?

Colonel COCHRAN. Yes, sir.

I would envision that we would train them at the flight facility for the hard skilled MOS.

General MOHR. When you use MOS, would you please refer to——

Colonel COCHRAN. Military occupational specialty.

Mr. MCEWEN. I can still tell you what mine is.

Colonel COCHRAN. That training would be conducted at the facility on the aircraft. That training that is germane to any soldier that would be done in the unit could be done at the unit. Transportation would be readily available to get the man to his unit from the facility so he could conduct training with both the unit and the facility. Right now we can't do that, because we have our people scattered throughout the State of New York, as you pointed out. Further, we have unsatisfactory facilities at Le Roy to conduct this type training. We have no classrooms, and so forth.

CONTROL TOWER OPERATORS

The reason the 1209th Garrison won't travel that 70 miles down to Le Roy is because there is nothing for them to do when they get there. We have no control tower, no training for those type specialists. These things we feel would be corrected if this facility was put at Syracuse. It would be centrally located.

Mr. MCEWEN. Included in those specialists there are control tower operators, are there not?

Colonel COCHRAN. That is correct, sir.

Mr. MCEWEN. Do you envision their training in the FAA tower at Hancock Field?

Colonel COCHRAN. No, sir, I do not. They wouldn't let them in there. I think we all recognize that. This is a problem we have with the four or five garrison units we have throughout 1st Army, control tower operator training, and we recognize it and quite frankly, sir, I don't have an answer for that.

Mr. MCEWEN. Colonel, I have an answer for you.

Colonel COCHRAN. What is that?

Mr. MCEWEN. There is an Army tower at Wheeler Sack Army Airfield, Fort Drum.

Colonel COCHRAN. That is correct.

Mr. MCEWEN. And they can train there.

Colonel COCHRAN. But are we going to move there just for control tower operators, sir?

Mr. MCEWEN. I am not suggesting that, but I am saying that all of the training that you require can be done on a military installation.

General MOHR. Congressman, I would like to go back to your fundamental point here.

No. 1, of course we do use Fort Drum. We appreciate very much the improvements again that you are responsible for up there. I know that they certainly have benefited our unit training as a whole up

there. Taking advantage of that facility for training is something we do, and will continue to do, and will continue to support Fort Drum in every way we can.

LEASE VERSUS NEW CONSTRUCTION

But to get back to your fundamental point, I stated awhile ago that we will go totally to a leased facility and drop any consideration of construction, in order to get this unit moved out of an unsafe and unsatisfactory facility, if that is what the committee desires.

Mr. PATTEN. General, there is only one issue I think, which the gentleman is making.

General MOHR. Right.

Mr. PATTEN. If you are going to Syracuse, I am sure none of us object to your having fair and reasonable facilities.

General MOHR. I know that.

Mr. PATTEN. The point you are making I think is——

General MOHR. Sir, I don't want to infer here at all——

Mr. PATTEN. We don't want to punish you, if you go to Syracuse, and keep you in a tent. That hasn't been raised. The question is, can you stay at Le Roy?

But if the transfer has got to be made, I don't think the next question even comes up.

General MOHR. Again, sir, there is a facility that we can lease available to us now at Syracuse.

Mr. SIKES. Are there further questions?

LOCATION FOR RECRUITMENT AND TRAINING

Mr. MCEWEN. One question.

General, you talk about recruiting in a geographical area, but in fact you recruit, do you not, in the area of Schnectady, of Syracuse, of Rochester, and of Watertown? That is where the recruitment is done?

General MOHR. We do recruiting in all those areas, yes, sir, but again the specialties that we require for this particular operation are available in the Syracuse area. They are simply not available in adequate numbers, as you know, in the Watertown area.

Mr. MCEWEN. No, I don't know that at all, General, because we are not talking about an awful lot of people in this unit. We are talking about a relatively few people, and when we come to those control tower operators, Colonel, I am glad you recognize that you are not going to train them in the FAA tower at Hancock Field, but you can at Wheeler Sack Field at Fort Drum. They can train there.

General MOHR. We fly them up there. We do now.

Mr. MCEWEN. Fly them up there for training?

General MOHR. Sure.

Mr. MCEWEN. But the basic thing that we are stuck on here is that we don't know who is and will utilize this flight facility, and I hope you appreciate the problem that presents, because I agree with the gentleman from New Jersey, when he said we don't want to put you in a tent, in an inadequate facility.

