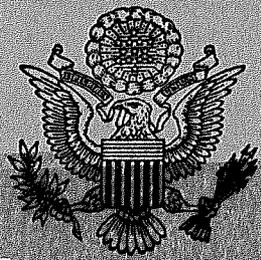


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1961

Annual Report



EXECUTIVE OFFICE OF THE PRESIDENT
of Civil and Defense Mobilization

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ANNUAL REPORT

of the

Office of Civil and Defense Mobilization

for

FISCAL YEAR 1961



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EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF CIVIL AND DEFENSE MOBILIZATION

LETTER OF TRANSMITTAL

The Honorable, The President of the United States.

The Honorable, The President of the Senate.

The Honorable, The Speaker of the House of Representatives.

I have the honor of transmitting to you the third and final Annual Report of the Office of Civil and Defense Mobilization. This report is submitted in accordance with section 406, Public Law 920, of the 81st Congress.

Respectfully,

A handwritten signature in cursive script, reading "Edward A. McDermott". The signature is written in dark ink and is positioned above the printed name and title.

EDWARD A. McDERMOTT, *Director,*
*Office of Emergency Planning.*¹

¹ Successor agency to the Office of Civil and Defense Mobilization.

CONTENTS

	Page
Letter of Transmittal.....	III
Preface.....	VIII
PART I—Financial Summary.....	1
PART II—Protection of Life and Property.....	5
Readiness Plans.....	5
Continuity of Government.....	7
Public Information.....	11
Vulnerability Reduction.....	12
National Shelter Policy.....	12
Dispersion.....	15
Industry Defense.....	16
Warning of Attack.....	17
Resource Evaluation.....	18
Communications.....	22
Maintenance of Law and Order.....	25
Disaster Services.....	27
Health Services.....	32
Protection from Weapons Effects.....	36
Radiological Defense Monitoring.....	36
Chemical and Biological Defense.....	40
Explosive Ordnance Reconnaissance.....	42
PART III—Mobilization and Management of Resources and Production.....	45
Development and Maintenance of Essential Resources.....	45
Federal Stockpiles.....	45
Development of Alternates or Substitutes for Imported Strategic and Critical Materials.....	50
Expansion of Production Capacity.....	50
National Security Investigations of Imports.....	51
Preparations for Mobilization and Management of Resources in an Emergency.....	54
Supply-Requirements Studies.....	54
Food and Water.....	55
Manpower.....	57
Fuel and Energy.....	58
Production and Materials.....	60
Construction and Housing.....	61
Economic Stabilization.....	62
Telecommunications.....	63
Transportation.....	65
PART IV—Supporting Functions.....	67
Research and Development.....	67
Radiological Defense.....	67
Shelter.....	70
Warning and Communications.....	71
Resource Management.....	72
Social Sciences.....	73
Policy and Advisory Research.....	73
Other Research.....	74

PART IV—Supporting Functions—Continued	Page
Training and Education.....	75
Schools and School Programs.....	75
Nongovernment Organizations.....	78
Federal Assistance.....	80
Tests and Exercises.....	87
PART V—Official Organizations and Advisory Groups.....	89
International Activities.....	89
The American National Red Cross.....	90
Civil Defense Advisory Council.....	91
Civil and Defense Mobilization Board.....	91
Advisory Committees.....	92
Regional Advisory Councils.....	92

APPENDIX

1. Executive Order 10902.....	93
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ILLUSTRATIONS

1. OCDM Organization Chart.....	3
2. OCDM Regions.....	4
3. A Typical Family Basement Fallout Shelter.....	13
4. The Attack Warning System (AWS).....	19
5. Prototype of NEAR Home Alarm Receiver.....	20
6. National Communications System (NACOM) No. 1.....	23
7. National Communications System (NACOM) No. 2.....	26
8. Municipal Government Departments and Functions, Normal Conditions.....	29
9. Municipal Government Departments and Functions, Disaster Conditions.....	30
10. Emergency Hospital Equipment Display.....	35
11. Growth of the Federal Radiological Fallout Monitoring Network.....	37
12. Growth of the State and Local Radiological Fallout Monitoring Network.....	38
13. Allocation of Funds for Instrument Procurement.....	41
14. Radiological Kit for High Schools.....	76

TABLES

1. Financial Summary for FY 1961.....	1
2. Emergency Assignments of Federal Departments and Agencies.....	9
3. Investigations under the Trade Agreements Extension Act of 1958 (Public Law 85-686).....	52
4. Federal Contributions for Supplies, Equipment, and Facilities.....	82
5. Federal Contributions for Civil Defense Personnel and Administrative Expenses, Jan. 1 through June 30, 1961.....	84
6. Federal Surplus Property Transferred to State and Local Governments for Civil Defense Purposes.....	86

PREFACE

This report covers the period of July 1, 1960, through June 30, 1961. The report is in narrative summary form containing a minimum of statistical data. Greater statistical details are presented in the OCDM Annual Statistical Report available upon request.

FINANCIAL SUMMARY

Funds from regular appropriations available to OCDM during FY 1961 totaled more than \$66.2 million, including new appropriations of \$61,088,000. At the end of the year, OCDM had obligated more than \$62.7 million. More than \$3.5 million remained unobligated, as shown in table 1.

TABLE 1.—Financial summary for FY 1961

Appropriation title	Funds available ¹	Funds obligated	Unobligated balance
Salaries and Expenses.....	\$25, 376, 287	\$25, 183, 906	\$192, 381
Civil Defense and Defense Mobilization Functions of Federal Agencies..	6, 567, 000	6, 476, 943	90, 057
Federal Contributions:			
Materials and Facilities.....	10, 580, 329	10, 468, 294	112, 035
Personnel and Administrative....	5, 419, 671	3, 482, 757	1, 936, 914
Subtotal.....	16, 000, 000	13, 951, 051	2, 048, 949
Emergency Supplies and Equipment..	9, 175, 000	9, 121, 410	53, 590
Research and Development.....	6, 813, 681	5, 749, 011	² 1, 064, 670
Construction of Facilities.....	2, 295, 031	2, 237, 688	57, 343
Total.....	66, 226, 999	62, 720, 009	3, 506, 990

¹ Includes reimbursements and recoveries.

² To be obligated early in fiscal year 1962, primarily for projects on prototype fallout shelter models and shelter availability surveys.

In addition to the regular appropriation funds shown in table 1, OCDM had appropriated funds for use in natural disaster aid under Public Law 875, as follows:

Appropriated through FY 1961.....	\$115, 300, 000
Obligated through FY 1960.....	101, 842, 041
Unobligated in FY 1961.....	13, 457, 959
Recovery from prior obligations.....	7, 702, 699
Available for FY 1961.....	21, 160, 658
Obligated in FY 1961.....	13, 043, 852
Unobligated balance, end of FY 1961.....	8, 116, 806

The national stockpile of strategic and critical materials accumulated according to the Stock Piling Act (Public Law 520, 79th Congress) was valued at \$5.7 billion at June 30, 1961, market prices. In

FY 1961, storage and handling costs totaled \$14.5 million and the net costs for rotation of materials subject to deterioration totaled \$10.6 million.

Major FY 1961 expenditures under the Defense Production Act program were for acquisition of DPA inventories by the General Services Administration. Cost of materials acquired totaled \$75 million, and income from sales totaled \$34 million. A net DPA program income of \$12 million resulted from the operations of the 5 agencies delegated to carry out DPA activities. FY 1961 was the first year during which DPA income from all sources exceeded expenses, a condition made possible principally by the prepayment of a substantial loan to the Office of Defense Lending in the Treasury Department.

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF CIVIL AND DEFENSE MOBILIZATION

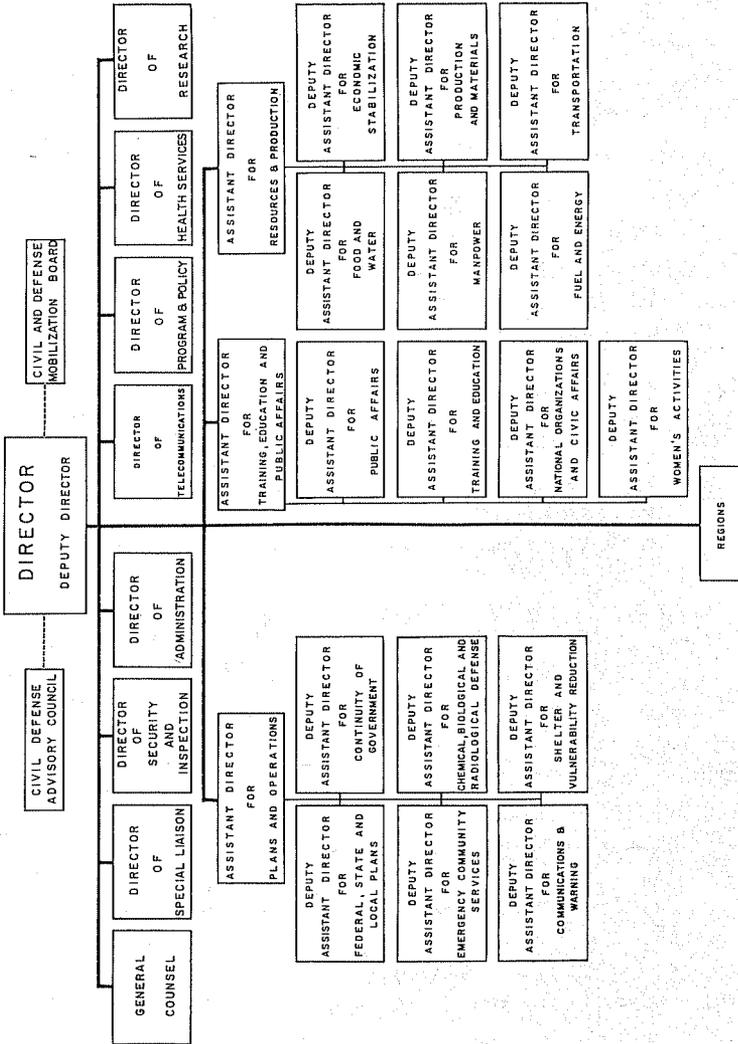


Figure 1.—OCDM organization chart.

APPROVED BY *[Signature]*

PROTECTION OF LIFE AND PROPERTY

READINESS PLANS

Throughout FY 1961, OCDM continued to carry out its functions for the protection of life and property as outlined in Part V of the *National Plan for Civil Defense and Defense Mobilization*. Basic to carrying out these functions was the continued preparation, maintenance, improvement, and implementation of civil defense and defense mobilization plans at all levels of government.

Federal Plans.—The National Plan has been the guiding instrument for planning at all levels of government, industry, families, and individuals. Publication of *Federal Emergency Plans and Procedures* (Annex 6) and *Emergency Economic Stabilization* (Annex 27) marked the completion of all annexes to the National Plan. Work was continued on many appendixes to these annexes. Of the 10 published appendixes, the following 6 were published during FY 1961.

Procedures for Warning Points (NP-13-1)

Frequency Allocation Plan for the Radio Amateur Civil Emergency Service (RACES) (NP-15-1)

Preparation for Explosive Ordnance Reconnaissance (NP-22-1)

Health Manpower (NP-18-1)

Radiological Defense Requirements for Monitoring Stations and Personnel (NP-23-1)

Guidance on Priority Emergency Use of Resources (NP-25-1)

OCDM continued to maintain two principal operating plans for mobilization readiness: (1) Plan C to improve readiness for general war and for use in limited war involving United States military action overseas with increased threat of attack on continental United States, and (2) Plan D-Minus for use in the event of devastating attack directly upon the United States.

About one-half of the work in up-dating and introducing a new concept of Plan C was complete at the end of FY 1961. However, revision and refinement of the plan have been accelerated and it could be placed in effect at short notice. Most of the implementing documents for Plan D-Minus were complete by the end of FY 1961. Documents also were under development to implement a recent addition to the plan concerning Federal departments and agencies. Regional plans for implementing Plan C and Plan D-Minus were under constant review and analysis.

OCDM has sought to determine the current status of readiness plans of each Federal agency, to identify problems deterring readiness meas-

ures, and to schedule accomplishment of additional readiness measures found necessary. To achieve these objectives OCDM has reviewed seven elements of Federal agency readiness status: (1) Protection of personnel, facilities, and records; (2) functions; (3) organization and staffing; (4) operational plans; (5) procedures; (6) documents; and (7) personnel assignments and training. Evaluated in terms of these elements, Federal departments and agencies have progressed substantially in developing plans for operational readiness to carry out emergency functions.

Further progress in readiness status of Federal agencies is needed to develop necessary measures for adequate emergency operations and to secure maximum coordination of each agency plan with plans of other Federal agencies and with State and local plans.

Favorable liaison relationships between OCDM and the Department of Defense (DOD), including liaison of OCDM Regional Offices with the 6 U.S. Zone of Interior Armies, and liaison between the 14 U.S. Army Reserve Corps and State and local governments have stimulated cooperative civilian and military planning at all levels. Military support plans for metropolitan areas and population centers increased from 45 to 121 during FY 1961. These plans were under continuing review to assure their compatibility with the National Plan. Planning was also underway for exchange of intelligence information between OCDM and DOD at various levels.

State and local plans.—All States, Puerto Rico, and the District of Columbia have operational survival plans. Guidance material was being developed during FY 1961 for revision of these plans, especially to include resource management.

On June 30, 1961, the number of counties having a civil defense director (full- or part-time), a plan published and State approved, an active training program, a staff appointed and on record with the State, and significant civil defense planning and organizational activity totaled 738 or 24 percent. Counties having a full- or part-time civil defense director and a plan published and State approved totaled 950 or 30 percent. Therefore, 1,688 counties or 54 percent have a full- or part-time director and a published State approved plan as a minimum. About 1,414 or 46 percent of the counties had little or no civil defense activity.

Municipal governments substantially increased their nonmilitary defense planning and staffing. Much of this increased activity was attributed to Public Law 85-606, which made Federal funds available to State and local governments on January 1, 1961, for personnel and administrative expenses. (See *Federal Assistance*.)

CONTINUITY OF GOVERNMENT

The Continuity of Government Program is committed to development of nonmilitary defenses within the framework of Federal, State, and local governments. It is designed to preserve governmental authority, leadership, and structure by strengthening governmental emergency operational capability. Action in this program has progressed on four fronts:

Automatic lines of succession for key officials.—Departments and agencies of the executive branch of the Federal Government generally continued to maintain adequate emergency lines of succession. Present legislation is adequate for filling vacancies in the Senate and in the Federal judiciary branch. An amendment to the United States Constitution is needed to assure effective operation of the House of Representatives under nuclear attack conditions.

Forty-five States have adopted at least one of the legislative measures recommended by OCDM for assuring continuity of leadership in State and local governments. But only 7 States have adopted all the recommended legislation. Constitutional amendments dealing with continuity of government have been approved by 31 State legislatures. Electorates of 18 of these States have already ratified their constitutional amendment by large majority vote. In 4 States, additional legislation was pending at the end of FY 1961. OCDM has a contract with the University of Wisconsin School of Law to obtain legal opinion of the adequacy of legislation on leadership succession and records preservation laws in 15 selected States.

Preservation of records.—Federal agencies continued to maintain and update their essential records at emergency operating centers. A study of types of records legally acceptable for identifying individuals was conducted by George Washington University under contract with the National Archives and Records Service of General Services Administration. This contract, financed by OCDM delegate agency funds, was extended through FY 1962. Initial data from this study were received in March 1961.

During FY 1961, 14 States proposed legislation for records management and preservation. The legislation became law in 4 States, and on June 30, 1961, was pending in 5 States. A sample records management and preservation ordinance for local governments was also developed.

Emergency operating centers.—All Federal agencies continued to maintain selected emergency relocation sites for their headquarters operations. Those sites scheduled for initial 30-day use were continuously manned by small administrative communications staffs and a

few program personnel. The sites of some agencies using their field offices for headquarters emergency relocation sites were fully staffed, but few agency headquarters emergency relocation sites were adequately protected against blast and fallout radiation.

Those Federal agencies having principal emergency responsibilities continued to maintain their assigned operating space at the OCDM Classified Location and had designated personnel prepared to operate for a 30-day period from that site, where many of these agencies had personnel stationed regularly. But the capability of the Government to operate during an emergency remained severely restricted by a shortage of protected operating space.

Federal agencies had designated 432 emergency relocation sites for field operations. These sites were generally outside probable vulnerable blast areas, but they had little or no protection from radioactive fallout.

OCDM has planned construction of protected underground control centers for each of its 8 regional offices. These centers will provide full fallout protection, a minimum of 30 pounds per square inch over-pressure blast protection, and an effective filter system for protection against radiation, chemical, and biological hazards. The centers, designed to provide operating space for 100 personnel of other agencies daily (300 during emergencies), will be the hub of all Federal regional nonmilitary emergency activities. In June 1961, construction of the first center, costing \$2.4 million, was started at Denton, Texas. Funds for the second center, to be located in the vicinity of Harvard, Massachusetts, were appropriated in the FY 1962 budget. Future budget requests will be made for the other six centers.

The Governors' Conference in 1960 and 1961 reaffirmed its 1959 resolution urging each State to provide a protected alternate seat for the State government. Seven States have protected emergency operating centers for their executive branches. Seven States have protected facilities under development, and the remaining 36 States have designated unprotected relocation sites. At the end of FY 1961, 9 counties and 8 cities had protected emergency operating centers and 23 counties and 13 cities were developing such facilities.

Use of government personnel and facilities.—On January 9, 1961, the President signed Executive Order 10902, *Providing for the Issuance of Emergency Preparedness Orders by the Director of the Office of Civil and Defense Mobilization.*¹ Table 2 shows the primary responsibilities and support roles of Federal departments and agencies and the status of emergency preparedness orders being issued under the Executive order.

¹ See Appendix 1.

TABLE 2.—Emergency assignments of Federal departments and agencies¹

Department or Agency	Assignment status	Food	Water	Housing	Health	Power	Fuel	Other essential commodities	Welfare	Manpower	Radel monitoring	CW, BW defense ²	Communications	Transportation	Survival in formation	Stabilization	Economic Warfare	Damage assessment	Law enforcement ³
Executive Departments:																			
Agriculture.....	A																		
Commerce.....	A																		
Defense.....	C																		
Health, Education, and Welfare.....	A																		
Interior.....	A																		
Justice.....	B																		
Labor.....	A																		
Post Office.....	A																		
State.....	A																		
Treasury.....	C																		
Independent Agencies:																			
Atomic Energy Commission.....	B																		
Civil Aeronautics Board.....	B																		
Export-Import Bank of Washington.....	B																		
Farm Credit Administration.....	B																		
Federal Aviation Agency.....	A																		
Federal Communications Commission.....	C																		
Federal Deposit Insurance Corporation.....	B																		
Federal Home Loan Bank Board.....	B																		
Federal Power Commission.....	B																		
Federal Reserve System.....	B																		
General Services Administration.....	B																		
Housing and Home Finance Agency.....	A																		
Interstate Commerce Commission.....	A																		
National Aeronautics and Space Administration.....	A																		
National Science Foundation.....	A																		
Railroad Retirement Board.....	B																		
Securities and Exchange Commission.....	A																		
Selective Service System.....	B																		
Small Business Administration.....	B																		
Tennessee Valley Authority.....	B																		
U.S. Civil Service Commission.....	A																		
U.S. Information Agency.....	A																		
Veterans' Administration.....	B																		
Veterans' Administration.....	A																		

Legend: P—Primary responsibility. S—Support responsibility. A—Emergency preparedness order issued. B—Emergency preparedness order pending approval. C—Emergency preparedness order in preparation.