General MOHR. I thought we answered that, sir.

Mr. McEwen. That you have got to have a proper facility to accommodate this mission, and yet we are talking about over $1 million of construction for a facility for at most about 40-some officers and men, but we don't even know how many of them use the facility now or will in the future. I think there is a basic decision that has got to be made, and that is, are they going to do their training with the parent unit or at the flight facility, because until that is made, you are going to have a travel problem. Either you recruit in the vicinity of the flight facility and you train the tower operators, the mechanics, and the supply specialists, all of these specialties right right there at that facility, or you are not going to train at the flight facility. You are going to train them at their parent units, in which case the location of the flight facility is not of paramount consideration to recruitment.

Do I make that point clear, and do you have any argument with it?

General Mohr. Yes, sir, I do have an argument with it. We do indeed have a unique type of capability here, which the gentleman over here brought out very well I thought, that this is not a unit as you would normally consider a unit. This is a flight facility which services a number of units.

Mr. McEwen. Services it in what way, General, for training? We are talking about training for the Reserves, aren't we?

General Mohr. Yes, we are.

Mr. McEwen. How can you say it services them for training? You don't know whether they go there.

General Mohr. Yes, we do. It services them for maintenance.

Mr. McEwen. Where? In your replies you didn't furnish us that. You said you don't know when they go there or whether they go. As a matter of fact, the best estimate is, for two of these units, 75 percent of their time they are with the parent unit.

General Mohr. That is probably true. To get back to the basic concept of the flight facility operation, Congressman, I think is very necessary for the committee to understand. That is that this is not a unit as such. This is a servicing agency that coordinates and assists several units in maintenance, in control of aircraft, training in several areas, and is not the typical unit, so that its operations are oriented toward those parent units in all cases.

Mr. McEwen. The only time they go with the parent unit is when they go on training as a unit in the summer, isn't that correct?

General Mohr. No, that is not correct, sir, because they will train with some of their parent units during the IDT which is the home station training phase, and some of that will be at Fort Drum as in other places.

Mr. McEwen. When they do that unit training they are not going to go to Hancock Field. They are going to go to Drum; aren't they?

General Mohr. Unit training as such with the parent unit will probably be somewhere else than Syracuse.

Colonel Cochran. You are talking about unit training, training as a unit, that is correct.

General Mohr. Skills training is something else again.

Mr. McEwen. But the unit training, if it isn't where that unit is in Schnectady, Syracuse, Rochester, Watertown, will be at Drum.

General MOHR. Some of it.

Colonel COCHRAN. I think we have got to define individual versus unit training. We are talking about individual training being conducted at the facility.

Mr. MCEWEN. We don't know whether they go there as individuals or not. We don't have any record of it.

Colonel COCHRAN. We have admitted to that, sir. That is the situation that we hope to correct.

Mr. MCEWEN. And so we don't know where we should be recruiting in the area of the parent units or, in the area of the flight facility.

General MOHR. Again, Congressman, we go back to the point made very early that the move to Syracuse will vastly assist us in improving the training of this unit, and the training is deficient at Le Roy, no question about it.

Mr. SIKES. All right, gentlemen, I think we have spent as much time as we can on this subject. We have another subject that we should cover.

Are there questions?

Mr. MCKAY. I have had some concern about the Guard and Reserve for some time. We have been paying out a lot of money and getting questionable training. This only emphasizes it.

The question I have is beyond just Le Roy. In question 11 you are asked about the enlisted men reservists traveling to and from, and it talks about where they drill, if they drill, and your response is: "Records do not exist which will support a response to this question."

The question then comes, how do you arrive at the decision if you don't have the records to know where people are or where the units are or what they are drilling for? How do you arrive at a decision whether you need the unit at all, or what kind of a unit you are going to have, and how many men you have got? It seems very questionable.

Mr. SIKES. Do you have a comprehensive, concise answer to that?

Mr. MCKAY. That is an answer that we may want to get into at some other time, Mr. Chairman.

General MOHR. Would you like us to provide an answer for the record?

Mr. SIKES. Provide an answer for the record.

General MOHR. We will do that, sir. It is a fair question, I might observe.

Mr. SIKES. Provide the best answer you can.

General MOHR. Yes, sir.

[The information follows:]

It is apparent from the Committee's questions that the Army Reserve has not communicated adequately to the Committee the nature of the activities and mission of the Army Reserve Flight Facility (ARFFAC) now at LeRoy and which is proposed to move to Syracuse.

Prior to the establishment of ARFFAC, aircraft were located throughout a geographic area with inadequate control, marginal maintenance programs, insufficient supervision and an inadequate ability to assist units in their aviation skills proficiency training. To correct this situation. ARFFACs were formed at the most available central location to the units they support. Their mission is to provide a centralized point of control for the proper operation and maintenance of aviation assets within a geographic area. They conduct on a full-time, day-to-day basis organizational maintenance of assigned or attached aircraft and individual aviator flight proficiency training. Some of this training is in flights

of aircraft, some is on the ground and not all is at the same location. They are responsible for supervision and administration of aviation missions, additional flight training periods and other aviation-related activities, not conducted by units during unit training periods.

In the case of the LeRoy facility, much of the training assistance provided by the ARFFAC for enlisted personnel has needed improvement due to its distance from most units supported, especially in bad weather and hazardous flight conditions at LeRoy. In addition, facilities at LeRoy are not adequate for all training required. Satisfactory facilities now available for lease at Syracuse will enhance unit and ARFFAC capabilities to provide technical training for military occupation specialities (MOS).

By establishing a closer working relationship with the Air Force and Air Guard, mutual training opportunities can be generated. Training for the air traffic control tower operators can be generated by flying these personnel to Fort Drum for on-the-job training in Wheeler SAC Army Airfield tower.

While records are not required on the number of times employees and reservists travel to and from the ARFFAC, records do exist to verify that a reservist/employee trained or worked at his job on a given date either at the ARFFAC or his unit, or both. The flight facility is not a unit as such; it is a full-time maintenance, service, control and assistance operation dedicated to service and assistance to the units it supports. In the case of the facility at LeRoy, it supports six Army Reserve units located at separate geographic locations. The maintenance of records on the time and distance personnel travel to and from training or work assignments has not been a reporting requirement under normal circumstances.

Mr. NICHOLAS. Also for the record, could you provide what new conclusive information you have obtained since the completion of the investigative staff studies, which would cause you definitely to rule out Fort Drum? Provide that for the record.

General MOHR. We will be very happy to, although I think we have presented the full case, and it needs to be examined in its entirety.

The criteria analyzed in the selection of a site for this ARFFAC are retention and availability of trained personnel, federally owned property, operational factors, operating costs and environmental impact. The overriding criterion is retention of trained personnel and availability of people, for without adequate trained personnel. the flight facility could not function. The Army's findings, as listed on page 387 of the committee report, favored the location of the ARFFAC at Hancock Field in Syracuse in the areas of recruiting and retention, operational factors and operating costs. The criteria of federally owned property and environmental impact were similar for Hancock Field and Fort Drum. The conclusion presented by the Army to your committee last April was without reservation that the ARFFAC should be relocated to Hancock Field without delay. The investigative staff's report has acted to verify and support the Army's conclusion that the Syracuse relocation site is superior for current and future reserve recruitment for the flight facility. Your investigating staff's report concludes by stating, "Even by using the most conservative enlistment estimates it appears that the Syracuse area would be at least twice as productive in recruitment as compared to the Fort Drum area." The staff's report earlier states, "The investigative staff agrees with Army Reserve officials that the Syracuse relocation site would be superior for current and future reserve recruiting for the flight facility", and on the preceding page observes "Obviously. the Syracuse area would offer the better recruitment sources for sustained Reserve operations and for the replacement of reservists discharged or otherwise terminating their Reserve association." The availability of personnel trained in the required skills needed in the flight facility is critical as is the retention of personnel now employed who are trained in the required technical skills.

The investigating staff's statements indicate that five of the seven highly skilled technicians who were, incidentally, trained at considerable taxpayers expense. will not relocate to Fort Drum (page 39. S. & I. report). There are only two known individuals in the Individual Ready Reserve manpower pool within a 50-mile radius of Fort Drum who possess helicopter repairman's ratings. Whether

or not those two would be interested in employment is not known, but the availability of ony two possible individuals with the skills required is cause for alarm. It is, therefore, not understood how the investigative staff could conclude that recruitment for these hdighly specialized positions is not an insurmountable obstacle unless it is proposed that operational capability of this activity should be severely curtailed pending recruitment and training of unskilled personnel which is a difficult, time-consuming and costly undertaking. The technicians are vital to the ARFFAC as they perform day-to-day maintenance on assigned aircraft and perform other duties. The loss of five technicians would severely degrade the readiness of the aviation elements supported by the ARFFAC. Required maintenance on aircraft needed for training and readiness of aviation elements in six Reserve units could not be adequately performed. Unsafe conditions would be generated and could lead to catastrophic accidents.