¹ OCEM has primary responsibility for communications, transportation, stabilization, damage assessment, and radiological defense (radel) monitoring.

² DHEW has primary responsibility to develop and direct nationwide programs for the prevention, detection, and identification of human exposure to BW and CW agents, including that from food and drugs. USDA has similar responsibility in the area of animals, crops, or products thereof.

³ State and local governments have primary responsibility for maintaining law and order.

Each emergency preparedness order assigns current planning and preparedness activities but does not carry specific authority to act in an emergency. However, emergency plans and programs being developed are part of continuing activities of agencies which would presumably be responsible for execution of such programs in an emergency. Some agency operations under other Executive orders and statutes are closely related to planning and preparedness order assignments. These operations are consistent with the assignments which usually confirm operational functions.

Assignments to agencies in the Executive Office of the President are self-evident or classified for security reasons; e.g., assignments to the Bureau of the Budget, the White House Office, the Central Intelligence Agency, the National Security Council, and the Council of Economic Advisers. Other agencies not listed in table 2 will have no emergency preparedness assignments as functioning agencies. The OCDM Director by letter is requesting them to (1) plan a temporary suspension of those normal peacetime functions which would be impractical to perform during an immediate postattack period and (2) make their resources available for reassignment to emergency functions.

A system of nonmilitary defense readiness conditions corresponding to designated military readiness levels was established. This system provides for required scheduling of automatic defense actions at all levels of government in unison with phased military readiness conditions. Progress in implementing the system included:

1. Issuance of OCDM's Emergency Operations Order No. 3, *Automatic Readiness Actions, key OCDM officials*. This order defines automatic actions for each defense readiness condition and assigns the responsibility for performing them to key OCDM personnel.
2. OCDM extension of the system of defense readiness conditions to other Federal agencies having civil defense and defense mobilization functions and work on extending the system to State governments.

During FY 1961, most Federal departments and agencies of the executive branch developed and issued instructions and procedures for telephone alerting of personnel having emergency assignments. These departments and agencies each have personnel on continuous watch duty for receiving any notice of change in defense readiness conditions or warning. Most Federal departments and agencies have instructed their personnel on actions to take upon sounding of public warning signals; e.g., employee movement to relocation sites and care of dependents. Other departments and agencies were preparing such instructions.

State and local governments have assigned emergency functions to more than a million of their employees. Most city governments have recognized the necessity of using their manpower fully in performing emergency functions.

PUBLIC INFORMATION

A significant increase in public demand for civil preparedness information during FY 1961 reflected the growing anxiety generated by world tension. To meet this demand, OCDM produced and released more information for the Nation's newspapers, magazines, and radio and television stations than in any preceding year. Major emphasis of informational material was on fallout shelters for families, schools, industry, and varied special groups. Federal, State, and local levels provided intensified public information support for OCDM's Continuity of Government Program. This support contributed to the overwhelming approval of State constitutional amendments providing for standby emergency authority.

A total of 1,170 press releases and 250 articles prepared for magazines resulted in a record number of mail requests for copies of *The Family Fallout Shelter* booklet and other family emergency guidance publications. More than 5.6 million copies of the booklet, containing plans for five home shelters (see fig. 3), were distributed upon request during the year, bringing the total to 19 million copies since initial publication. Individual requests for civil defense information and fallout shelter plans totaled 75,000 during FY 1961.

Extensive information promotion gave national impact to the successful demonstration of the automatic indoor warning device, National Emergency Alarm Repeater (NEAR) System, at Charlotte, Michigan. Approximately 735,000 copies of a leaflet, *The NEAR System: Indoor Attack Warning*, one of 15 new publications issued in FY 1961, were distributed. OCDM's Rural Information Program reached into county media in every State. Photographs for newspaper and magazine articles were prepared for 282 requests.

Extensive radio, television, and motion picture programing brought civil emergency information and instructions to vast numbers of Americans throughout the year. Twelve kits (animated film, slides, and copy) were widely used by television stations. A new 13-week documentary/information television series, *Retrospect*, was requested by 170 stations with a potential audience of 110 million viewers. Produced by cooperation of OCDM and the Armstrong Circle Theater, a special fallout shelter presentation called *Briefing from Room 103* reached an audience of 26 million.

For radio, OCDM produced a series of two continuous, weekly network programs and a 15-minute musical presentation requested weekly

by over 2,500 stations, special announcement transcriptions, and quarter-hour announcement kits.

More than 1,800 prints of 10 new civil defense motion picture films were released during the year. One film, *Radiological Defense*, was requested for presentation by 230 television stations with nine million viewers. Nearly 3,000 new motion picture trailers on civil defense were being distributed. A series of 10 training films on home nursing for OCDM-American National Red Cross use are in production.

OCDM exhibits were shown at 179 locations with a total audience of 7.5 million persons, an increase of 25 percent over FY 1960. Greatest demand was for exhibits on family fallout shelter, but demand was also heavy for exhibits on home preparedness, rural civil defense, continuity of government, and industry defense. Millions of persons visited prototype shelter displays and obtained shelter booklets.

Specialized information distributed to professional audiences included 60,000 copies of the publication on *Fallout Shelter Surveys; Guide for Architects and Engineers* (14,000 to members of the American Institute of Architects and 46,000 to members of the American Society of Civil Engineers). *Personal Preparedness in the Nuclear Age*, a student manual and accompanying instructor guide for use in adult education, was also widely distributed. OCDM conducted 2,000 specialized briefings attended by 110,000 persons, among whom were government officials from Burma, Canada, Indonesia, Japan, Norway, and the Republic of the Philippines.

VULNERABILITY REDUCTION

National vulnerability reduction basically requires balanced action programs on the part of governments, families or individuals, and industry. Major means for reducing vulnerability are fallout shelters, hardened or dispersed facilities, controlled movement of people and materials, and adequate survival item stockpiles. This section of the report is limited primarily to fallout shelters, dispersion, and industry defense; other means of vulnerability reduction are discussed in other sections dealing with programs with which they are closely associated.

National Shelter Policy

The National Shelter Policy announced 3 years ago is based on the studied conclusion that fallout shelters would offer the most feasible protection for the greatest number of people. OCDM's actions to implement the five points of this policy included:

1. *Informing the public.*—A vigorous public information program was continued with emphasis on informing all persons of fallout

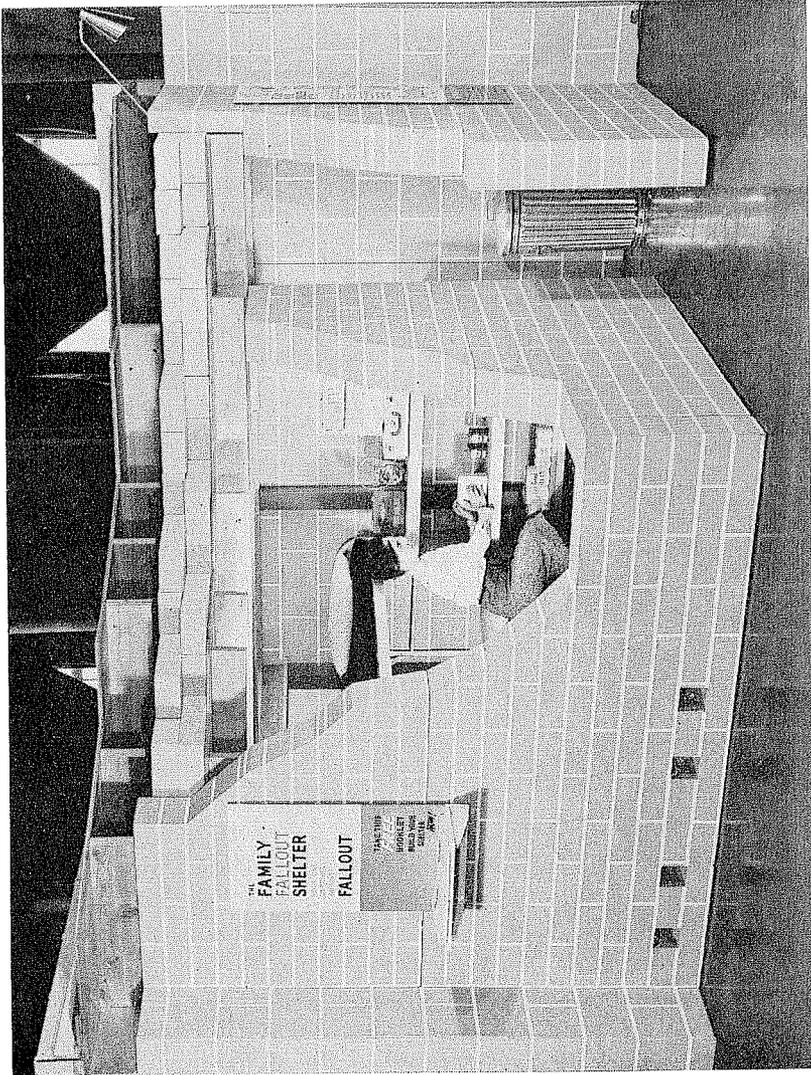


FIGURE 3.—A typical family basement fallout shelter.

danger and how to build and equip shelters to obtain maximum protection. (See *Public Information*.) Management officials, architects, and engineers were provided technical information nationwide by all available means including 36 workshops (9 conducted by OCDM, and 27 conducted by 9 universities under contract). A project with three universities was started to develop special curricula materials on shelter design and construction. These materials are to be disseminated for incorporation into courses of architecture and engineering to advance technical aspects of shelter concepts.

2. *Shelter surveys*.—OCDM continued to provide leadership and nationwide guidance in determining shelter capabilities of existing structures. Management personnel, architects, and engineers have been provided manuals to help them plan and conduct shelter surveys. From FY 1960 appropriations of approximately \$600,000, shelter surveys were launched for New York City, Los Angeles, Worcester, Tallahassee, mines in Missouri, and apartment buildings in Kansas City. An FY 1961 additional appropriation of \$702,600 was allocated for shelter surveys of 24 State capital cities. Of these surveys, 3 were completed, contracts were made for 15, and contracts were being negotiated for 6. An estimated additional \$500,000 will be needed to complete shelter surveys of 26 State capital cities. At the close of FY 1961, OCDM had plans to sponsor one shelter survey in each State to help train its personnel and develop its capability to conduct shelter survey programs needed within its political subdivisions.
3. *Shelter design*.—Leadership was continued in developing fallout shelter designs adaptable for new and existing buildings including homes, private buildings, and government structures. Designs for home fallout shelters suitable for most environments have been widely distributed with instructions showing how concrete, wood, steel, brick, and other materials can be used effectively in shelter construction. Designs and specifications have also been developed for family and 100-man shelters offering protection from blast effects as well as radioactive fallout.

Research was continued (see *Research and Development*) on types of shelter design for underground garages, churches, schools, hospitals, and apartment buildings. In addition, shelter designs and equipment best suited for various geographical areas were under investigation; e.g., a contract with Louisiana State University for developing shelter designs for coastal regions. The results of these research developments were being prepared for publication in manual form.

Through OCDM encouragement, industry has developed shelter designs. OCDM has reproduced and distributed pamphlets; e.g., *Fallout Shelters of Wood* by the National Lumber Manufacturers Association and *Clay Masonry Fallout Shelters* by Structural Clay Products Institute. Technical advice and guidance offered to private industry have helped 75 manufacturers meet OCDM standards for fallout shelter designs.

4. *Prototype shelter construction.*—A prototype shelter construction program was started in FY 1960 to provide public demonstration models and displays for stimulating shelter construction. Allocated for this program were \$2.5 million from FY 1960 and \$1,792,400 from FY 1961 appropriations. At the end of FY 1961, the status of this program was as follows: (1) Of 228 proposed family shelters, 135 were completed and 47 were being designed or constructed; (2) of 453 family-type shelters proposed for construction by high school vocational departments, 160 were completed and 293 were being designed or constructed; (3) of 76 proposed community shelters, 8 were complete and 51 were being designed or constructed.
5. *Shelters for Federal buildings.*—Beginning with FY 1960, a directive to all Federal departments and agencies has required them to include fallout shelter design and construction costs in their budget estimates for appropriate new Federal buildings. In addition, OCDM has encouraged shelter construction in existing Federal buildings. However, the Congress has generally disallowed budget requests for this purpose; e.g., a General Services Administration request for \$2 million in FY 1960 and a similar request in FY 1961.

OCDM continued to guide and assist Federal departments and agencies and State and local governments by developing policies, programs, and requirements for critical nonmilitary protective construction. During FY 1961, OCDM approved designs for 22 emergency control centers (12 in target and 10 outside target areas). Under the Federal financial assistance program, emergency control centers within 5 miles of a critical target area must provide at least 30 pounds per square inch blast protection in addition to fallout protection. At the other locations, only fallout protection is required.

Dispersion

Geographical dispersion of new industrial and governmental facilities is a recognized means of vulnerability reduction. Dispersion policy of the Federal Government is based on the 1956 amendment to the Defense Production Act and is supported by Defense Mobilization

Order I-19 of 1956 and Annex 11 to the National Plan. OCDM, responsible for coordinating Federal activities in applying geographical dispersion provisions, has delegated to the Area Development Office of the Department of Commerce primary responsibility for assisting Federal departments and agencies, industry, public and private organizations, individuals, and local dispersion committees in applying established dispersion criteria. The Department of Defense also has been delegated responsibility for assisting in dispersing key military and industrial facilities.

Application of dispersion policy continued to be plagued with limitations. Few facilities can be relocated outside vulnerable areas in peacetime without excessive costs and reduction in efficiency. Some dispersion has resulted from the Nation's economic growth, but continued growth of major metropolitan areas and the interdependence of the Nation's complex economy has neutralized most dispersion activity.

Industry Defense ²

According to the National Plan and as amplified in Annex 11, governments and private enterprise share responsibility for protection of essential facilities. Action by private industries, institutions, and organizations under government leadership is of paramount importance. During FY 1961, OCDM continued, with considerable success, to persuade industry to accept its share of this responsibility; e.g., many industrial establishments extended their industrial and natural disaster safety plans to include protection against effects of possible enemy attack.

In addition to helping State and local governments organize industry defense programs, OCDM continued to issue information and guidance material on: Effects of attack on industry by chemical, biological, and nuclear weapons; planning and organizing for self-help in plants; warning and communications systems for industrial plants; training plant protective services personnel; testing the plant emergency protective services; fallout shelters for employees; prevention of sabotage and espionage; industrial mutual aid associations; continuity of industrial mutual aid associations; continuity of industrial management; protection of records and planning for emergency repair restoration.

The United States Civil Defense Council, at its annual meeting, endorsed by resolution a program for industry defense and survival. The program recommends procedures for State and local civil defense directors in establishing, operating, and maintaining an industrial

² See also *Nongovernment Organizations*.

and facility emergency preparedness organization. During FY 1961, industrial leaders attended five OCDM Staff College courses on industry defense and mobilization. Featured at these courses were guest lecturers from industry experienced in developing disaster preparedness programs.

Three national organizations promoted emergency planning by business and industry: (1) The Chamber of Commerce of the United States adopted a new policy statement urging active support of its members and approving an emergency preparedness education program promulgated by its National Defense Department and supported by publications without cost to OCDM; (2) the National Association of Manufacturers provided free space for an industry defense exhibit at its annual meeting and its National Defense Committee is providing leadership for further emergency planning in industry; and (3) the 1961 National Safety Congress, as a result of liaison with the National Safety Council, arranged for two half-day sessions on emergency planning in industry.

Of approximately 1,500 national industrial trade associations and professional organizations encouraged to assist in promoting industry defense, many units sponsored special training conferences. OCDM assisted in preparing programs for these conferences and arranged for guest lecturers who promoted the technique of "industry talking to industry." Local chamber of commerce organizations took a more positive attitude toward industry defense; e.g., promotion of industrial disaster preparedness in New York, organization of mutual aid associations in St. Louis, and creation of an industrial mobilization unit in Los Angeles.

More than 100 mutual aid associations are organized and operating throughout the country. They are voluntary organizations of industry officials who represent facilities in a particular area and have agreed to assist each other with facilities, equipment, and manpower as needed in time of disaster. Many industries distributed OCDM survival literature to train their employees in family and home protection.

Other Federal agencies in their daily contacts with industry cooperated in the industry defense program.

WARNING OF ATTACK

The National Warning System (NAWAS) consists of 7 OCDM Warning Centers (see fig. 4) at major North American Air Defense (NORAD) installations, 46 Federal Agency Warning Points, and 403 other Warning Points serving principal cities. Through this network of approximately 35,000 miles of leased telephone circuits, warn-

ings and supplemental data can be sent to all 449 Warning Points simultaneously and almost instantly. An average of 8 minutes is then required to relay the warning to approximately 5,000 local warning points.

During FY 1961, NAWAS was expanded by addition of 72 Warning Points (12 at U.S. Coast Guard installations, 8 at Federal agencies, and 52 at cities). Coast Guard Warning Points are to serve ships in coastal waters and inland waterways. In conformance with Annex 13, part V, to the National Plan, OCDM provides warning and warning information to Federal agencies which request this service and install and maintain warning systems.

OCDM continued to use NAWAS for disseminating severe weather advisory and warning messages from the U.S. Weather Bureau and from the Seismic Seawave Warning Service of the Coast and Geodetic Survey. The system was also used to assist the U.S. Air Force in search and rescue missions for aircraft reported missing.

State and local warning plans were reviewed during FY 1961, especially to reevaluate outdoor warning coverage of metropolitan areas. A Federally-financed outdoor warning system for Washington, D.C., was completed and is fully operational. The system uses 227 sirens which provide more than adequate coverage for a radius of 20 miles from the center of the city. The sirens are controlled by wireline circuits from the OCDM Region 2 Office and the Classified Location. Thirty-three of the sirens also can be controlled by radio and are gasoline powered. A wireline circuit backed up by a radio network provides communications to neighboring military bases and key Virginia and Maryland emergency control centers to facilitate coordination of emergency operations.

The National Emergency Alarm Repeater (NEAR) System has been developed for indoor warnings where outdoor warning systems are generally inadequate. The NEAR system was successfully demonstrated to the public, power company officials, and Government representatives at Charlotte, Mich., in October 1960. More than 2,000 home receivers (see fig. 5) in Charlotte and in other Michigan test areas were activated. Experience from this test will be used to extend the NEAR System throughout Michigan and the Nation. The chief problem is the financing of generating equipment estimated to cost from \$40 to \$60 million. In addition, plug-in alarms will need to be purchased for homes and offices to make the system operative.