The staff's conclusion that personnel problems at Fort Drum are not insurmountable apparently was based on an analysis of nonprior service individuals, 17 to 21 years of age, who were located in a 50-mile radius of Fort Drum and Syracuse where the ratio was 1 to 3.2. These individuals when recruited, would have to be school trained before they would be allowed to perform required duties on assigned aircraft. It would appear that an analysis of the prior service personnel who possess the desired skills would be more appropriate in arriving at a conclusive conclusion. The number of personnel in this category would favor Syracuse over Fort Drum as a location for the flight facility by a ratio of 17 to 1.

In summary, the information on which the Army's decision to remove Fort Drum from further consideration as a possible location for the flight facility was available before the investigative staff's study was published. The study has reinforced the conclusions already drawn from facts data collected during the Army's decisionmaking process. There appears to be no basis on which the Army Reserve could select Fort Drum as a first choice for this facility when relocation to Fort Drum would disrupt to a critical degree the operations of this important facility by forcing conditions on its trained personnel that would cause them to seek other employment. At best, the Army has determined and the investigative staff has verified, Fort Drum would be a second choice location from the standpoint of retaining and recruiting trained personnel in the skills needed. It is essential to the operations of the ARFFAC and the missions of its supported units that relocation to Syracuse take place as soon as possible. Equally important, maintaining the operation at LeRoy where operational conditions are unsafe and unsatisfactory carries with it the risk of serious accidents that can be avoided by timely action to move the operation to Syracuse. Approval of the committee to execute this move without further delay is urgently recommended.

Mr. SIKES. Thank you, General Mohr, and we thank the supporting witnesses for your information to the committee this morning.

WEDNESDAY, SEPTEMBER 22, 1976.

FORT INDIANTOWN GAP

WITNESS

MAJ. GEN. W. R. WRAY, ASSISTANT CHIEF OF ENGINEERS, HEADQUARTERS, DEPARTMENT OF THE ARMY

OPENING STATEMENT OF THE CHAIRMAN

Mr. SIKES. General Wray, we have asked you to come here to discuss the future of Fort Indiantown Gap. The Department of the Army has submitted to this committee and to others an information sheet in which they state that in their need to reduce nonessential overhead support personnel and costs, they are considering the possible realinement of Fort Indiantown Gap. That would mean possible reduction in activities.

The primary mission of Indiantown Gap is to provide base operations support for units and reserve component training facilities. The currently authorized strength is 191 military and 864 civilian jobs. This is an important installation which has served in a very responsible and helpful way in support of training programs for many years. Of course there is a great deal of concern on the part of the local citizenry and their representative in the Congress about the future of Fort Indiantown Gap.

This committee is also very much interested.

Mr. Murtha has expressed particular concern. He is here and will undoubtedly have some questions he will want to ask.

Do you have any statement that you wish to make at this time which would be indicative of the present outlook for Indiantown Gap?

General WRAY. Yes, sir; I do have a statement.

Mr. SIKES. Will you proceed?

General WRAY. I will try to be as brief as possible.

Mr. SIKES. Go right ahead.

STATEMENT OF ASSISTANT CHIEF OF ENGINEERS

General WRAY. As you will recall, on April 1, the Army announced 18 Army installations were being studied for possible realinement of activities to reduce nonessential overhead support personnel and costs connected with our base structure. Prior to that announcement, preliminary evaluation had indicated that Fort Indiantown Gap should be among those installations to be reviewed for possible realinement. It was selected for study because it is a small, single mission post with a high per capita operating cost.

The installation is currently leased by the Army from the Commonwealth of Pennsylvania and is used mainly to support Reserve com-

ponent training activities. The current strength is approximately 222 military and 664 permanent civilians.

That is a slight change from the initial announcement, the authorized strength at that time.

The key activities there are the Headquarters, Pennsylvania National Guard, the U.S. Army Readiness Group, and the U.S. Army garrison.