RESOURCE EVALUATION

Resource evaluation is a process for determining the effects of enemy attack (hypothetical and real) upon human and material resources of the Nation. Ascertaining the quantity and establishing the location

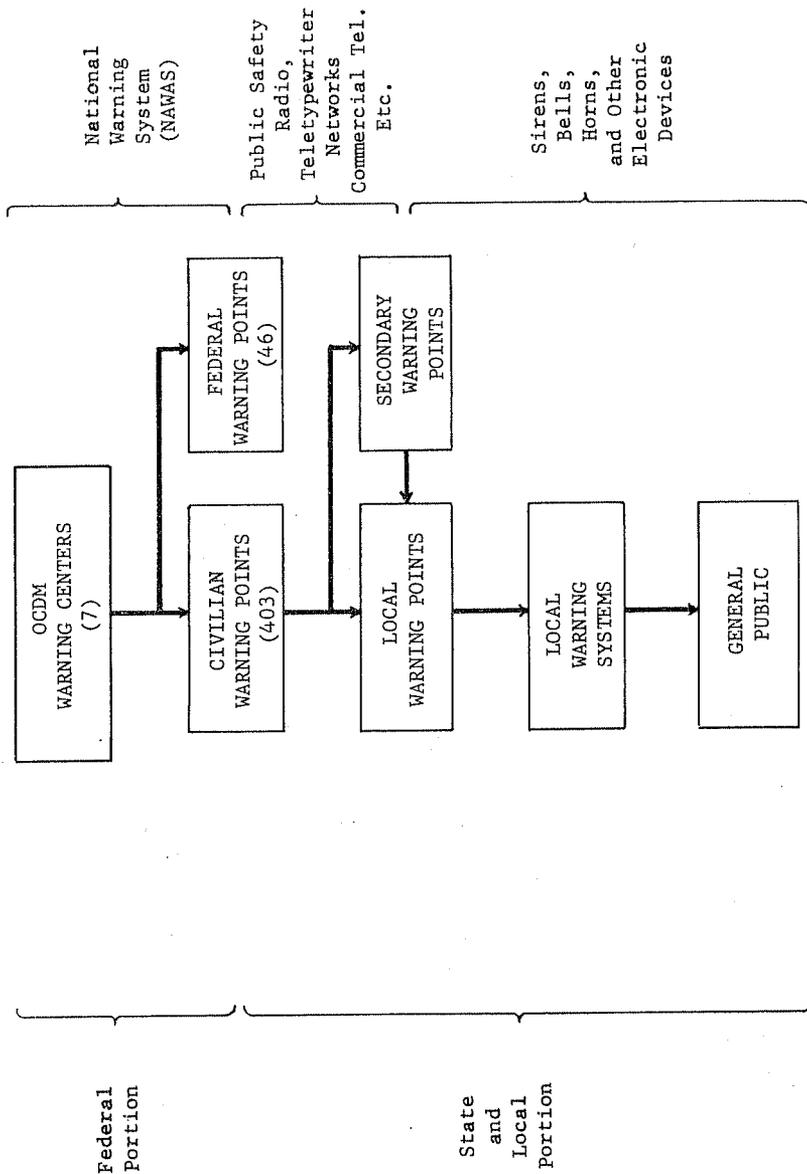


Figure 4.—The Attack Warning System (AWS).

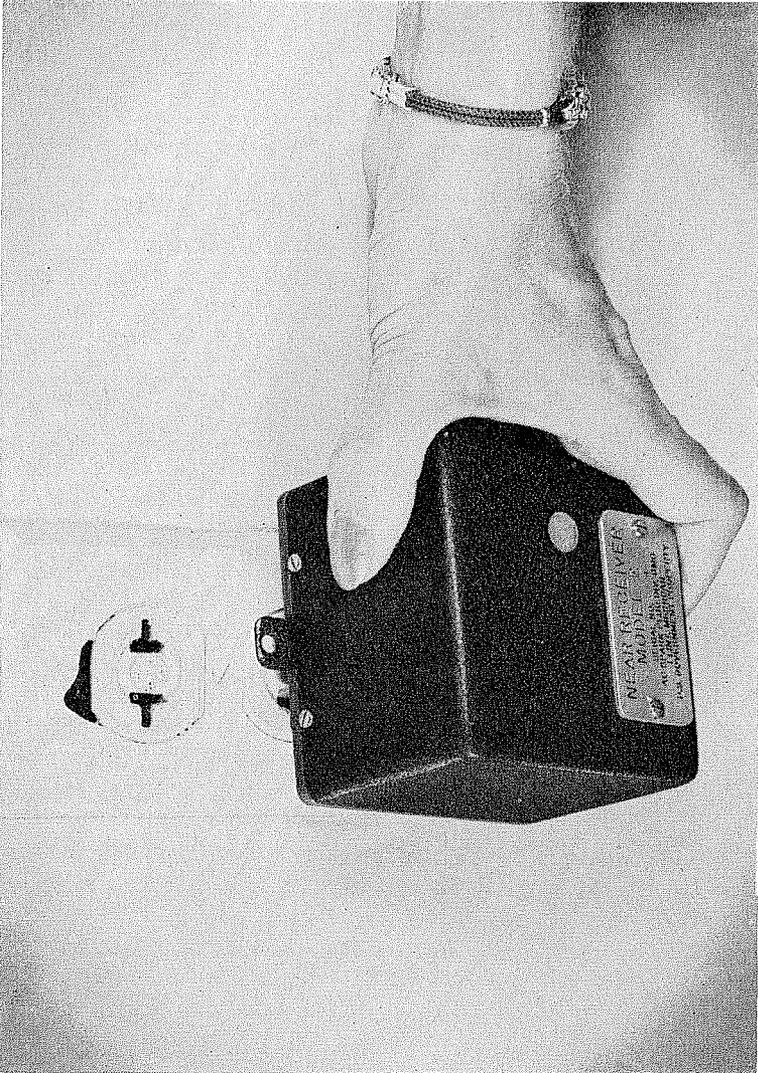


Figure 5—Prototype of NEAR home alarm receiver.

of available resources are necessary requirements for intelligent decisions on (a) preattack planning and preparedness and (b) postattack operations.

OCDM continued to operate the National Resource Evaluation Center (NREC) staffed by personnel from 18 Federal departments or agencies and containing data on the most important resources throughout the United States. These data were reasonably current for approximately 550,000 separate locations grouped in 113 resource categories. Normal statistical programs of cooperating agencies were used to keep data current, but more data were needed, especially on inventories. Both electronic computer and manual methods of resource evaluation have been developed.

Electronic computer resource evaluation.—Need for information on probable effects of nuclear attack on many types of resources and the massive data processing required to estimate this information have led to intensive use of the electronic computer method of evaluating resources at NREC. Basic machine programs have therefore been designed to give detailed shortcut estimates of fallout intensities, blast effects, and fire probability under designated attack patterns. In addition, substantial progress has been made in evaluating indirect effects of weapons.

New data transmission equipment installed at NREC during FY 1961 greatly improved capability of disseminating casualty, damage, and resource information to the relocation sites of Federal departments and agencies. Readiness of NREC and its back-up facilities to function in an emergency and to improve new procedures was tested under a continuing program of special and regular exercises.

The U.S. Air Force is responsible for procuring an automatic system for surveillance of nuclear attack detonations (NUDET). It will be designed to monitor nuclear detonations throughout the Nation by recording and reporting the location of ground zero, weapon yield, and height and time of the explosion. These data will be available to OCDM and DOD. The schedule of funds and contracts for this system prospectively indicates that it will be in operation by the end of FY 1963.

A study of attack hazards completed by OCDM and DOD in FY 1960 provides estimates of blast and fallout hazards at individual points of interest throughout the United States. These estimates have been used nationwide and for many planning purposes in executive departments and agencies. A second study of this type initiated in FY 1961 will be completed in FY 1962.

A NREC computer technique has been developed to estimate survival-item surpluses or deficits by States and regions at five post-attack intervals. Data on inventory, productive capacity, and re-

quirements of many survival items are maintained on magnetic tape recordings. Additional data from this nature are being obtained from Federal departments and agencies and from a research contractor, CEIR (formerly Corporation for Economic and Industrial Research), Inc.

Manual resource evaluation.—During FY 1961, OCDM accelerated efforts to train personnel at all government levels in manual resource evaluation. OCDM Staff College, Western Instructor Training Center, Eastern Instructor Training Center, and Regional Offices cooperated in this effort. Special materials prepared and distributed for this purpose were:

1. *Nuclear Weapons—Phenomena and Characteristics.*—More than 10,000 copies of this publication were distributed to civil defense personnel to give them a comprehensive summary and specific quantitative data on nuclear weapons in intelligible form without complex technical and mathematical material.
2. *Maps: Description and Uses for Civil Defense Planning and Operational Purposes.*—Approximately 10,000 copies of this publication were distributed to provide civil defense personnel necessary information on availability and use of maps for resource evaluation.
3. *Manual Damage Estimation.*—About 2,500 copies were distributed to provide information on methods for locating preattack resources in developing an integrated manual damage assessment system.

COMMUNICATIONS ³

OCDM's primary system of operational communications remained the National Communications System No. 1 (NACOM 1). (See fig. 6.) It consists of about 22,000 miles of leased-wire facilities—full-time operational private line telephone and teletypewriter services—connecting OCDM's relocation site with Operational Headquarters in Battle Creek and its eight Regional Offices. This communication system also extends to State civil defense offices by means of engineered military circuits (EMC), which are tested frequently and used during natural disasters and test exercises. Plans have been made to convert these circuits to full-time operation when funds become available.

Transmission speed of all NACOM 1 circuits was increased from 60 to 75 words per minute, and some circuits are capable of handling 100 words per minute. Cryptographic facilities were available at all OCDM offices. National and Operational Headquarters and the

³ For additional communications information, see *Telecommunications*.

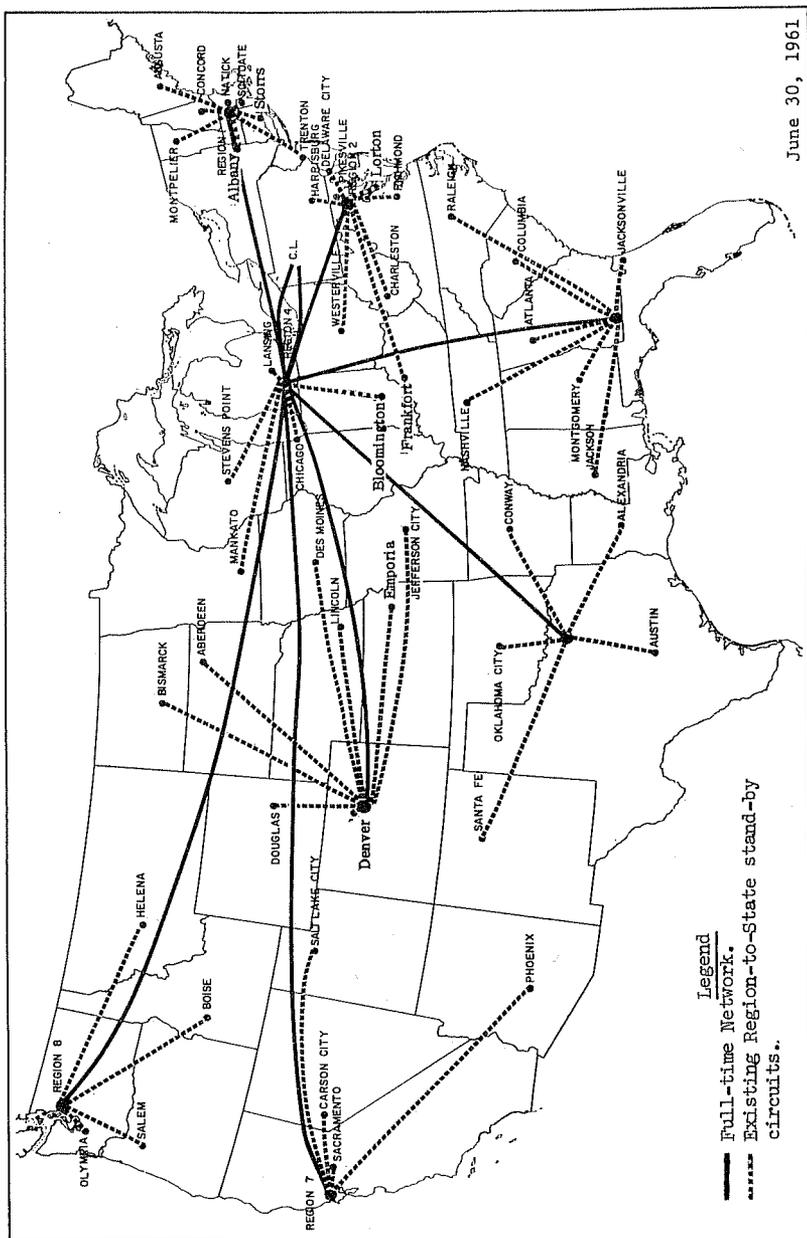


Figure 6.—National Communications System (NACOM) No. 1.

Classified Location used automatic equipment for this purpose, and the Regional Offices used semiautomatic gear. Voluntary agreements were made to establish cryptographic service between the OCDM Regional Office of two regions and the adjacent Continental Army Headquarters. To accommodate transmission of National Resource Evaluation Center (NREC) data, NACOM 1 circuits connecting Operational Headquarters, Classified Location, and OCDM Region 1 and 5 Offices were modified to handle such transmissions.

EMC circuits are also available for activation to provide two alternate routings by which OCDM Regions 5 and 6 would in turn control communications if higher headquarters should become inoperable. An Interagency Communications System (ICS) connects relocation sites in the Federal arc and interconnects with NACOM 1.

Normal administrative telephone service is provided between OCDM Operational Headquarters and its regional offices via NACOM 1. Leased code lines connect OCDM National Headquarters, Operational Headquarters, and Classified Location for this purpose.

Additional funds were requested to remedy a vulnerable feature of NACOM 1; i.e., establishment of alternate direct communication routes between Classified Location and OCDM regional offices. All such communications now must be made via Operational Headquarters.

At the end of FY 1961, National Communications System No. 2 (NACOM 2) was operational at six OCDM Regional Offices, Operational Headquarters, Classified Location, and one State. (See fig. 7.) This system is a radio network being established to back up NACOM 1. Extension of this network to other OCDM regional offices and 20 State and Territorial installations, including interim terminals of reasonable reliability in Hawaii and Puerto Rico, is scheduled for FY 1962. Extension to other State installations depends upon availability of funds. The network is also intended eventually to provide for communications with Alaska, Panama Canal Zone, American Samoa, and the Virgin Islands.

The Radio Amateur Civil Emergency Services (RACES) continued to expand. Established in 1952, RACES enables amateur radio operators to supplement State and local communications systems in emergencies. At the end of FY 1961, the RACES program operated in every State and included 35,000 amateur operators and 1,440 OCDM approved plans.

Since 1952, Federal matching funds averaging \$5 million annually have been made available to State and local governments for communications facilities, including funds for RACES equipment. Technical improvements in communications methods and obsolescence of equipment indicate a need for continued expenditure at this annual rate.

During FY 1961, the President ordered the implementation of a previously prepared OCDM plan for integrating all nonmilitary Federal communications into one Federal Telecommunications System (FTS). General Services Administration was designated to engineer and operate FTS under policy control and guidance of OCDM. The system is being established for peacetime use and should provide for reasonably secure wartime communications.

Under Executive Order 10312, CONELRAD (Control of Electromagnetic Radiations) remained in effect. This system provides for radio communications to the public during an emergency without providing navigational aid to attacking aircraft. By intermittently broadcasting on frequencies of 640 and 1240 kilocycles, about 1,300 AM radio stations are prepared to operate while all other broadcasting stations remain silent. Through OCDM publicity and annual Operation Alert, the public has become familiar with the use of CONELRAD.

OCDM continued to provide program guidance to State and local governments in the use of CONELRAD. The Commander of North American Air Defense Command (NORAD) is responsible for ordering and terminating CONELRAD alert. Continued need for CONELRAD is frequently reassessed by the Department of Defense, and technical operating procedures are determined by the Federal Communications Commission.

OCDM represented the United States on the Civil Communications Planning Committee (CCPC) of the North Atlantic Treaty Organization (NATO). (See *International Activities*.) This included preparation and coordination of the position of the United States on CCPC matters and attendance at two working groups and two plenary sessions of the committee.

MAINTENANCE OF LAW AND ORDER

During FY 1961, OCDM continued to assist and guide State and local governments in developing their capability to maintain law and order under emergency conditions requiring actions uncommon to normal police activities; e.g., control of mass movement; prevention and control of panic, mob action, crimes of violence, looting, and vandalism; maintenance of order in reception areas; and protection of vital installations and supplies.

OCDM achieved considerable progress by working through Federal, State, and local law enforcement officers and the OCDM Police Committee. On this committee are representatives of law enforcement authorities from all levels of government, members of law enforcement organizations, and personnel from the Federal Bureau of Investiga-

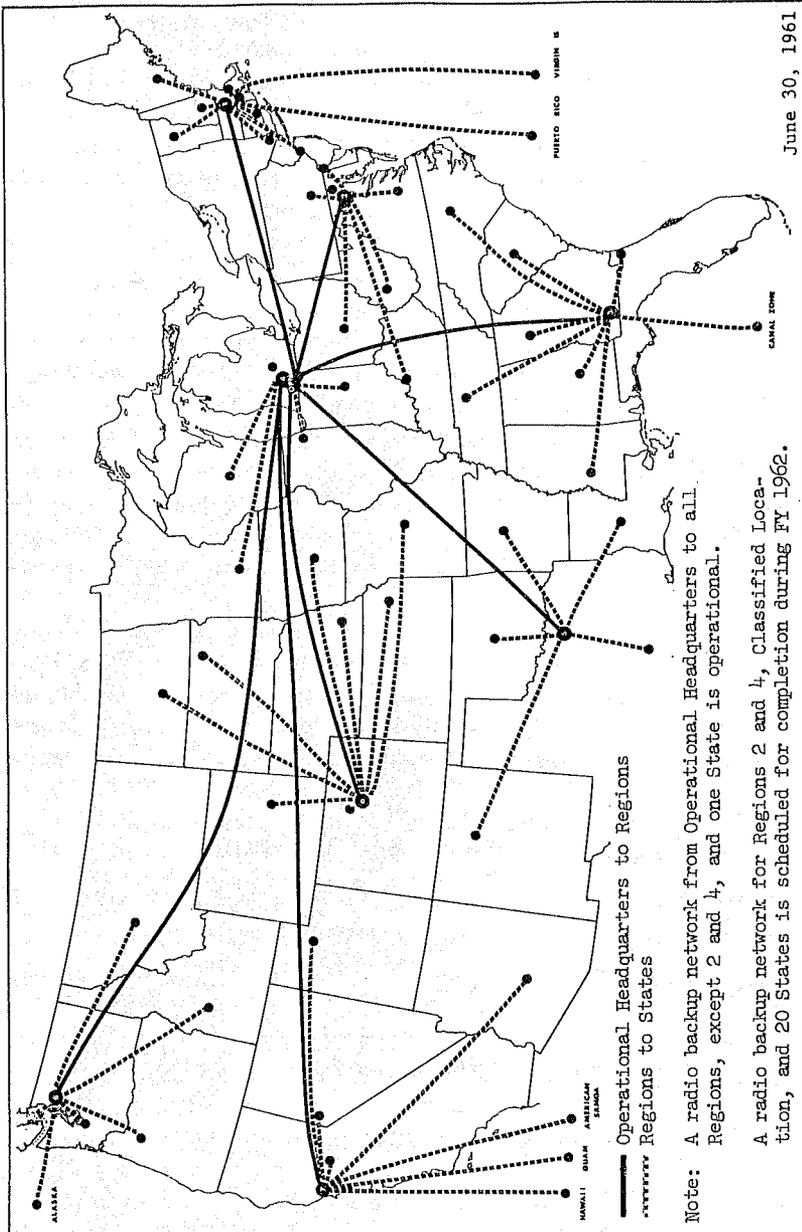


FIGURE 7.—National Communications System (NACOM) No. 2.

tion and the Office of the Provost Marshal General of the Department of Defense. Principal activities included:

1. Developing and planning regional police service seminars for FY 1962, to acquaint law enforcement officers more fully with their emergency responsibilities.
2. Promoting police training in radiological monitoring and reporting.
3. Promoting police training in explosive ordnance reconnaissance. The training is conducted by explosive ordnance reconnaissance disposal personnel of the six Zone of the Interior Army Commands.
4. Developing instructions and information for organizing and directing police and other law enforcement services in preparing for emergency operations.
5. Providing technical assistance and guidance to the States for implementing the National Plan in law enforcement organizations.

The training of police and other law enforcement officers in their emergency functions needs to be expanded and intensified. A fuller understanding of both general and specific law enforcement requirements for civil defense emergencies is essential for police of each State and community.

Mutual civil and military support in civil defense emergencies is important for maintenance of law and order. During FY 1961, the Department of Defense (DOD), the Department of the Army, and the Continental Army Command issued a series of directives which further emphasized DOD support of all OCDM programs and introduced additional military policies binding civil and military defense more closely to the vital concept of mutual support.

DISASTER SERVICES

Disaster services remain the key to national, family, and individual survival in any immediate postattack period. These services include casualty care and emergency public health (see *Health Services*), emergency welfare, rescue, debris clearance, fire protection, and decontamination. Extensive preattack planning, preparation, and training are the major requirements in providing these services and carrying them out effectively under emergency conditions.

Departments of local governments normally provide many professional and technical skills and material resources which are similar to those which would be needed on a much greater scale during post-attack operations. Comparison of figures 8 and 9 illustrates the similarity of normal and emergency functions of some of these depart-

ments. Helping State and local governments strengthen capabilities of their departments to perform emergency functions adequately is the basis for most of OCDM's activities in the fields of disaster services and the maintenance of law and order.

In carrying out its responsibility for coordinating Federal disaster relief under Public Law 875 (see *Federal Assistance*), OCDM continued to gain experience which would be helpful in dealing with the disaster conditions resulting from enemy attack. State and local governments also strengthened their capabilities through experience with natural disasters which, on a smaller scale, require disaster services and operations similar to postattack needs.

FY 1961 marked a period of rapid progress in developing nationwide capability for providing emergency welfare services. Constructive and progressive efforts of the Bureau of Public Assistance in the Social Security Administration of the Department of Health, Education, and Welfare (DHEW), and other agencies functioning under its guidance are chiefly responsible for this achievement. Major activities included:

1. Providing for leadership continuity of welfare agencies at all government levels. DHEW is responsible for planning this continuity. State civil defense directors in support of the program are expected to assure actual continuity of leadership of State and local welfare departments. Federal matching funds are available under Public Law 85-606 for employment of emergency welfare administrative officers, and OCDM has encouraged their employment in each State and in metropolitan and reception areas. OCDM has also encouraged incorporation of emergency welfare responsibilities into regular and continuing programs at all government levels.
2. Helping governments at all levels develop emergency welfare capabilities. OCDM, in cooperation with DHEW, provided technical guidance for implementing *Emergency Welfare* (Annex 19 to the National Plan). Guidance materials were issued on emergency provisions for welfare guidelines and structure, lodging, social services, feeding, clothing, registration and inquiry, and care and protection of persons in welfare institutions.
3. Liaison with national voluntary and related welfare organizations. OCDM and DHEW worked with these organizations to assure availability and maximum use of their personnel, equipment, and facilities.
4. Projects, in cooperation with DHEW and coordinated with other Federal agencies, to promote emergency welfare training programs, survival plans, establishment of facilities, and acquisition of supplies.

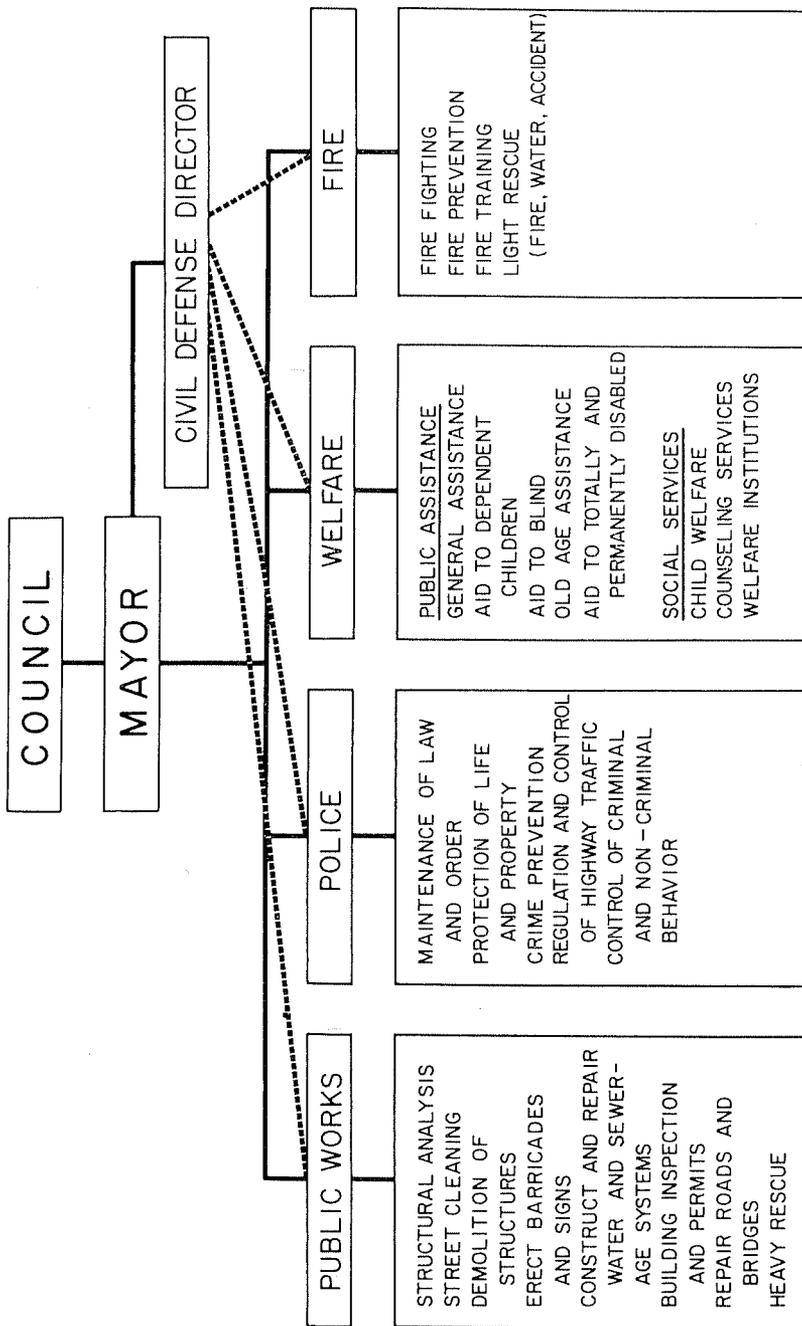


FIGURE 8.—Municipal government departments and functions; normal conditions.

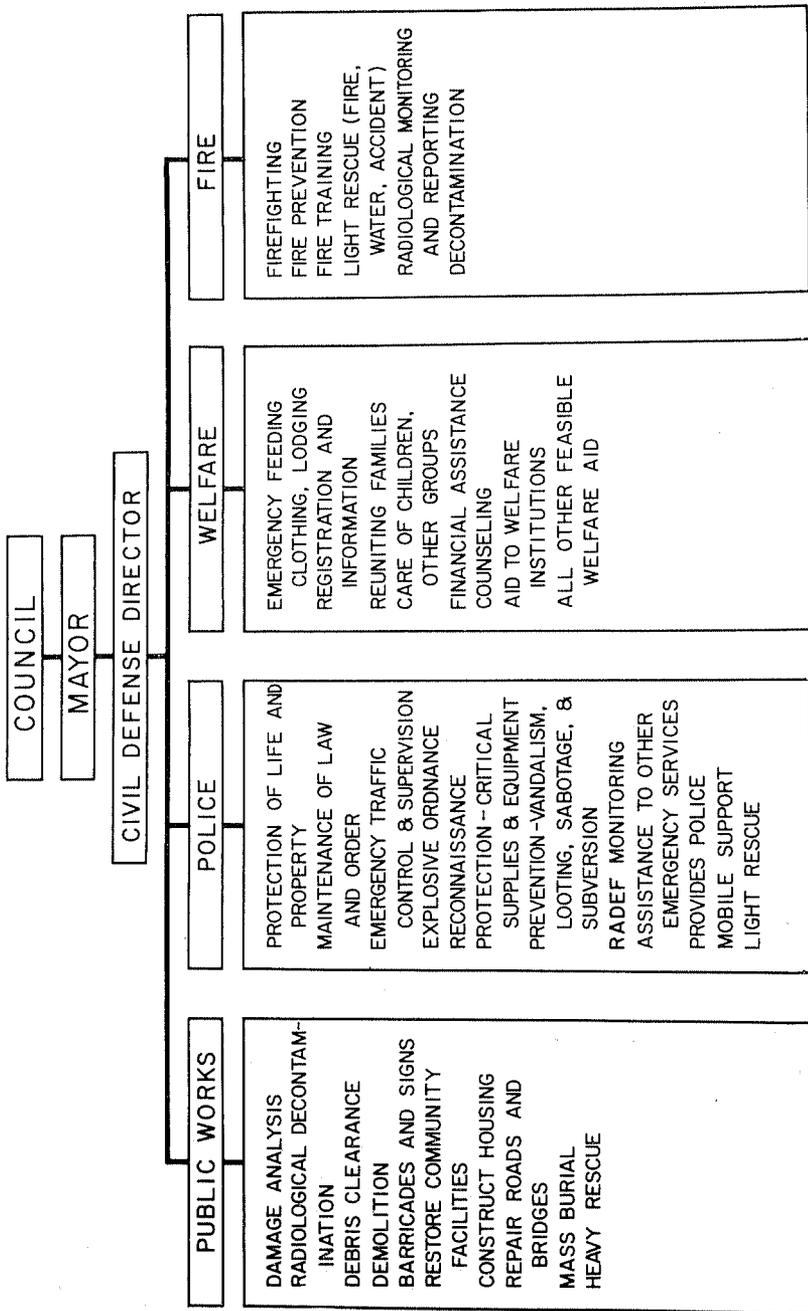


FIGURE 9.—Municipal government departments and functions, disaster conditions.

OCDM endeavored to develop optimum nationwide operational capabilities to rescue entrapped persons and to recover vital equipment, materials, and supplies. Principal activities for this purpose included:

1. Developing rescue capability by promoting plans for making heavy construction equipment of industry available for this purpose during disaster periods.
2. Encouraging rescue aid programs by issuing guidance material; e.g., the rescue programs of the Boy Scouts of America and the American Legion.
3. Implementing a program for converting postal trucks to emergency casualty carriers by installation of permanent conversion fittings for this purpose. Instructions for procurement of these fittings by Federal matching funds were prepared.
4. Redesigning and updating standards and specifications for heavy duty rescue equipment.
5. Revising and developing rescue training materials.

OCDM continued to work with State and local governments, Federal agencies, national organizations, and professional groups in developing plans for coordinated nonmilitary emergency use of engineering, construction, and public works resources. Chief emphasis during FY 1961 was on:

1. Development of standards for organizational and administrative procedures to implement a nationwide emergency public works plan, and encouragement of States to apply them.
2. Regional public works seminars to acquaint key engineering and public works personnel at all government levels with their responsibilities for emergency operations.
3. Qualification of public works personnel to use OCDM stockpiled equipment for supplying emergency water and power.
4. Work toward assuring availability of industrial construction equipment for disaster recovery operations. State and local governments were encouraged to use definite plans for this purpose; e.g., *Plan Bulldozer* of Associated General Contractors of America, Inc. This plan gives State and local governments access to the bulk of the Nation's construction resources in emergencies.

Primary emphasis of fire defense during FY 1961 was on developing and carrying out projects to support and implement the *National Fire Defense Plan* (Annex 21 to the National Plan). Nine of 12 major projects planned for this purpose have been started. Functioning through the OCDM National Fire Defense Advisory Committee

(NFDAC), national, State, and local organizations and officials assisted in this work. Principal activities included:

1. Securing appointment of State fire defense advisory committees to promote State and local fire defense preparations.
2. Developing a pilot course for training fire executives in fire defense functions.
3. Developing prototype emergency operations plans for Federal, State, and local fire defense and providing nationwide guidance in application of these plans.

HEALTH SERVICES

Assurance of optimum health services to the Nation's nonmilitary population under national emergency conditions is a basic objective. Achieving this objective requires: (1) Training and organizing of health manpower and assessing and deploying civilian health resources to maintain the health of the well population and restore the greatest possible number of sick and injured persons to productive activity, and (2) training the general public to provide medical self-help under conditions of restricted or nonexistent organized health services.

OCDM maintained program control of civilian emergency health planning conducted by DHEW and other agencies under its coordination and by DOD in regard to health resources. Under Emergency Preparedness Order No. 4 issued in January, 1961, OCDM worked with DHEW in developing and coordinating these programs. This section of the report summarizes the major activities resulting from these programs.

Training of professional health personnel at State and local levels was expanded to help them make maximum use of their organizations, personnel, and resources under emergency conditions. In addition to pilot State courses developed and tested in FY 1961, national courses were offered on the subjects of health mobilization planning, emergency hospital administration, emergency sanitation, and emergency nursing.

The Medical Education for National Defense (MEND) program, supported jointly by the Armed Services, the Public Health Service of DHEW, and OCDM, has the participation of 81 of the Nation's 85 medical schools. Coordinators of the MEND program held a symposium at the OCDM Eastern Instructor Training Center on *Organization of Emergency Health Services*.

Under OCDM contract, DHEW completed a medical self-help manual and a related training course and kit which were tested and evaluated as a tool for use by physicians and instructors in training the public to meet emergency health needs.

In accordance with recommendations prepared by the American Medical Association under OCDM contract, Cornell University is developing standardized emergency treatment techniques for use in mass casualty care. Evaluation of these techniques is scheduled for FY 1962. Upon acceptance by the medical profession, they will be used as a basis for training professional health personnel.

In FY 1961, OCDM identified health manpower skills by publishing Appendix 1 to the *National Health Plan* (Annex 18 to the National Plan). This information will help implement previously established policy of the National Plan (Annexes 18 and 30) which vested control responsibility for distribution, allocation, and training of health manpower in governmental health agencies.

To preclude unbalanced distribution of health manpower, as experienced in civilian communities during uncontrolled voluntary Armed Forces procurement in World War II, OCDM began to form control procedures for use in time of mobilization. As a result of interagency discussions, OCDM and DHEW developed recommended procedures, but further work is needed to fully solve the problem.

Subject to OCDM policy direction and central program control, management of the Federal medical stockpile was transferred to DHEW on October 1, 1960. (See *Federal Stockpiles*.) At the end of FY 1961, the medical stockpile was valued at approximately \$169 million. It contained medical supplies and equipment stored at 33 locations and 1,932 200-bed civil defense emergency hospitals (See figure 10) of which nearly 1,700 were prepositioned in the States, 97 were being used for training and display purposes, and the balance held in reserve. During FY 1961, 257 hospital units were prepositioned in the States and 15 were placed on loan for training purposes. About 59 million doses of vaccines and antibiotics are positioned at manufacturers' storage points.

State medical supplies obtained with the aid of Federal matching funds totaled \$31 million acquisition cost at the end of FY 1961 and included 282 hospital units and 7,000 first aid stations.

The medical stockpile program is being made more effective and economical by: (1) Using available Government storage sites in place of rented space, (2) dispersing medical supplies from central warehouses to prepositioned hospital sites where the supplies would be readily available as needed and would increase operational capability of hospital units from 3 or 4 days up to 30 days, and (3) continued reworking of outdated blood plasma to serum albumin (approximately 395,000 units processed in FY 1961).

OCDM has initiated planning in cooperation with other Federal agencies as appropriate to: (1) Assure that coordinated preattack

assignments of certain nonindustrial facilities be made to Government health agencies for use as hospitals during mobilization of war emergencies, (2) provide for orderly military use of available Veterans Administration hospital space during conditions of mobilization or limited war, (3) determine desirability of establishing medical agencies to regulate postattack transportation of patients, and (4) standardize methods for agencies to use in computing health facility needs.