The principal alternatives we are studying——

STUDY ONGOING

Mr. SIKES. You say "studying." Does that mean you haven't reached a decision?

General WRAY. That is correct, we are still studying.

Mr. SIKES. When do you expect to reach a decision?

General WRAY. A final decision probably will not be reached before about March 1977, sir.

Mr. SIKES. Does that mean you have reached a tentative decision?

General WRAY. No, sir; it does not.

Mr. SIKES. All right, go ahead.

ALTERNATIVES

General WRAY. The alternatives that we are studying basically are the following:

1. Terminating Army occupancy, except for the Reserve Readiness Group, in fiscal year 1977. Most of the other activities would be relocated.

2. Retaining the installation in semiactive status while continuing Reserve support. Other activities would be relocated.

3. Maintaining the status quo.

If I could just elaborate a little bit on these alternatives.

The first alternative would reduce the Active Army presence at Indiantown Gap to the Reserve Readiness Group, a maintenance support activity, and certain others totaling some 60 military and 75 civilians. Other personnel associated with area support of the Reserve Components—that is supply, pay, things of that sort—would be relocated to and would operate from a large Active Army installation such as Fort Meade. Indiantown Gap would be returned to the Commonwealth of Pennsylvania and the Army would reimburse the Commonwealth for its share of the reduced base support costs. Since the Commonwealth would assume the responsibility for operating and maintaining the installation, it should be expected that a large percentage of the personnel now engaged in base support would be retained to do the same type work, but for a different employer.

Mr. SIKES. What does that mean?

General WRAY. Sir, at the present time we are using certain buildings, and we will continue to use those buildings. We maintain the buildings at the present time with an in-house force. If we were to turn the installation back to the Pennsylvania National Guard, they would maintain the buildings, but we in turn would reimburse them for the maintenance costs. The Guard would have somebody do that work, and I would suspect that it in all probability they would be the

same people who work there now. But since we are talking about a lesser number of people to be supported, obviously there would be lesser people required.

Mr. SIKES. All right, go ahead.

General WRAY. The second alternative, that of retaining Fort Indiantown Gap in a semiactive status, would involve the active Army's maintaining a considerably larger presence there, including a limited caretaker force. In other words, we would not turn the installation back to the Commonwealth. We would have to maintain a force necessary to maintain the roads, the buildings, the utilities.

Although the third alternative, retaining the status quo, would involve no major change in the number of personnel engaged in the various activities, we would expect to tighten our belts a little further to decrease costs wherever possible. In addition, a large number of the personnel might well be contractor employees rather than direct government hire since the ever decreasing personnel ceilings imposed on us will very likely require contracting out the base operations support. This may well be desirable, or necessary, in any alternatives where the Army retains control of the installation.

SCHEDULE

The initial study of the alternatives and a draft environmental impact statement are being prepared by the U.S. Army Forces Command and are due to be submitted to Department of Army within the next week or two.

Under the previous schedule they were due to have that in to us by now. They have been delayed in preparing it. They expect now to submit it to us within the next week or two. After review and validation of data, both the study and the impact statement will be returned to FORSCOM for corrections and resubmission.

This requirement for corrections and resubmission is based on past experiences that we never get a study that we are perfectly happy with on the first submission, and before the draft environmental impact statement is distributed to the Council on Environmental Quality for public review and comment, we certainly want to make sure that it conforms to our own desires. We expect this would take about 6 weeks to return and correct all of the material. Then, when we have a satisfactory product, we will file the draft environmental impact statement with the Council on Environmental Quality, at which time copies will be made available to all interested parties for review and comment. There will be a 45-day period to provide the public and governmental agencies an opportunity to comment on the statement and for the Army to hold public hearings on it. Substantive comments on the draft environmental impact statement will be evaluated and the results included in the final impact statement. We would expect this to be completed about February 1977.

We will review the final impact statement at headquarters, Department of the Army, validate any changes which occur and when corrected we will file it with the CEQ. After the prescribed waiting period of 30 additional days, a final decision will be made on the action to be taken.

I would not expect a final decision regarding Fort Indiantown Gap before March 1977.

Mr. SIKES. Thank you very much for your statement, General.

We will be back shortly.

[Short recess.]

Mr. SIKES. The committee will come to order.

Mr. Murtha?