Major professional health organizations supported the development of emergency health programs. Outstanding examples were:

1. The Council on National Security of the American Medical Association, in working with OCDM and DHEW, continued its national and regional conferences on civil defense health problems. Increased State and local participation in civil defense health activities resulted from these conferences which were attended by representatives of State and county medical societies.
2. The National League for Nursing, under OCDM contract continued to develop recommendations to incorporate emergency nursing care in curricula of schools of nursing. Representatives of this organization met in April with representatives of OCDM, DHEW, the American Nurses Association, and the American Medical Association to consider final recommendations and action for implementing them.
3. The American Hospital Association agreed to collect data on emergency expansion capability of hospitals by use of its annual questionnaire. These data will be in addition to its annual inventory of all available hospital facilities and will be used by NREC to assure greater accuracy in estimating postattack resources.
4. The American Dental Association's Committee on National Defense held an annual conference on civil defense planning. The work of this conference has stimulated its members to participate in local civil defense activities and has resulted in increasing the teaching of emergency medical care in dental schools.
5. The American Pharmaceutical Association, as illustrated by devoting the October 1960 issue of its official journal to civil defense, promoted the emergency health program among its members.
6. The American Psychiatric Association's Committee on Disaster and Civilian Defense continued to work with OCDM and DHEW on the use of mental hospitals for civil defense emergencies and on exploration of the psychiatrist's role in such emergencies. Plans for emergency use of mental hospitals have included individual hospitals, the surrounding community, and in some

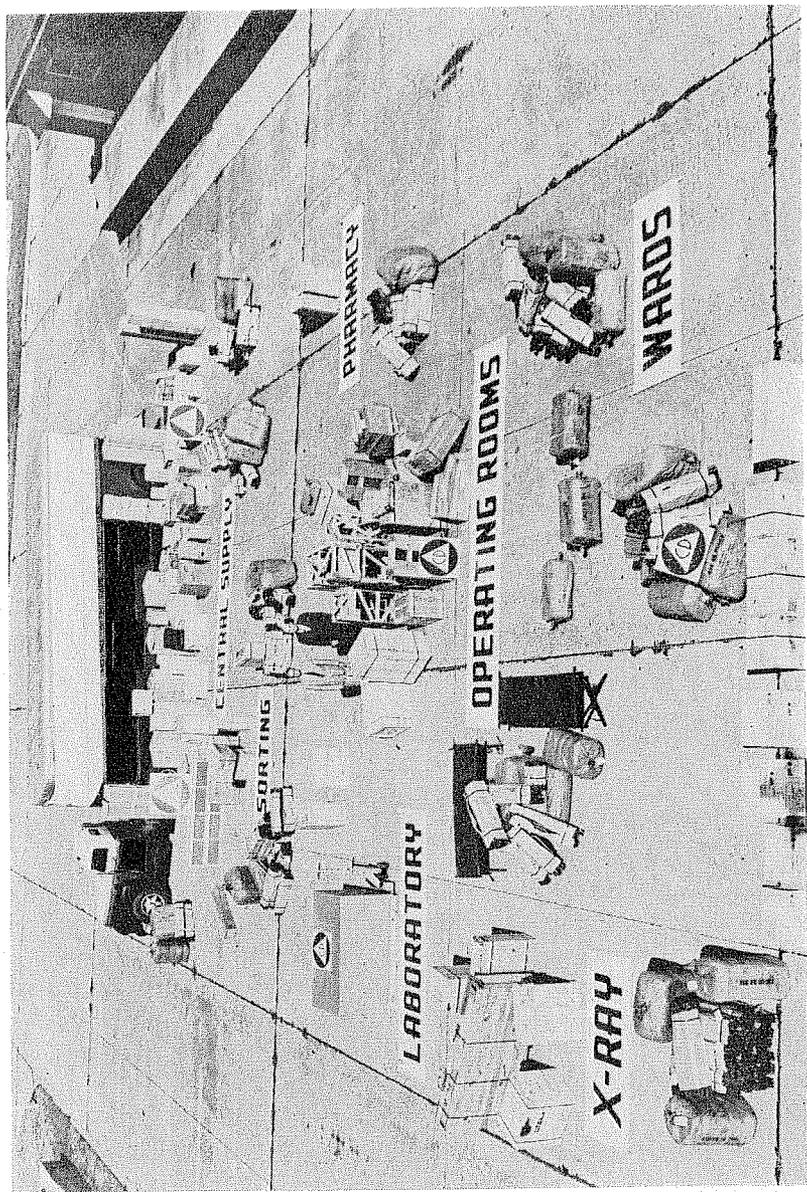


Figure 10.—Emergency hospital equipment display.

cases entire State systems. Pertinent information on preparedness measures is being disseminated to all State and local mental hospitals. The Mental Hospitals Institute of October 1961 and DHEW's support should provide increased momentum to this movement during FY 1962.

PROTECTION FROM WEAPONS EFFECTS

Radiological Defense Monitoring

An effective radiological defense monitoring system is necessary to provide information on extent, intensity, and duration of radiological hazards. Without this information intelligent use of shelter, controlled population movements, and decontamination would be impossible during a nuclear postattack period. Specifically, the information would be needed for: (1) Decisions by government leaders at all levels, (2) warning the public, (3) guidance of emergency services, and (4) applying effective decontamination procedures.

Key elements of effective radiological monitoring are properly maintained and calibrated instruments, monitoring stations (fixed, mobile, and aerial), and trained personnel (monitors and radiological defense officers). During FY 1961, OCDM continued to strengthen the Nation's radiological defense system as authorized generally by (1) the Federal Civil Defense Act of 1950, as amended (Public Law 920, 81st Congress, as amended) and (2) specifically by sections 201(h) and 201(i) of the same law as amended by Public Law 85-606.

Federal radiological monitoring stations were increased approximately from 1,500 to 2,900. (See fig. 11.) These stations operate at field installations of the United States Weather Bureau of the Department of Commerce, the Department of Agriculture, the Department of the Interior, the Air Weather Service of the United States Air Force, the Naval Aerological Service, and the Federal Aviation Agency. Planned increases should bring the total number of Federal stations to 4,400 by the end of FY 1962, at which time there should be at least one station in each county. All of these stations will report radiological information directly to OCDM and to local governments in their immediate areas. According to current plans, 6,000 Federal stations should be in operation by the end of FY 1963, and most of them will also report information to Federal and local governments. Instruments furnished these stations by OCDM will enable Federal agencies to determine areas in which radioactive fallout intensities make performance of emergency functions infeasible.

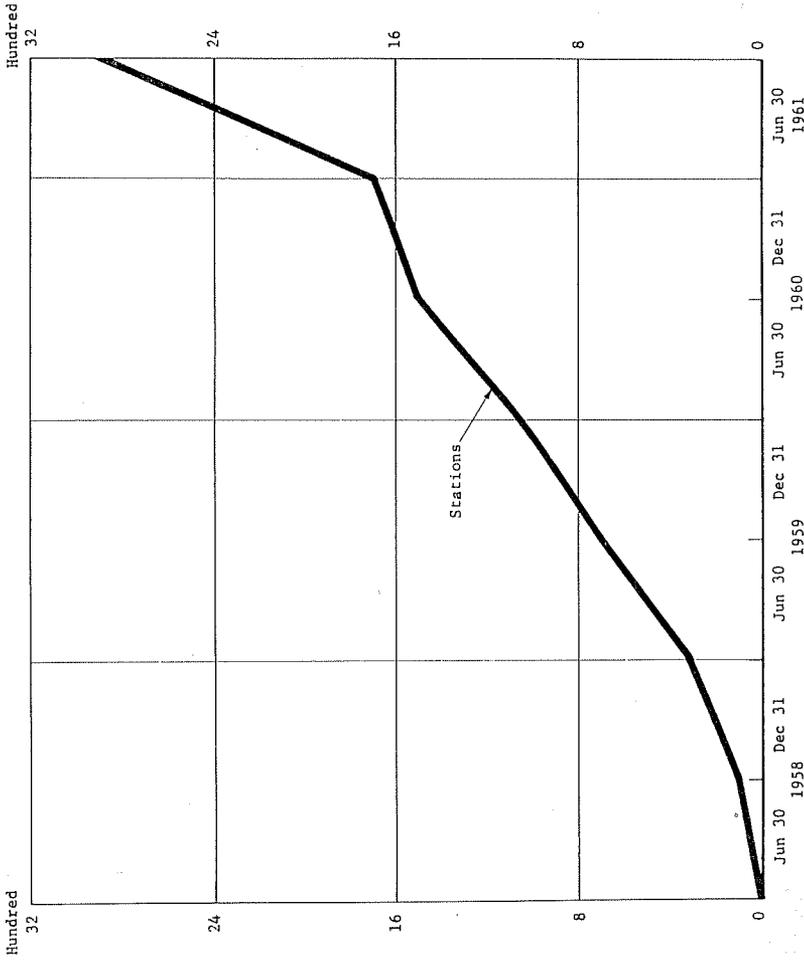
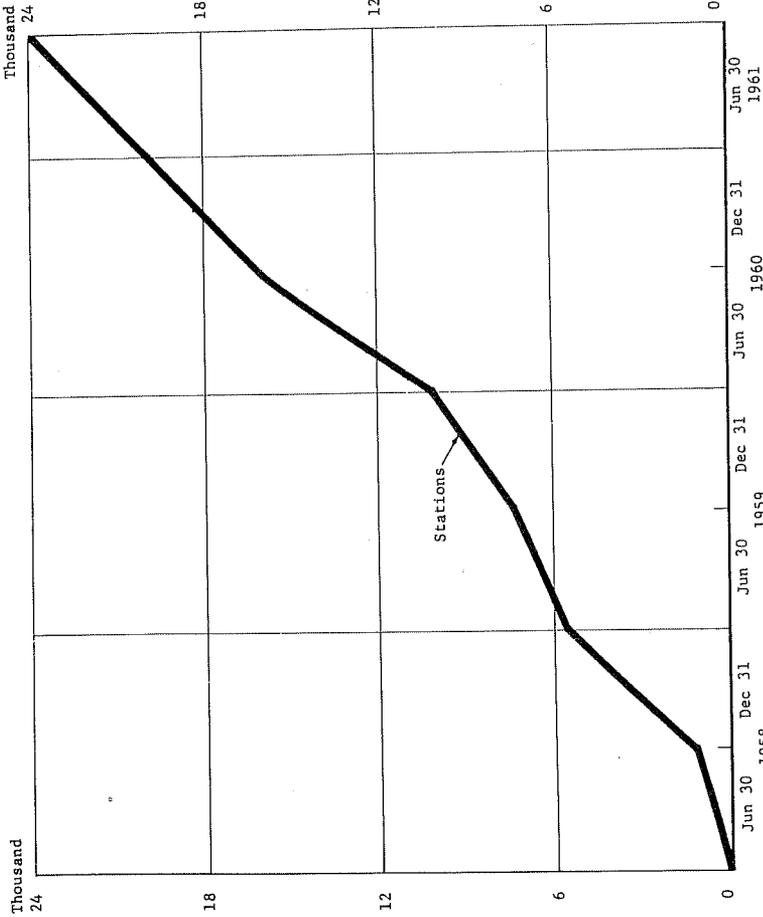


FIGURE 11.—Growth of the Federal radiological fallout monitoring network.



* Based upon monitoring stations reported to OCDM by the States and 60 percent of the high schools issued RADEF equipment by OCDM

FIGURE 12.—Growth of State and local radiological fallout monitoring network.

Reports from the States show that approximately 24,000 State and local monitoring stations have been established. (See fig. 12.) These stations are located mostly at high schools, hospitals, airports, conservation offices, and at fire, police, and highway patrol facilities. Scheduled expansion of State and local monitoring stations should bring the total to 70,000 by the end of FY 1962, and 144,000 by the end of FY 1963.

The location of most State and local monitoring stations enables instruments furnished by OCDM to be used for mobile and aerial monitoring in addition to fixed station monitoring. Until a special aerial instrument, currently being developed, becomes operationally available, the medium-range survey meter furnished by OCDM is satisfactory for this purpose. According to arrangements with the Department of Defense, the Civil Air Patrol (CAP) will perform aerial monitoring, and States are currently reaching agreements with the CAP to perform this emergency function. At the end of FY 1961, OCDM was negotiating with the Continental Air Defense Command for permission to perform aerial monitoring if military restrictions specified in the plan for Security Control of Air Traffic and Electromagnetic Radiations (SCATER) should require activation.

OCDM continued to furnish each civilian monitoring station at all levels of government, three survey meters, two dosimeters, a dosimeter charger, and two protective masks. At the end of FY 1961, about 500,000 instruments had been issued and an additional 250,000 instruments were scheduled for issuance in FY 1962. OCDM has procured more than 1.4 million items of radiological defense equipment for training and operational use (see fig. 13), and manufacturers have delivered about 80 percent of them.

In addition to furnishing radiological instruments, OCDM assisted States in calibrating and maintaining them for continuous use. Except for cost of transportation, maintenance and repair service was furnished free to the States at 12 dispersed OCDM maintenance shops. Other services included: (1) Provision of Federal matching funds for cost of batteries, tools, test equipment, and maintenance by private contractors; (2) training personnel; (3) supplying spare parts; and (4) an offer to place 20 large calibrators at universities. Contracts providing for placement of five large calibrators with universities were executed and execution of three additional contracts was pending. For more convenient servicing of instruments, OCDM was also developing and testing a semiportable and more operational calibrator.

Guidance for all levels of government in providing protection from radiological hazards is contained in the *National Radiological Defense Plan* (Annex 23 to the National Plan). Appendixes to this annex provide additional information on planning, implementing, and carry-

ing out standardized operational procedures in monitoring, reporting, analysis of data, technical support and guidance, making fallout forecasts, decontamination, and calibration or maintenance of instruments. Interim drafts of 10 appendixes were in use at the end of FY 1961, and 4 were in preparation for distribution in FY 1962.

OCDM concurred in an Interagency Radiological Assistance Plan. It provides that each Federal agency will issue guidance material to help protect persons, within its area of responsibility, from peacetime nuclear accidents. Instructions for this purpose were being prepared for publication and issuance to State and local governments in FY 1962.

Approximately 120,000 radiological monitors and about 12,000 radiological defense officers and monitor instructors had been trained by the end of FY 1961. Planned training increments should provide 20,000 radiological defense officers and 300,000 monitors at the end of FY 1963. The average number of monitors per station would then be two, and FY 1965 plans call for increasing the number to four. In addition, planned training increments should provide 20,000 assistant radiological defense officers by the end of FY 1965.

Chemical and Biological Defense

Specific needs for postattack information on chemical warfare (CW) and biological warfare (BW) agents and authorization for OCDM's continued activities in this field are the same as those outlined under *Radiological Defense Monitoring*. For efficiency and economy of operations, a portion of the radiological monitoring stations and network will be used for BW and CW monitoring to the extent feasible.

The United States Public Health Service of the Department of Health, Education, and Welfare (DHEW) has been delegated primary responsibility for developing and directing programs for prevention, detection, and identification of human exposure to BW and CW agents, including that from food and drugs. The Department of Agriculture has been delegated similar responsibility in the realm of animals, crops, and their products. (See table 2.) However, OCDM continued to provide leadership, program guidance, and financial support to the two departments in carrying out these functions.

Detection equipment and systems for BW and CW monitoring are being developed through research work by the U.S. Army Chemical Corps. Data being developed from research currently under contract will be used to help select locations for suitable monitoring stations. According to scheduled plans, BW and CW monitoring should become operational during FY 1964 and FY 1965.

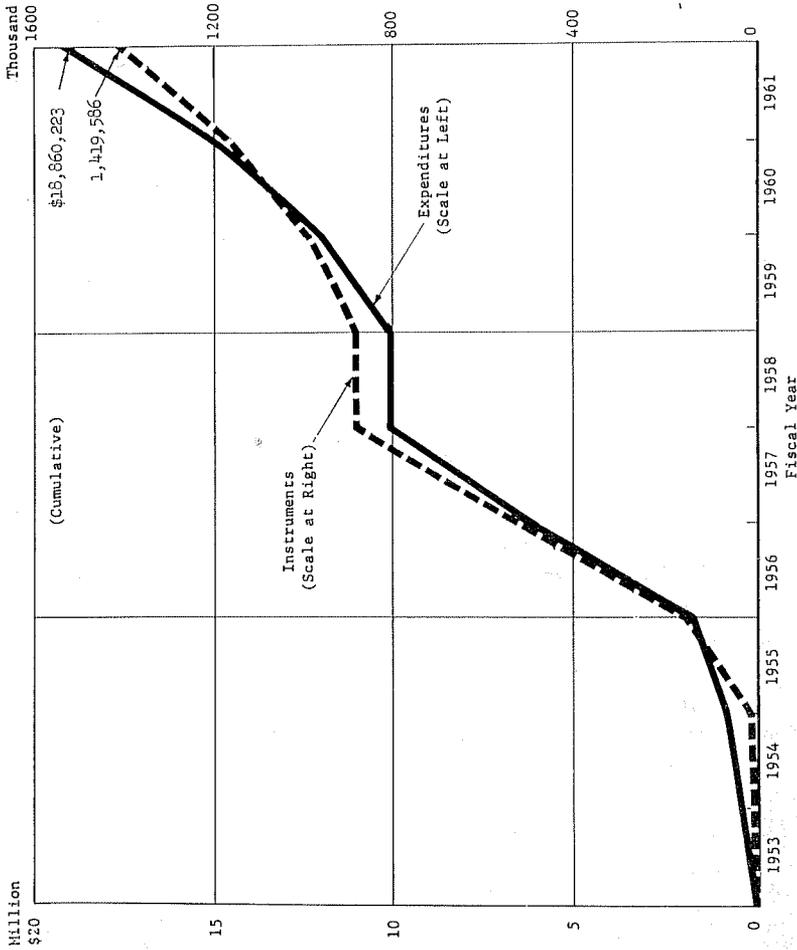


FIGURE 13.—Allocation of funds for instrument procurement.

Studies on mass production of a protective mask developed for sale to the public indicate that the mask can be made available commercially for adults and children in six sizes at a cost of less than \$5 each. These studies are scheduled for completion early in FY 1962 when manufacturers will be given appropriate information and encouraged to mass produce the masks commercially. The mask offers adequate protection against inhalation of biological, chemical, and radiological warfare agents. Made of tough vinyl plastic with an elastic rubber head harness and packaged in a transparent vinyl plastic carrier, the mask is light and affords good vision and easy breathing.

Status of other projects completed or underway included:

1. Production testing of an infant protector, which has been developed, was scheduled for FY 1962.
2. Acquisition by OCDM of about 60,000 additional excess military masks from the Department of Defense.
3. Distribution of two protective masks to each radiological monitoring station at each government level.
4. Distribution of approximately 2,400 assemblies of CW protective equipment to State and local governments for familiarization, demonstration, and emergency operational use. Each assembly contains eight protective masks, one CW detector kit, and instructional materials.
5. Arrangements with DHEW to move the atropine stockpile from warehouses to emergency prepositioned hospitals. (See *Health Services*.)
6. Procurement of 13 million tubes of protective ointment for treatment of CW exposure to blister gases and 60 million doses of biological materials for casualty treatment and prevention of CW epidemics; e.g., vaccines, sera, antitoxins, biotics, blood derivatives, and plasma.
7. Completion of interim drafts of 10 appendixes to the *National Biological and Chemical Warfare Defense Plan* (Annex 24 to the National Plan). These drafts were being used as interim documents for operational guidance pending their final publication. Scheduled plans should result in completion and publication of four additional appendixes during FY 1962.

Explosive Ordnance Reconnaissance

The Department of Defense (DOD) remained responsible for disposal of military explosive ordnance. Reconnaissance for unexploded ordnance in an emergency and reporting of findings to the Department of the Army explosive ordnance control centers or explosive disposal units are responsibilities of State and local governments.

The Department of the Army, in cooperation with other military components of DOD, provided assistance to civilian authorities as requested, in training personnel for explosive ordnance reconnaissance and in establishing and operating a reporting system covering incidents of unexploded ordnance. OCDM sought to promote this training, especially among police and other law enforcement organizations. (See *Maintenance of Law and Order*.) The planned goal is to train and maintain 10 percent (approximately 22,000) of the civilian police qualified in explosive ordnance reconnaissance. From January 1, 1959, to June 30, 1961, the United States Continental Army Command (USCONARC) trained 9,201 civilian police for this purpose. Of this number, 1,296 were trained during the last half of FY 1961.

In addition, State and local governments are responsible for detection and disposal of nonmilitary commercial-type non-nuclear devices as a regular peacetime function. This function is closely related to explosive ordnance reconnaissance. The USCONARC therefore offered 11-hour orientation courses on explosive and sabotage devices to regular full-time police. From January 1, 1959, to June 30, 1961, 3,533 civilian police completed this course. Of this number, 885 completed the course during the last half of FY 1961.

MOBILIZATION AND MANAGEMENT OF RESOURCES AND PRODUCTION

A major civil defense and defense mobilization mission, in addition to the protection of life and property, is to provide for the availability and effective use of resources under emergency conditions. To accomplish this mission, OCDM conducts programs for: (1) The development and maintenance of adequate supplies of essential resources at locations where they will be available in emergencies, including the determination of supply and requirements and the identification and correction of deficiencies; and (2) the revival of postattack production, and the development of management capability at Federal, State, and local levels which will assure the effective use of available resources in emergencies.

DEVELOPMENT AND MAINTENANCE OF ESSENTIAL RESOURCES¹

The National Plan charges the Federal Government with responsibility for stimulating the development and maintenance of resources necessary for expanding, maintaining, or restoring essential production and distribution processes.

Federal Stockpiles

The Federal Government continued to maintain important stockpiles for civil defense and defense mobilization purposes. These stockpiles included strategic and critical materials inventories, survival item inventories, and machine tool inventories.

*Strategic and critical materials.*²—The Federal Government has stockpiled strategic and critical materials for defense purposes principally in (1) the Strategic Stockpile established by the Strategic and Critical Materials Stock Piling Act (Public Law 520, 79th Congress) and (2) the Defense Production Inventory established under the Defense Production Act, as amended. Under the Stock Piling Act, and with interagency assistance, OCDM has designated official stockpile objectives for the principal materials in these inventories. However, the Supplemental Stockpile established by the Agricultural Trade Development and Assistance Act, as amended, contains additional strate-

¹ See *Industry Defense* for information on protection of the national industrial plant.

² Detailed information on the stockpiling of strategic and critical materials is presented in OCDM's semiannual *Stockpile Report to the Congress*, which is submitted pursuant to section 4 of the Strategic and Critical Materials Stock Piling Act (Public Law 520, 79th Congress).

gic and critical materials as does the Commodity Credit Corporation Inventory obtained through the barter of agricultural surpluses.

At market prices of June 30, 1961, the Strategic Stockpile contained strategic and critical materials valued as follows:

1. Seventy-six materials meeting stockpile specifications and having specified maximum stockpile objectives..... \$4.0 billion
2. Surplus specification-grade materials in excess of established stockpile objectives..... \$1.6 billion
3. Materials assigned no fixed stockpile objectives and not meeting stockpile specifications..... \$0.1 billion

The Defense Production Act Inventory contained specification-grade strategic and critical materials valued at \$840 million on June 30, 1961. Some of these materials were applicable to maximum stockpile objectives. The Supplemental Stockpile and Commodity Credit Corporation inventory contained sufficient quantities of several materials to complete stockpile objectives for which Strategic Stockpile and Defense Production Inventories were insufficient.

In OCDM's current policy for disposing of excess materials, preference is given to materials in the DPA inventory that are not needed toward Strategic Stockpile objectives. Disposal actions must: (1) Avoid serious disruption of the usual markets of producers, processors, and consumers; (2) avoid adverse effects on international interests of the United States; (3) be made with due regard to protecting the United States against avoidable loss; and (4) be approved by Federal departments and agencies concerned, unless the materials are to be used directly by another Federal agency. The industries concerned are consulted as appropriate.

Sales commitments for disposal of excess and obsolete materials from the Strategic Stockpile and DPA inventories in FY 1961 totaled approximately \$60 million. Of this amount, \$42 million was from the strategic stockpile and the remaining \$18 million was from the DPA inventory. Rubber, coconut oil, diamonds, hog bristles, and cadmium-magnesium alloy from the strategic stockpile, and nickel from the DPA inventory, formed the largest portion of the sales.

Plans for disposal of 28 materials from the strategic stockpile were submitted to the Congress during FY 1961. Twelve of these items required express approval of the Congress. By June 30, 1961, the 6-month notice period required for disposal had expired for 12 of the remaining 16 items.

Every effort was made further to reduce commitments for deliveries of materials that would be in excess of maximum stockpile objectives, but the reductions during FY 1961 for both the strategic stockpile and the DPA inventory totaled only \$22 million. This fact indicated the diminishing prospects of reducing commitments when

contracts are reduced or approach expiration date. Since 1958, when the total for the fiscal year was almost \$271 million, the reductions have dropped considerably and totaled only \$28 million in 1959 and \$76 million in 1960. The largest reductions have been in the DPA programs under which the Government, pursuant to the Defense Production Act of 1950, as amended, had guaranteed purchase of materials for use or resale as an incentive toward expansion of productive capacity. Some of these contracts were converted to barter contracts by which the contractor would accept payment in agricultural surpluses in lieu of cash. The General Services Administration will continue to review existing contracts and, if feasible, negotiate with suppliers for further reductions.

The upgrading of stockpiled materials to more readily usable forms was continued. Included in the stockpile procurement list for FY 1961 were the following upgraded forms: oxygen-free copper, manganese metal (electrolytic), ferromolybdenum, molybdc oxide, sebacic acid, and tungsten metal powder (carbon-reduced). Ferrotungsten and tungsten metal powder (hydrogen-reduced), which were included originally, were deleted because OCDM was unable to obtain complete interagency approval of the use of payment-in-kind to pay cost of their upgrading. An additional amount of sebacic acid was substituted in their place. Opportunities for barter appear favorable for the relatively small quantities of processed tungsten still needed.

New cash purchases with strategic stockpile funds during FY 1961 were limited to small diamond dies and jewel bearings. Repeated efforts have been made for several years to encourage domestic production of these items in the interest of maintaining a mobilization base in this country. However, it was necessary to seek procurement of the diamond dies on the foreign market because domestic production has not provided the stockpile-grade dies needed.

OCDM used the Department of Agriculture barter program during FY 1961 to save cash payments in procuring items for stockpile objectives. Included in barter procurement were some materials to be upgraded, but all upgrading was to be done in the United States to help maintain the mobilization base for processing which would be essential for use of stockpiled ores and concentrates in an emergency.

A new review of strategic materials policies was initiated late in FY 1961.

All agencies having a responsibility in the strategic and critical materials stockpile program agreed to take the balance-of-payments problem into account in their reviewing of materials programs.

During the past year a new study was completed on the strategic security of all Government-owned industrial stockpiles against loss or denial of access in the event of massive nuclear attack on the United

States. This study resulted in a revision of policies for evaluating the relative security of potential new storage sites and identifying vulnerable sites.

Three materials were removed from the List of Strategic and Critical Materials for Stockpiling during the year: soft crocidolite asbestos, muscovite block mica (stained-B and lower), and wool. In addition, stockpile objectives were established for phlogopite block mica.

Use of surplus materials in foreign aid programs.—The President, in his message to the Congress on March 22, 1961, and in subsequent messages, requested the use of available surplus stockpile materials in foreign aid programs. A task force was therefore established to advise OCDM on implementing actions to comply with the President's request.

Chaired by OCDM, the task force has representatives from the Bureau of the Budget, International Cooperation Administration, Development Loan Fund, General Services Administration, Export-Import Bank, and Departments of State, the Treasury, the Interior, Commerce, and Agriculture. Advice from the task force will include the following:

1. Materials to be made available and their form and degree of upgrading.
2. Special policies and procedures to facilitate release and maximum use of materials made available.
3. Proposed Executive orders or legislative changes needed to increase potential use of materials.
4. Other related policy, program, or procedural matters for which the agencies represented on the task force are responsible.

Machine tools and production equipment.—The Federal Government continued to strengthen the mobilization base in machine tools and production equipment. Under OCDM guidance and with the aid of an OCDM interagency task group, this work was advanced through efforts of several trade associations, the Department of Commerce, the Department of the Treasury, and the Bureau of the Budget. Studies and actions were designed to reverse the trend toward machine tool obsolescence in the United States, to provide incentives for equipment modernization, to increase equipment exports and reduce imports, and to otherwise manage this important part of the mobilization base.

OCDM reviewed a preliminary report from the Department of the Treasury on depreciation study and continued to review a report on machine tool obsolescence from the Department of Commerce. OCDM also continued to review and control the sale and nondefense leasing of Government-owned machine tools and related forms of production equipment.

The Federal Government has contracts with 81 general purpose machine tool producers to begin production of approximately 14,500 general-purpose tools upon notification of need in an emergency. Cost of these tools would exceed \$221,900,000.

Donation and loan of Government-owned tools to schools promoted the training of machine-tool operators and the dispersion and use of tools as well as savings in tool storage and maintenance costs. Through the surplus property donations program, the Department of Health, Education, and Welfare processed approximately 1,000 items monthly for donation to tax-supported schools. Under OCDM guidance, the Department of Defense and the General Services Administration processed loan requests from 32 schools for a total of 718 tools.

*Survival items.*³—Projected cost of needed medical items totaled \$725 million. Intended use of the barter system for providing many of these survival items would reduce the cash expenditures required. Included in the FY 1962 budget were provisions for procuring 200-bed emergency hospitals at an approximate cost of \$18 million. An inter-agency committee was established by OCDM to determine the quantity and type of items in this procurement which could be suitably acquired by barter. However, these items would be procured from foreign sources only if appropriations were simultaneously available for domestic purchases.

OCDM directed the Department of Defense and the Business and Defense Services Administration, Department of Commerce, in collecting and analyzing information on potential postattack conversion and expansion of facilities for the production of medical items and the development of substitute items. Prior estimates of available post-attack survival items were being revised in the light of new information. Inventories of medical items which may survive attack were also being estimated and included in this revision. Plans called for similar treatment of other survival items.

In addition to the approximate \$169 million Federal medical stockpile (see *Health Services*) managed by DHEW, OCDM maintained a civil defense stockpile valued at approximately \$20 million at the end of FY 1961. This stockpile contained emergency engineering, chemical, biological, and radiological equipment.

At the end of FY 1961, the Commodity Credit Corporation, Department of Agriculture, had accumulated under price-support legislation, agricultural commodities valued at approximately \$5.5 billion. These stocks continued to be reasonably well dispersed. In accord with CCC-OCDM policy, whenever stocks are moved or located at new

³ See *Health Services* for additional information on the Federal medical stockpile.

sites, defense criteria are applied in selecting sites which are removed from critical target areas and accessible to emergency transportation. (See *Food and Water*.)

Development of Alternates or Substitutes for Imported Strategic and Critical Materials

A Government-sponsored research project has shown synthetic mica to be an effective substitute for natural mica as an electronic-tube spacer material. Another research project, to develop a high-quality capacitor dielectric of synthetic mica, succeeded in developing a synthetic film mica, but additional work is necessary to improve properties of the film. This project was initiated with Defense Production Act (DPA) funds when fulfillment of the stockpile objective for natural-film mica seemed remote. But recent changes in mobilization planning leaves no justification for expenditures of DPA funds past the expiration of the contract on July 31, 1961. OCDM has therefore asked the Department of the Interior to sponsor this project to a successful conclusion. Its completion is important to help overcome the Nation's dependence upon mica imports.

Expansion of Production Capacity

The Federal Government's principal means for encouraging expansion of the Nation's production capacity for defense and mobilization purposes have been: (1) Accelerated tax amortization under Section 168 of the Internal Revenue Code of 1954, as amended, and (2) loans (including participations in, or guarantees of) under the Defense Production Act of 1950, as amended.

The authority to issue certificates of necessity for accelerated tax amortization expired on December 31, 1959. During the program, 22,312 certificates were issued covering facilities estimated to cost more than \$39 billion, of which more than \$23 billion was eligible for accelerated tax amortization over a five-year period. During FY 1961, approximately 125 certificates of necessity were amended at the request of the certificate holders. Under section 708(e) of the Defense Production Act of 1950, the Attorney General made a report on certificates of necessity issued for petroleum refining and copper wire facilities.

An application for a direct loan of \$5,500,000 was filed with the Treasury Department by the New York, New Haven, & Hartford Railroad Co., under section 302 of the Defense Production Act. OCDM denied the loan because the requested funds were for purposes other than expanding the company's railroad facilities. Therefore, the loan application did not meet the criteria of the Defense Production Act.

National Security Investigations of Imports

Section 8 of the Trade Agreements Extension Act of 1958 (Public Law 85-686) provides the authority and a means for determining the extent to which imports may be threatening to impair the national security. The OCDM Director is responsible for investigating allegations that an article is being imported into the United States in quantities and under circumstances which threaten to impair the national security. If, as a result of investigation, he is of the opinion that a threat to the national security exists, he must so advise the President.

Two new applications for investigation under section 8 (Public Law 85-686) were filed in FY 1961. One involved imports of hard-fiber cordage and twine products which reopened this case for the second time since the initial March 1957 ruling that such imports were not threatening the national security. The second application involved imports of textiles and textile manufactures.

After OCDM had concluded its investigation on the import of dental burs, the petitioner withdrew the application on January 10, 1961. On November 18, 1960, the Director of OCDM announced his conclusions that imports of steam-turbine generators and imports of wool-knit gloves were not threatening to impair the national security.

At the end of FY 1961, OCDM had in active status the import investigations of surplus military rifles, transistors and related semiconductor products, hard-fiber cordage and twine products, and textiles and textile manufactures. (See table 3 for a status summary of investigations under section 8 of Public Law 85-686.)

Pursuant to the responsibilities for the surveillance of oil imports, including prices, assigned the OCDM Director by Presidential Proclamation No. 3279 of March 10, 1959, which established the oil import control program, OCDM has closely followed the program in relation to national security. During FY 1961, the Department of the Interior proposed changes in crude oil and residual oil controls. Based on these proposals, OCDM via the Bureau of the Budget, made recommendations to the President who accepted several of them.

Residual fuel-oil price fluctuations were of particular concern to OCDM, and experience demonstrated that the regularly available price reports were inadequate for required price surveillance. OCDM therefore instituted a sales survey of residual oil importers and dealers having deep water terminals on the Atlantic and Gulf coasts. Monthly data on full tanker cargo transactions were obtained for 1957 through 1960. This information was summarized and released on April 14, 1961. Commencing with January 1961, more detailed monthly reports were requested. Data from these reports will be released periodically.

TABLE 3.—Investigations under the Trade Agreements Extension Act of 1958 (Public Law 85-686)

Product or commodity	Source of petition	Date filed	Status
Cobalt.....	Howe Sound Co, 500 Fifth Ave, New York 36, N.Y.	Oct. 2, 1958	Petition denied Oct. 2, 1959.
Cordage and twine products, hard fiber.....	Plymouth Cordage Co., Plymouth, Mass., and Columbian Rope Co., Auburn, N.Y.	Sept. 13, 1960	In process (3d investigation).
Crude oil and its products.....	Department of State and Department of Defense.....	Jan. 22, 1959	Certified to the President, Feb. 27, 1959.
Dental burs 1.....	American Dental Association, 1010 Vermont Ave. NW, Washington 25, D.C.	May 12, 1958	Petition withdrawn, Jan. 10, 1961.
Electric power equipment, heavy 1.....	General Electric Co., Schenectady 5, N.Y., and National Electrical Manufacturers Association, 115 East 44th St., New York 17, N.Y.	Mar. 7, 1958	Petition denied, June 12, 1959.
Floorspar.....	American Floorspar Producers Association, Elizabethtown, Ill.	Oct. 29, 1958	Petition denied, Sept. 25, 1959.
Steam turbine generators.....	General Electric Co., Schenectady, N.Y., and Westinghouse Electric Corp., Pittsburgh 30, Pa.	Feb. 20, 1959	Petition denied, Nov. 18, 1960.
Surplus military rifles.....	Sporting Arms and Ammunition Manufacturers Institute, 250 East 43d St., New York 17, N.Y.	June 29, 1959	Completed, decision to be announced.
Textiles and textile manufacturers.....	American Cotton Manufacturers Institute, Inc., Washington, D.C., and others.....	May 15, 1961	In process.
Transistors and related products.....	Electronic Industries Association, 1721 DeSales St. NW, Washington 6, D.C.	Sept. 17, 1959	In process (nearly completed).
Tungsten.....	Howe Sound Co., 500 Fifth Ave., New York 36, N.Y.	Oct. 2, 1958	Petition withdrawn Oct. 21, 1959.
Wool-knit gloves.....	Director, Office of Civil and Defense Mobilization.....	Feb. 25, 1959	Petition denied Nov. 18, 1960.

1. Filed under section 7 of Trade Agreements Extension Act of 1955 and under investigation on August 20, 1958, when Trade Agreements Extension Act of 1958 became effective. Investigation was accordingly continued under section 8 of Public Law 85-686. Suspended or inactive cases under section 7 of the 1955 act were dropped on August 20, 1958, with provision that petitioners could refile under the 1958 act.

During FY 1961, OCDM conducted three separate national security investigations under the oil import control program. Although the underlying petitions were not new applications under section 8 (Public Law 85-686), the type of investigation conducted by OCDM followed a similar format and was for practical purposes the same. The first petition, initiated by the Joint Committee for American-Flag Tankers and the Committee of American Tanker Owners, Inc., sought a directive requiring that a fixed share of oil imports be carried in American-flag ships. The petition contended that such a requirement was necessary to maintain the American-flag tanker fleet of sufficient size and condition to prevent an impairment of national security. On December 29, 1960, the OCDM Director announced that he was denying the application. He concluded that American-flag tankers, supplemented by ships of Panamanian, Liberian, and Honduran registry which reasonably could be expected to be made available to the United States in time of emergency, were adequate to meet defense requirements for the present and foreseeable future.

The second investigation was in response to the joint petition of four major oil companies for decontrol of the asphaltic content of imported crude and unfinished oils used to produce asphalt. A decision on this investigation will be announced by the OCDM Director during FY 1962.

The third investigation was started late in FY 1961 after receiving many petitions to change import controls on residual fuel oil. This investigation was continued to determine whether present controls on this product should be continued, modified, or terminated in the interest of national security.

The effects of imports on the national security were also evaluated in the light of provisions of the Buy American Act (Public Law 428, 72d Congress) and the policy guidance of Executive Order 10582. Petitions for investigations of imports of heavy electric equipment and steam-turbine generators were filed under this act and executive order as well as under the Trade Agreements Extension Act of 1958. Results of investigations conducted under the separate acts were the same. (See table 3.)

The Council on Foreign Economic Policy reviewed the provisions of Executive Order 10582 at OCDM's request and concluded that the order should remain unchanged in the light of the current imports situation. At the end of FY 1961, OCDM was studying the application of the provisions of the order to the Government's procurement of hydraulic turbines.

PREPARATIONS FOR MOBILIZATION AND MANAGEMENT OF RESOURCES IN AN EMERGENCY

Plans for the mobilization and management of the Nation's resources under conditions of limited or conventional war and under conditions of enemy attack were reviewed and updated. Work progressed on the development of data and systems for supply-requirements studies and their evaluation for emergency use. Emphasis during FY 1961 was focused on efforts to improve the capability at all levels to mobilize and assure the prudent use of material and human resources available for emergency use. Need for this capability is most urgent at the local level. Therefore, local activity was directed at developing the managerial capability which would be required for postattack survival prior to reasonable expectation of help from State and Federal governments. Federal activity was concentrated on helping State and local governments develop capability for using postattack resources most effectively and in a manner consistent with national objectives.

OCDM, through its regional offices and in cooperation with other Federal departments and agencies, specifically concentrated on the following activities:

1. Completion of a series of regional conferences to indoctrinate Federal field personnel and State and local officials in resource management aspects of the National Plan and its resource annexes.
2. Development of regional resource data centers having basic data on the location, availability, and management of resources required for regional use in preattack planning and postattack operations.
3. Development of standards and guidelines for use by State and local personnel in strengthening their resource management capabilities through the use of Federal funds available under Public Law 85-606.
4. Preparation of regional resources plans and the expansion or updating of the resource features of State and local survival plans.

Progress in individual resource areas during FY 1961 is summarized in subsequent sections of this report.