IMPORTANCE AND IMPACT FOR PENNSYLVANIA

Mr. MURTHA. General, I asked the chairman to set up a meeting, and I know the preparation for it has been hurried on your part, but my great concern is we have lost so much in Pennsylvania you would think we had fought on the other side in the Civil War.

Mr. SIKES. Just a moment, please.

Mr. MURTHA. We have just lost Frankford Arsenal, which we realize is a result of your efforts to improve management, but now there is a possibility of reductions at Indiantown Gap, our only base in the East, or in Pennsylvania really, which is of tremendous importance to our National Guard and Reserve. It is utilized extensively as you know. I just want to talk a little bit about what we have spent there. I know it has been $4 million or $5 million on the aviation flight facility. I am glad to see that we are not going to abandon it completely. It is just a matter of working out what is the best deal, and the best deal I would hope is that the National Guard or the State will be funded with enough money so that they will be able to continue to operate the facility without a reduction in force.

Do you have any idea what is going to happen there?

We just got a tank trail approved with your help. We got improvements and modernization. The facility is in excellent shape.

Do you have any idea what is going to happen, what I can look forward to and what we can do to help influence the Army in its decisions?

FUNCTIONS

General WRAY. I think our basic effort, our basic thrust, would be to hope that all of the training that goes on there, the Reserve Component training and so forth, would continue to be done there. Of course, as you know, the Guard has something on the order of 500 people there.

We have the readiness group that is there; it is going to stay in any case now. Our initial thoughts were that it should be moved. They have got a new building that was built for them in the last couple of years. There is no thought of moving them.

Mr. MURTHA. The readiness group will stay. You are talking about 60 Army personnel and 75 civilians.

General WRAY. That is somewhat more than the readiness group. The readiness group has something like 57 officers and 22 civilians at this time. There is an Army maintenance support activity that we would envision would stay there because it maintains the equipment and so forth. It would stay there, and there are a couple of smaller activities. There is an Explosive Ordnance Detachment that would probably stay there, and it is the total of those people that I say would

be about 60 military and 75 civilian. That, as we see it, would be the smallest group that we would leave there under any of the alternatives.

Now we have a group of people who provide area support for the Reserves in terms of pay, supply, and other things of this sort in this garrison. That involves several hundred people. Well, the more people you have there, the greater the base support required. The idea is that if economies could be made by moving those people to Fort Meade and reducing our presence at Indiantown Gap, perhaps the support requirements will decrease. That is about the only way that we can achieve economies, because if we simply talk about turning the installation back to the Guard so that they maintain it, and we reimburse them, we probably don't gain anything costwise. We might gain somewhat on personnel spaces that are a problem, but perhaps the Guard may have the same problem. It may be in the end the biggest thing that we can do, the best thing we can do, is to contract for a lot of the support we get now, to save the personnel spaces, but the people would still have to be employed by somebody, because the work is still there.

Just as an example, to support the roughly 1,000 people we have there, we have a communications detachment of approximately 35 people. We have a health services detachment of a dozen or so people. There are 40-some odd people in supply activities. You wouldn't need all of those for support it if it were a much smaller detachment. As a matter of fact, what we would probably do, if we reduced to a smaller group is to put those people on CHAMPUS or contract medical support and contract the communications too.

I gave you three alternatives that start from the worst that could happen to the best from Pennsylvania's standpoint.

Mr. MURTHA. Let me make clear what you are talking about. The worst that could happen is that it would be reduced in strength. The base will stay there. The National Guard, of course, will maintain its headquarters there. There will be an arrangement from the Army to the National Guard or to the State of Pennsylvania, the Commonwealth of Pennsylvania, to reimburse them for certain expenses.

General WRAY. Yes, sir.

Mr. MURTHA. And then the National Guard will in a sense run the base.

General WRAY. And help us support the Reserve training there also. Where we have had people there in the summertime to support it, we would ask the Guard to do that, but they would be reimbursed by Federal funds for the cost.

Mr. MURTHA. The second possibility is it will remain just as it is, and an in-between possibility is that it will be in a semiactive status.

General WRAY. Some number of people that we might find desirable to move back to Fort Meade, say, for the area support of the supply and pay, because we have a data processing unit back in Fort Meade that might be able to take on a portion of this as an additional load, and make it somewhat more economical by not having the two groups separated.

POSSIBLE SAVINGS

Mr. MURTHA. How much money are we talking about saving here at the reduced No. 1 alternative level?