Supply-Requirements Studies

Continued supply-requirements studies of survival items have led to the development of data which are now ready for machine programming. These data will provide the basis for recommending actions on stockpiling and other problems. Work also progressed on designing a computer model to measure the impact of nuclear attack on the total

economy and to identify resource management problems. (See *Resource Evaluation and Resource Management [Research and Development]*.)

The Department of Defense (DOD) and the Atomic Energy Commission (AEC) continued to provide OCDM with their mobilization requirements for many resources; e.g., fuels, materials included in the strategic stockpile, gases, and newer materials such as plastics. The requirements for the National Aeronautics and Space Administration (NASA) were included in DOD data.

Recent emphasis has been on determining supply requirements for special materials needed in space exploration, supersonic aviation, missiles, and specialized military and atomic energy developments. Many of these materials must have special properties and are subject to wide fluctuation in demand as the result of rapid changes of design and operational material; e.g., missile fuels. In addition, minute quantities of some materials are required for pilot projects. Until these materials become associated with prolonged operational projects, estimation of potential shortages is extremely difficult.

Supply-requirements studies to date have made no differentiation between requirements of limited and general war because sufficient basic nuclear bomb-damage analysis data have not been available. However, OCDM and DOD have practically completed their work on basic bomb-damage analysis. Application of the resulting data to obtain supply-requirements estimates differentiating between limited and general war will be a major problem of future studies.

Food and Water

Food.—During FY 1961 the United States Department of Agriculture (USDA) developed an emergency field organization by using its present field establishment. This organization will aid in carrying out the emergency planning functions delegated to USDA by OCDM and, if necessary, USDA's emergency food management responsibilities. Emergency planning committees have been formed in every State and county, and special arrangements are being made for some large metropolitan areas.

The Secretary of Agriculture authorized movement of 30 million bushels of wheat to the east coast for defense purposes. A comprehensive study was initiated to evaluate: (1) Availability of stored food to people; (2) availability of stored feed grains to essential livestock; (3) adequacy of ready-to-eat foods available to people; and (4) the Nation's postattack ability to resume food production, processing, and distribution.

An appendix to the *National Food Plan* (Annex 31 to the National Plan) and a USDA pamphlet on emergency food storage were de-

veloped. Additional appendixes on other aspects of managing food resources in an emergency were also being developed.

The Food and Drug Administration of DHEW conducted more than 30 training courses in food and drug inspection for appropriate personnel of the food industry and of all levels of government. Also, OCDM completed a series of training conferences with Federal, State, and local officials in each region to discuss and implement the *National Food Plan*.

In addition to continued emphasis on increasing emergency food inspection and management capabilities at all levels of government, plans were initiated for developing emergency capabilities of the food industry.

Water.—OCDM completed its series of training conferences with Federal, State, and local officials in each region to discuss and implement the *National Water Plan*.

Basic responsibilities for providing potable water in the event of an emergency have been delegated to local water supply utilities under the control of local government. But the Federal Government continued to provide preattack guidance to help improve their capability of performing this function. Appendixes to the *National Water Plan* (Annex 32 to the National Plan) to serve this purpose were being prepared.

DHEW, under delegation from OCDM, has responsibility for coordinating Federal planning for management of water resources in an emergency. The Public Health Service of DHEW has completed a study of 16 selected cities for which community water plans were developed. A suggested local plan based on this study is being prepared.

Based upon research being done for OCDM, the U.S. Geological Survey of the Department of the Interior is providing State and local governments with information on the location of ground water supplies which would probably be available for use in an emergency. The Housing and Home Finance Agency has completed an inventory of water supply systems in the United States and has distributed these data to its regional offices. OCDM regional offices also received copies of this information.

The DHEW Public Health Service, and the Business and Defense Services Administration and the Census Bureau of the Department of Commerce are processing recently gathered data on manufacturers of supplies and equipment for water systems. In addition, the Public Health Service, in cooperation with the Census Bureau, is surveying the inventories of supplies and equipment of water supply utilities. The major FY 1962 goal will be to increase the capacity of local water supply systems to provide potable water in an emergency.

Manpower

To promote effective mobilization and emergency management of the Nation's human resources, OCDM continued to develop and update manpower (1) emergency operational plans and procedures at all levels, (2) supply-requirements data, and (3) programs for reducing actual or anticipated supply deficiencies.

In FY 1961, OCDM concentrated on achieving State and local understanding of the *National Manpower Plan* (Annex 30 to the National Plan), and on developing manpower organization by cooperative relationships of manpower elements at all levels. For this purpose, OCDM-sponsored manpower conferences initiated in FY 1960 were completed in 45 States. Similar follow-up local conferences were sponsored by various States in 80 major labor market areas. OCDM planned to conduct local conferences in all major labor market areas by the end of FY 1962.

A direct result of field manpower conferences in 44 States was the review, updating, and amplifying of annexes to State plans to conform with the *National Manpower Plan*. Guidelines for this purpose were issued jointly by OCDM and the Department of Labor, and similar work was started in major local areas.

Action was initiated to strengthen emergency capabilities of local governments through joint effort of government, labor, and business. The core of this action was embodied in a prototype plan being actively developed and tested. It proposes to identify and predesignate groups of people by occupation, work relationship, and industry for performance of emergency activities closely related to their peacetime pursuits. Groups so identified and assigned within the framework of the community civil defense operational plan would become cadres or task forces automatically available for emergency postattack activities. Application of this concept in several communities during FY 1962 should result in developing procedures for installation of the plan in communities throughout the United States.

Through the Bureau of Labor Statistics, Department of Labor, OCDM continued to provide economic data for use in solving policy and emergency management problems. Estimates of the labor force for 250 areas, classified by industry divisions and 50 selected occupations by geographic subdivisions, were furnished to the National Resource Evaluation Center and OCDM regional offices. These data will be used in further developing methods and capabilities for estimating emergency manpower requirements. From a regional resource management pilot study, OCDM and the Department of Labor listed primary manpower responsibilities for assignment to Federal agencies and prepared procedures for submitting manpower requirements. The listed assignments covered all activities in the Standard Industrial

Classification List and emergency activities having no peacetime counterpart.

OCDM, in cooperation with the Regional Advisory Council on Nuclear Energy, sponsored a regional conference on meeting the manpower requirements for industrializing the economy of the South. Participating in the conference were top-level industrialists and educators from 16 Southern States. Some techniques developed at the conference and summarized in a report on *Manpower Resources in the South* are being used at the State level. Other regional conferences of this nature were being planned for other sections of the country.

OCDM continued to stimulate locally sponsored conferences for determining and encouraging the adoption of effective methods for using professional, scientific, engineering, and technical skills. In FY 1961, representatives of government agencies, professional societies, colleges, and industry, participated in nine such conferences throughout the Nation.

In July 1960, OCDM revised its policy on defense manpower in recognition of changed economic conditions and to relate the policy more closely to current defense needs. The revision strengthened the effectiveness of the policy in assisting areas of substantial and persistent unemployment in more effectively using available resources, maintaining productive facilities, and preserving management and employee skills important to the Nation's defense production potential.

OCDM conducts the National Defense Executive Reserve Program by authority of the Defense Production Act of 1950, as amended, and Executive Order 10660 of February 1956. Objectives of this program are to recruit and train qualified persons from the civilian economy for employment in executive positions in the Federal Government in the event of national emergency.

At the end of FY 1961, 18 Federal departments and agencies of the Government were active in the program and had designated more than 2,600 reservists. Excepting the National Training Conference of the National Defense Executive Reserve, held biannually under OCDM auspices and direction, each agency is responsible for training its reservists. Participating agencies during the past year emphasized recruiting and training at the regional level.

Fuel and Energy

During the year OCDM continued activities to strengthen mobilization readiness in oil, gas, solid-fuel, and electric power industries and to develop capability to manage these resources under emergency conditions. Actions to strengthen the mobilization base included:

1. Continued review and development of procedures for reporting work performed by the Department of the Interior in long-range study of petroleum supply and demand.

2. Work with the Department of Defense and the Department of the Interior in developing organization and methods to obtain necessary assistance of the petroleum industry in preparing a worldwide study of wartime petroleum problems, including military requirements, attack damage, and fallout hazard limitations.
3. Review of foreign developments affecting availability of oil to the United States and its allies in emergencies.
4. Work with other agencies in developing United States petroleum policy relating to the North Atlantic Treaty Organization (NATO), and participation in Washington meetings of NATO Petroleum Planning Committee.
5. Completion of site selection and preliminary design of East Coast offshore emergency loading facilities for petroleum products and of a survey of existing Gulf Coast facilities for this purpose.
6. Updating and revising recommendations for improving conditions of the soft-coal industry.
7. Analyzing FY 1960 survey of electric power in the Greater Los Angeles area, helping implement recommendations of Alaska (Anchorage-Fairbanks) area power survey completed in 1959, and continuing the survey of other Alaskan areas started in FY 1960.
8. Identifying inventories and usage of manufacturers and major electric utilities relating to selected electric-power survival items; e.g., line materials, transformers, tools, and repair trucks.

To develop capability at all levels of government for managing fuel and energy resources in an emergency, OCDM held five regional conferences. Representatives from all levels of government and industry attended these conferences where the *National Energy and Minerals Plan* (Annex 33 to the National Plan) was discussed and explained.

Under earlier executive orders and Emergency Preparedness Order No. 7 issued by OCDM on January 10, 1961, the Department of the Interior, subject to policy direction and central program control of OCDM, is the principal agency responsible for emergency planning for fuel and energy. This department also has postattack responsibility for operational direction and control of fuel and power industries. OCDM has continued to work closely with the department to build up the emergency organization for management of fuel and energy resources. For management of electric power, a fairly complete standby emergency organization exists. Substantial progress was made in recruiting executive reservists from oil and gas industries to serve as key emergency employees of the Department of the Interior at OCDM regional, State, and important local posts. At the end of FY 1961, the Department had a full-time oil and gas employee at each of four OCDM regional offices and was appointing

a fifth employee at an additional regional office. Development of resource management capability at State and local government levels depends largely upon the presence of at least one full-time qualified person at each OCDM regional office.

Production and Materials

By authority of the Defense Production Act, as amended, and under OCDM guidance, the Business and Defense Services Administration (BDSA) of the Department of Commerce, continued to maintain a defense materials system. This system assures availability of critical materials regularly needed by the Atomic Energy Commission (AEC) and the Department of Defense (DOD) by providing quarterly allotments of steel, nickel alloys, copper, and aluminum products. The system is readily adaptable for providing allocations which may be required as a result of increased demands and international tensions.

Delegate agencies, under OCDM supervision, continued studies and actions to insure adequate supplies of critical industrial components, including jewel bearings, marine turbines and gears, precision optic materials, hydraulic turbines, transistors, and about 60 other items. For example, an advisory committee is determining how to provide an adequate source of jewel bearings.

OCDM and BDSA completed an initial study on the vertical chain of production of selected survival items. The purpose was to develop techniques for vertical production analysis. The indispensability, possible substitution, and number of producers (their location and concentration) of each critical raw material and component required for a selected end product were analyzed. The results were also analyzed in relation to damage factors. To perfect the techniques and determine their use for mobilization planning, OCDM has authorized more advanced study to be supervised by BDSA.

A joint project of OCDM, the Department of Defense (DOD), and BDSA was continued to seek information needed in the ultimate preallocation of contracts for survival items. Analyses of information on the problem of increasing postattack production of survival items by conversion of surviving plants were completed. It was concluded that such conversion would have very limited possibilities of satisfying heavy postattack requirements for health survival items. Other methods for supplying postattack health survival items were therefore under consideration in this continuing project.

Through the Interagency Industry Evaluation Board, OCDM continued to identify industries essential to national defense and survival. During FY 1961, 21 industrial analyses covering 51 industrial subjects were made.

An OCDM task group completed a plan for establishing resource regional data centers. The plan provides guidance on policy, mission, functions, scope, depth, procedures, and organizational requirements for establishing such centers. The manifest need for a centralized OCDM regional source of information on preattack resources and plans and guidance for their postattack management prompted the task group's action. Adoption of the plan was pending at the end of FY 1961.

A series of regional meetings with industrial groups and representatives of all levels of government was started in FY 1960 and completed in FY 1961. The objectives of these meetings were to (1) explain production and materials programs and how they would function during preemergency and postattack periods and (2) encourage State and local governments and industry to develop their own emergency plans and organizational and operational readiness to administer them.

OCDM developed guidance material on (1) release and distribution of strategic and critical materials from Federal inventories, (2) use of surplus and idle Government production equipment, (3) industrial mutual aid, and (4) preparation of State plans for emergency management and continuity of production. The section of Plan D-Minus dealing with industrial production and minerals mobilization was revised to provide for its emergency implementation in accordance with current readiness measures and policy. Revisions were also started on the corresponding section of Plan C. (See *Readiness Plans*.)

Construction and Housing

OCDM developed policy and plans for emergency use of essential construction resources at all levels of government. The plans included major military, utility, home, industrial, agricultural, commercial, and government construction resources. Major FY 1961 emphasis was on postattack planning for repair, rehabilitation, and construction of housing. Progress was principally as follows:

1. The *National Emergency Housing Plan* (Annex 42 to the National Plan), which explains the emergency housing responsibilities of all levels of government, was distributed nationwide. Under preparation were appendixes to this plan on repairs to damaged housing, and the assembling of emergency housing units requiring minimum materials.
2. Conferences were held in all OCDM regions with representatives of Federal agencies and State governments to discuss housing responsibilities and plans already developed for emergency use.

- Conferences were also underway between State civil defense and housing personnel to establish a clear understanding of their interrelated responsibility for postattack emergency housing.
3. The Housing and Home Finance Agency (HHFA) established an emergency field service to become operational upon declaration of civil defense emergency. This service will provide an integrated organization to carry out all emergency housing duties based on standby authority and orders prepared by HHFA and placed with agency field personnel.
 4. HHFA appointed a planning coordinator at each of three OCDM regional offices to help the States plan for emergency housing. Similar appointments will be made for other regional offices of OCDM.

Economic Stabilization

The *Emergency Economic Stabilization Plan* (Annex 27 to the National Plan) was issued early in FY 1961. It describes the basic economic stabilization policies and objectives to be pursued in limited war or general war with attack on the United States. It also outlines stabilization responsibilities of Federal, State, and local governments. Operating appendixes to Annex 27, for guidance of State and local officials in implementing postattack policies and objectives, were drafted for review and discussion at regional, State, and local levels. They cover emergency price stabilization, consumer rationing, rent stabilization, banking and monetary operations, wage and salary stabilization, and regional and State standby and operational organizations. Some classes of consumer goods present especially difficult post-attack rationing problems; e.g., distribution of drugs and medicines. OCDM and DHEW have coordinated their efforts to obtain assistance of the medical profession in dealing with this problem.

The Department of the Treasury, the Federal Reserve Board, the Federal Home Loan Bank Board, the Council of Economic Advisers, and other financial agencies helped formulate policy and procedural recommendations for the emergency restoration, continued functioning, and stabilization of the monetary and economic systems in the undamaged or relatively undamaged areas during the postattack period. The Housing and Home Finance Agency assisted OCDM in developing plans for emergency rent stabilization, and the Department of Labor assisted in preparing emergency wage and salary stabilization plans.

OCDM presented emergency economic stabilization plans to officials of all levels of government and to representatives of industry, business, and financial establishments at meetings held for a selected aggregate audience of about 900 individuals at New York City, San

Francisco, and Chicago. Similar meetings were scheduled to be held during FY 1962 in the other OCDM regions.

Emphasis at the regional level during FY 1961 was on directing and coordinating the development of emergency stabilization preparedness capability at State and local levels. For this purpose, the following actions were taken: (1) Executive reserve organizations were established and strengthened; (2) postattack jobs to be accomplished by regional, State, and local units on an interim basis were identified; (3) model State economic stabilization plans were prepared; and (4) OCDM asked State Governors to solicit cooperation of their governments in working with OCDM to develop State stabilization preparedness programs.

Telecommunications ⁴

Mobilization planning for telecommunication is based upon Executive Order 10705. It delegated, to the OCDM Director, the President's authority over United States telecommunication following enemy attack upon the United States or upon declaration of war.

During FY 1961, plans for organizing and staffing a unit responsible for performing emergency telecommunication control functions were updated. Classified radio frequency usage plans were kept current, and plans for Government use of certain common carrier communication channels to overseas points were adapted to new facilities and requirements.

A priority system governing restoration of existing private-line telephone and telegraph service during an emergency has been used voluntarily throughout the Nation for several years. During FY 1961, an additional priority system was developed to provide for new or modified intercity private-line service during an emergency. After this system has been coordinated with communication common carriers who would be governed by its provisions, it will be maintained as a standby system for immediate mandatory use if needed.

Industry continued to participate in the preparedness effort. The telephone industry began installing a hardened underground transcontinental coaxial telephone cable with repeater and switching stations in underground concrete vaults. The telegraph industry started construction of a cross-country microwave system scheduled for completion in October 1962. In addition, the telegraph industry was building a dual-purpose alternate facility similar to the facility already completed by the telephone industry. The new facility will serve as an emergency operational control and management center for the nationwide telegraph network.

⁴ See *Warning and Communications* under *Research and Development* for information on pertinent research.

Use of submarine cables reduces vulnerability of overseas telecommunication to electrical interference. Additional cables of this type were being installed and their scheduled completion dates were: New York-Bermuda (late 1961), Florida-Jamaica (late 1962), Jamaica-Venezuela (early 1963), and Hawaii-Guam-Japan (late 1963). An additional cable between the United States and the United Kingdom was being planned for completion late in 1963.

Under Executive Order 10460, OCDM is also responsible for assisting and advising the President on telecommunication affairs of the executive branch. In this capacity, OCDM promoted executive branch implementation of agreements adopted by the International Telecommunication and Radio Conferences held at Geneva, Switzerland, in 1959. These new obligations included international frequency allocations, procedures for international registration and protection of national frequency assignments, and measures for improved use of the frequency spectrum. The Interdepartment Radio Advisory Committee (IRAC) and the Federal Communications Commission (FCC) jointly adapted United States frequency allocations to conform with agreements of the 1959 Geneva conferences. IRAC and FCC also began to extend the scope of allocation planning and the national frequency table to cover approximately 1 million megacycles.

Preparations were continued for a proposed 1963 Extraordinary Administrative Radio Conference at which international radio frequency allocations for space telecommunication will be considered. After completion of a survey in which each Federal agency had an opportunity to estimate circuitry and radio spectrum allocations required to support its space programs during the next 10 years, the IRAC prepared preliminary proposals which were approved by OCDM and FCC for discussion with industry and with other countries. Such advance coordination should help in the development of ultimate proposals to the conference which will accommodate United States space operations and achieve international agreements.

To help assure availability of suitable radio frequency bands for space telecommunications pending international agreement, an interim review procedure was established. Under this procedure, OCDM reviews Government agency requests for use of such frequency bands and applies criteria especially developed for this purpose.

During FY 1961, OCDM issued the following guidance materials to promote efficient and economic use of telecommunication services by Federal agencies: (1) A policy statement on management practices in the use of military telecommunication services, (2) management standards for telecommunications of Federal agencies, and (3) national standards for basic technical characteristics of single side-

band for use in voice communications between 30 megacycles in the mobile services.