General WRAY. Sir, until that study comes in, I would almost hate to speculate, but I know we are not talking over a few million. We are not talking about 10, 20, or 50. It is a few, the possible savings. The studies just may not show a significant savings to warrant any change, and I certainly wouldn't want to prejudge that.

SUPPORT BY NATIONAL GUARD

On the other hand, I think I should be very candid to say that I think having a comparatively small installation there, we would be very pleased if the Guard would take over the general support of the complex. As it is, they support their own activities there now. We support our own, and perhaps by combining that support into one hat, maybe there are some economies.

Mr. MURTHA. General, I think the National Guard would be willing to do that as long as they could get adequate reimbursement.

General WRAY. Absolutely.

Mr. MURTHA. What could be done in order to start negotiations in that vein, if the Army is amenable to that?

General WRAY. We have begun that, sir. We contacted the Commonwealth some time ago, the Adjutant General who lives there, of course, and they have come back with some figures that were a bit high at first, it seemed to us. Since that time they have gone around and visited some of the other Guard installations, like Camp Shelby, Miss., and others that might be somewhat comparable. They have begun to restudy and refine their figures, and I am sure they have probably furnished Forces Command with another estimate now, but I am not aware of what the estimate is.

Mr. SIKES. General, I am going to ask Mr. Patten to continue this hearing. I have other meetings that I am committed to attend. I, personally, have a strong interest in Indiantown Gap. I strongly urge that a very careful effort be made to maintain it in its present status. We will want full information about this, as the study proceeds, on what the thinking of the Army is, and what your recommendations are.

General WRAY. Yes, sir, I understand.

Mr. PATTEN. Mr. Chairman, I must tell you I feel a little nostalgic about Indiantown Gap, because during World War II we had thousands of people that I met. I worked up at Kilmer as the advocate and we were servicing these fellows, so Indiantown Gap had a lot of our friends.

BASE CLOSURES

It also raises another question, and I suppose no two wars are alike, sometimes I wonder about getting rid of facilities. We are not going to grab up real estate as we did in 1939. There is no chance at all. Indiantown Gap is a different story and I don't think it is comparable to the growth that we experienced, being a part of the metropolitan New York area. In fact, right near Raritan Arsenal and Kilmer we have nine big office buildings going up in the coming year. They are over 18 stories, going up in Woodbridge Township, costing millions of dollars. Our growth is just beautiful, and our story of phasing out Raritan Arsenal and Kilmer which was tied in with Indiantown Gap has been just a beautiful thing economically. I hope your experience in other phaseouts comes close to ours. I can't make an analysis of

Indiantown Gap, how many jobs and how many assessments you would have if it was phased out altogether.

General WRAY. Let me be clear again. Of course the Readiness Group, as I said, will stay there. The Reserve training would stay there. We have no alternatives being studied that would eliminate that at all. The only question is simply that of the support for the mission activities, and how it can be rendered most economically. That is the crux of the whole thing.

Mr. PATTEN. This isn't in your district?

Mr. MURTHA. No.

Mr. PATTEN. One thing they promised us was an economic impact study, and the Army said they would help the communities economically with regard to this loss of jobs. A great deal of good work was done on that. It may have been lost to you. I go back to 1963, and I know they had a unit, they helped bring in industry and helped the towns make an adjustment, with good results.

General WRAY. I should mention that we didn't bring it up the other day that we do have an office, in the Office of the Secretary of Defense, that is concerned with economic adjustments. It does work with the communities, and in fact has been working with the city of Philadelphia on the Frankford case over the past year to see what could be done.

[Discussion off the record.]

Mr. MURTHA. Mr. Chairman, I appreciate General Wray coming over, and I appreciate the committee's support, and I am looking forward to your support.

General WRAY. I certainly will be glad to come over to your office or the committee at any time if you want to talk about it further. I will endeavor to keep you informed, as the milestones I spoke of are met. As of right now I would guess that the Draft Environmental Impact Statement that is to be filed would not be filed before mid-November. There is always the chance that at that point in the study people may decide that we are going to retain the status quo. If this is done, we would forget the environmental impact statement, because there would be no significant impact. We would go ahead and make the decision earlier, if that happens to be the case, but I wouldn't want to prejudge that.

Mr. MURTHA. Thank you, Mr. Chairman.

Mr. PATTEN. If there is nothing further, the committee is adjourned.

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