Transportation

OCDM continued to correlate mobilization transportation planning of the Federal Government. Although many agencies have an interest in transportation, six Federal agencies primarily engaged in transportation activities are: the Bureau of Public Roads, Defense Air Transportation Administration, and Maritime Administration of the Department of Commerce; and the Civil Aeronautics Board; the Federal Aviation Agency; and the Interstate Commerce Commission. In addition, three agencies engaged substantially in transportation activities are the U.S. Coast Guard, the U.S. Corps of Engineers (civil works) of the Department of the Army, and the General Services Administration.

The *National Transportation Plan* (Annex 34 to the National Plan) remained the guiding document on transportation policy and procedures. The major FY 1961 objective was to implement it on regional and State levels. Achievement of this objective was advanced by transportation conferences held in each of the eight OCDM regions. These conferences, attended by Federal and State representatives, covered the composition of an emergency transport agency, the nature of government control measures, and suggestions for improving local plans. Many States held similar conferences as a result of these meetings.

The Transportation Committee of the National Association of State Civil Defense Directors expressed agreement with Federal policy to leave emergency transportation management under industrial control to the extent possible. This action should help overcome a major difficulty in many States which have maintained that State and local governments would be required to assume operational control over industrial transportation services within their borders during any emergency.

Drafts of five appendixes to the *National Transportation Plan* were developed. They covered the subjects of emergency organization, priorities for movement, traffic forecasts and allocations, transport capability analysis, and guidance for State planning. Classified national plans were modified to support procedures for movement priorities and traffic allocations and forecasts.

Major revisions were undertaken in the air priorities system, plans for employment and use of small aircraft and watercraft, permit procedures for export traffic, and routing and diversion procedures for domestic surface transport.

In cooperation with other Federal agencies, OCDM continued to strengthen measures for administration of an emergency transport agency. Other accomplishments included consolidation of indispensable records, selective assignment and training of National Defense Executive Reservists, improvement in data collection and damage assessment techniques, closer cooperation with DOD and NATO on joint studies and exercises, and improved liaison with States.

OCDM exerted increased influence in justifying public works and other executive branch projects for national defense; e.g., Alaskan railroad and highway needs, the Cross-Florida Barge Canal, the Venice City Canal bypass, railroad mergers and government loans, a proposed national transportation census, and intelligence projects of economic trends.

A seminar on transportation conducted by the National Academy of Sciences at Woodshole, Mass., and an OCDM project with Stanford Research Institute for determining truck inventories improved the analysis of transport capabilities. Additional specifications were prepared for research projects in national commodity flow, computer capability for postattack transportation and traffic control, and analysis of air transport and waterway systems. The National Defense Transportation Association, in a pilot project without cost to the Government, is voluntarily helping OCDM obtain a general transport inventory.

In response to the President's message to the Congress emphasizing the importance of increased mobility in national defense (March 28, 1961), OCDM began to determine the feasibility of using surplus and reserve transport facilities for standby mobile hospitals, communications units, power-generating sources, and emergency feeding vans. The chief objective planned for FY 1962 is to increase transportation industry readiness by a series of seminars on industrial continuity, radiological defense and shelter, and government transportation control.

SUPPORTING FUNCTIONS

RESEARCH AND DEVELOPMENT ¹

Research projects were primarily developed, coordinated, and administered to use scientific principles and knowledge in solving the nonmilitary defense problems. Prevailing policy was to use applicable research and research facilities available from Federal, private, and foreign sources.

During FY 1961, OCDM invested approximately 75 percent of its research funds in support of projects carried on by Federal agencies or nonprofit institutions, including educational institutions and research centers. By coordinating its research activities within the Government, OCDM has avoided duplication and used its funds most efficiently. The balance of FY 1961 research obligations was with private research organizations having skills and capabilities not available within Government or other nonprofit institutions.

Of the \$4 million FY 1961 research appropriation, OCDM designated \$2.5 million for prototype shelter construction and shelter surveys. A total of \$2.2 million, including unobligated funds from earlier appropriations, was designated for research in such fields as radiological defense, operations research on broad systems of nonmilitary defense, shelter habitability and engineering tests, and social science studies.

The OCDM Technical Library established in 1958 remained an important focal point for acquiring, organizing, and disseminating research information. At the end of FY 1961, the library contained more than 7,500 documents on biophysics, economics, medicine, engineering and physical sciences, social sciences, and operations research. The library distributed reports on research and test operations, published periodic annotated lists of library acquisitions, and made its resources available not only throughout OCDM but also to its research contractors, other U.S. Government agencies, the Canadian Government, and NATO Governments.

Radiological Defense

Three projects on development of radiological instruments were completed:

- (1) The Jordan Electronics Division of the Victoreen Instrument Co. produced new prototype shelter survey meters following redesign of an existing prototype radiological remote-reading shelter survey meter.

¹ See also *Resource Evaluation*.

- (2) The Victoreen Instrument Co. also designed and manufactured prototype radiological survey meters combining the range, accuracy, and other general operating characteristics of the V-710 and V-720 survey meters. This instrument (V-716x) has four ranges for measuring gamma dose rates (0-0.5, 0-5, 0-50, and 0-500 roentgens per hour) and is capable of indicating beta radiation on all ranges.
- (3) A prototype self-charging dosimeter (same range as the V-730, 0-20 roentgens) was developed by the Bendix Corp.

Developmental studies of a variety of radiological instruments and systems included:

- (1) A radiation monitoring system being designed and developed by the Southwestern Industrial Electronics Co.
- (2) Continued work on radiological instruments suitable for use by the general public. A prototype citizen's survey meter was being developed by Anton Electronics Laboratories and the Bendix Corp. The Victoreen Instrument Co. was developing a prototype citizens' dosimeter having a self-charging feature. The U.S. Naval Research Laboratory continued investigation and development of solid state detectors for possible use in citizens' survey instruments.

The Oak Ridge National Laboratory is engaged in the design and manufacture of prototype radiological survey meters to be used in the measurement of ground-level dose rates by low flying aircraft. The prototype aerial-radiation survey meter will be flight-tested and evaluated under simulated emergency conditions in the Milwaukee metropolitan area.

Prototype instrument calibrators have been developed by Anton Electronic Laboratories and are undergoing further refinement and testing.

The Bendix Corp. initiated the modification of a standard CDV-715 radiation survey meter to provide a remote detector attachment for measuring dose rates at some distance from the meter. A prototype loud-speaker attachment, suitable for use with the V-700 geiger counter survey meter as a classroom training aid, is being developed by Randam Electronics, Inc.

The Oak Ridge National Laboratory is designing a general purpose monitoring instrument for control center use in remote measurement of gamma dose rates in the 1 to 1,000 roentgens per hour range.

The Naval Radiological Defense Laboratory (NRDL) is continuing studies in radiological reclamation and countermeasures. Studies during FY 1961 included experiments using a fallout simulant tagged with a radioisotope prepared by a technique developed by NRDL.

This simulated fallout was used in experiments to determine the operating rate and effectiveness of motorized equipment such as vacuum sweepers and street flushers on paved areas. It was also used in engineering tests of full-scale roof washdown systems. Three full-scale decontamination experiments were conducted on a large multibuilding area target complex. Tests were performed under dry, wet, and high-wind conditions corresponding to variable weather conditions.

Work was continued on water decontamination projects. Concluding field tests of conventional processes were being conducted by the U.S. Army Engineer Research and Development Laboratory. The effectiveness and feasibility of using the new chemical coagulant called polyelectrolytes for water decontamination on the municipal level was being investigated at the University of Florida. Methods of decontaminating small amounts of water for individual or family use were being investigated by the University of California. These investigations included studies on ion exchange resins and on possible multicomponent ion exchange systems. The results will serve as basic design criteria for developing an individual or family type decontamination unit.

The University of California Institute for Engineering Research, under the Civil Defense Research Project, studied the problems of radiation penetration, radiological defense operations, theoretical fallout estimation and monitoring systems, and procedures for assessment and control of the hazards of fallout in water supply systems. Studies of radiation penetration theory by the National Bureau of Standards concentrated mainly on analyzing and reporting data obtained.

Technical Operations, Inc., of Burlington, Mass., completed studies in radiological defense operations research and made substantial progress in applying miniature scale models for evaluating structural protection against fallout radiation.

The Office of Saline Water Conversion of the Department of the Interior cooperated with OCDM research personnel in a study of the feasibility of using solar distillation units for family fallout shelters. The Water Resources Division of the U.S. Geological Survey was conducting pilot scale studies on the availability of wells in the vicinity of potential target areas and on the time of low of major rivers and streams. The Oak Ridge National Laboratory was testing various water decontamination processes through normal daily use of its low level waste water treatment plant. The U.S. Public Health Service of DHEW and Wayne State University were developing methods for rapid radiochemical analysis of radioactive fission products. OCDM continued working with the U.S. Corps of Engineers

and the Public Health Service on a field test study involving radioecology and water decontamination.

Shelter

Development and design.—Arthur D. Little, Inc., completed analysis and evaluation of field and laboratory test data on antiblast closures for shelter ventilation and on modified prototype blast valves. Work was also underway by the same organization in fabricating prototype blast valves and performing supplementary engineering services relating to the improved OCDM blast valves.

The Defense Atomic Support Agency, Army Ballistics Research Laboratory, and OCDM planned to participate with Canada in a 100-ton high explosive shot scheduled for August 1961. OCDM planned to use this opportunity for testing several sizes of the prototype blast valves at overpressures of $3\frac{1}{2}$ and 35 pounds per square inch. Further testing of the valve was planned to be made in the blast simulator at the Naval Civil Engineering Laboratory.

The Public Health Service nearly completed its work on prototype shelters in new and existing general hospitals including basement shelters and protected areas, design studies, plans, specifications, and cost estimates.

The Armour Research Foundation completed study of existing test methods, scale-model tests, and new testing techniques by which it sought to determine the most profitable means of testing blast effects. Consoer, White, and Hersey, representing a joint venture of separate firms, were completing engineering and architectural research for use in protecting public utility plant facilities and personnel from the effects of nuclear weapons. The Army Chemical Corps has undertaken studies of air filters and diffusion board (or felt) for use in protecting shelter occupants against gas and germ warfare.

OCDM prepared guidelines for research projects involving shelters constructed under the Prototype Shelter Program.

Urban vulnerability reduction.—The study conducted by CEIR (formerly the Corporation for Economic and Industrial Research), Inc., with OCDM support was concluded. This study, in cooperation with the National Capital Planning Commission and the General Services Administration, sought to provide a system for locating Federal office facilities in the National Capital area based upon its projected growth and expansion for the next 40 years.

Shelter habitability.—OCDM continued to sponsor research on the major problems that would be caused by shelter living conditions. Six projects completed during FY 1961 were:

1. Studies by the Department of Agriculture on improving stability of selected foods required for preattack shelter storage.

2. Studies by the Navy Medical Research Laboratory on the psychological and physiological effects of aerosols and atmospheric ionization under conditions comparable to those expected in underground shelters.
3. A study by the American Institute for Research on methods for meeting sociological and psychological needs of persons based on simulated shelter conditions.
4. A related series of 100-man shelter occupancy tests conducted by the Naval Radiological Defense Laboratory.
5. Initial phases of simulated occupancy studies by the National Bureau of Standards on selection of engineering equipment for control of shelter temperature, humidity, condensation, and air content (oxygen, carbon dioxide, and contaminants). Analytical studies will be continued in this field.
6. A study by the Pacific-Southwest Forest Range Experiment Station, Department of Agriculture, on clearance areas required around shelters to protect occupants from poisonous gases and heat generated by mass fires.

Dunlap and Associates, Inc., continued preparation of a manual of instructions for use by occupants in family shelters during radioactive fallout periods. The Disaster Research Group, National Academy of Sciences, continued its review of literature on shelter habitability. The Public Health Service, DHEW, made substantial progress in its study of emergency medical care in shelters and medical self-help for shelter occupants. The Army Medical Research and Development Command continued to work on the development of new immunizing antigens and improvement of existing agents to provide greater protection against infectious and contagious diseases.

Warning and Communications

Projects completed during FY 1961 were:

1. Design of a mobile communications unit by Designers for Industry, Inc. Suitable for cities of 10 to 100 thousand population, the unit provides for simultaneous operation of several radio receivers concurrently with operation of several transmitters.
2. Development by Stanford Research Institute of a prototype voice modulated air column siren of extremely high power.

Communications systems studies on use of the radio spectrum were continued. Conducted by the National Bureau of Standards, these studies included:

1. Possibility of more efficient assignment of spectrum to permit its maximum use for civil defense emergency communications.

2. Development of advanced techniques and standards for improving use of the spectrum based upon identifying and applying information and/or communication factors affecting long-range radio communications systems.
3. More efficient use of spectrum by identifying and developing application of new techniques, operational and management procedures, and equipment.

OCDM obtained patent rights to the National Emergency Alarm Repeater (NEAR) system by contract with Midwest Research Institute, the organization responsible for developing the system under earlier contracts.

Resource Management

OCDM has conducted most research in this field through contracts with nongovernment organizations. Major projects included: (1) A consumer rationing seminar, (2) an industrial vulnerability study emphasizing dependence of production on available supporting industries, (3) a preliminary analysis of potential role of Latin American countries in providing survival and recovery support to the United States, and (4) a pilot study of available manpower skills.

The most important research in this field is the current development by the National Planning Association of a computer model called Program Analysis for Research Management (PARM). Through combined use of machine and manual procedures, PARM will facilitate and expedite the generation of feasible production programs to meet the most urgent United States civilian, military, and allied requirements. Based on stipulated production priorities for end items, the system will be designed to estimate essential inputs to production and take into account available plant capacity, materials, and manpower. Simulating scheduled operation of the industrial economy, PARM will anticipate production bottlenecks in time for them to be eliminated. PARM test operations are planned for FY 1962.

Advantages anticipated from use of PARM are: (1) Expediting of decisions on broad programs of postattack priorities and allocations; (2) preattack application in developing effective preparedness measures, developing skills and knowledge applicable to postattack resource management, and detecting present weaknesses; (3) evaluation of feasibility and effects of production programs proposed for limited wars; (4) better understanding of economic warfare effects; (5) peacetime application to estimate effects of proposed programs for improving the mobilization base, stimulating economic growth, and changing industrial processes.

An additional help to resource management are the manual procedures, developed and improved at NREC, for estimating and evaluat-

ing cost and effectiveness of programs, systems, and procedures of non-military defense. These procedures use broad analytical concepts for evaluating cost and effectiveness of interrelated nonmilitary defense systems and their components.

Social Sciences

Projects completed during FY 1961 were:

1. Classroom testing, by Harbridge House, Inc., of case studies previously prepared for use in OCDM training courses.
2. An evaluation of effectiveness of OCDM training courses by Applied Psychological Services, Inc.
3. A survey by Denver Research Institute on identifying and overcoming resistance attitudes toward building or purchasing family fallout shelters.

OCDM supported the National Association of County Officials in conducting a study of civil defense responsibilities of local government officials. The National League for Nursing, Inc., reported considerable progress in continuing its development of a national nursing education plan. New projects started during FY 1961 included:

1. Design and development of a management exercise by Sperry Rand Corp. for use in the OCDM Staff College in simulating nonmilitary defense problems.
2. Work by the University of Wisconsin to determine nonmilitary defense training and educational needs of the general public and of local governments (officials, regular employees, and auxiliary personnel).
3. A survey by Opinion Research Corp. to (a) determine public attitude toward, and knowledge of, civil defense personal survival measures and (b) identify and suggest methods for overcoming any psychological resistance which may exist relating to building and using home shelters.
4. A study by George Washington University to ascertain means and methods for gaining general public and local public officials' support and acceptance of programs for constructing dual-purpose underground classroom fallout shelters in schools.

Policy and Advisory Research

OCDM retained the services of several committees of the National Academy of Sciences:

1. The Advisory Committee on Civil Defense provided advisory services on nonmilitary, scientific, and technical research problems.

2. The National Research Council Medical Research Advisory Committee provided information on special studies, surveys, and analyses of medical and related problems.
3. The Committee on Fire Research provided stimulus and advice on research for new techniques and knowledge in prevention and control of fire.

A joint OCDM-National Research Council Advisory Committee on Behavioral Research was formed to deal with behavioral problems by (a) evaluating them and recommending solutions, (b) providing pertinent scientific and technical information, and (c) stimulating scientific research and liaison. In addition, OCDM contracted with Stanford Research Institute for research on national defense policy, civil defense plans, resource management, and technical support.

Other Research

Developments of equipment research resulted in:

1. OCDM completing specifications for an emergency water chlorinator and drafting specifications for a small diesel-driven generator (2 to 15 kilowatts).
2. Army Chemical Corps submitting final test and development reports on an infant protector against chemical, biological, and radiological agents. Final test report on civilian protective mask was also made, but the development report remained in preparation.
3. Continued work by the Ballistics Research Laboratory to improve test instruments for measuring stress, strain, and acceleration; e.g., their effects on structures, devices, and components subjected to dynamic loads.

Jointly with the Department of Defense, OCDM continued to support the basic fire research program recommended by the Committee on Fire Research of the National Academy of Sciences and conducted by the National Bureau of Standards. The Forest Service of the Department of Agriculture completed its research on fire control to determine techniques most economical in use of time and resources.

Stanford Research Institute and the OCDM staff continued research analysis on nonmilitary defense systems for providing food, transportation, warning and operational information under fallout conditions. Undertaken and completed by Stanford Research Institute was a study of air defense and civil defense after 1965. Continued and almost completed by the same organization was a study of U.S. vulnerability to chemical and biological warfare.

Continued health and medical research (see *Shelter* and *Health Services*) resulted in completion by the University of Washington of

an evaluation of stockpile storage of fluothane and chloroform. The National Academy of Sciences, with OCDM support, continued its study of blood and blood derivatives. Other health research continued was (a) the Naval Radiological Defense Laboratory's study of acute and delayed effects of ionizing radiation and (b) the American Psychiatric Association's work, in cooperation with OCDM and U.S. Public Health Service, on emergency use of mental hospitals.

TRAINING AND EDUCATION

OCDM continued to concentrate its training and education activities on developing leadership necessary for (1) operational readiness at all levels of government and (2) training and educating the public for national survival and recovery. To achieve these objectives, OCDM worked through its four schools, leaders of public and private schools, and leaders of major national organizations. Training and education activities were conducted by authority of the Federal Civil Defense Act of 1950, as amended (Public Law 920, 81st Congress, as amended by Public Law 85-606).

Schools and School Programs

Through traveling instructor teams and its four schools, OCDM offered 205 courses during FY 1961, and the number of graduates exceeded 7,700 persons, increasing the total number of graduates to more than 30,000. Attending regular courses were leaders, auxiliary workers, and instructors from all levels of government. Representatives from special groups, such as industry and the clergy, attended special courses. Schools in operation were the Staff College, and the Chemical, Biological, and Radiological Defense School, Battle Creek, Mich.; Eastern Instructor Training Center, Brooklyn, N.Y.; and Western Instructor Training Center, Alameda, Calif.

OCDM trained about 2,500 persons in radiological defense during FY 1961, including 1,500 instructors. These instructors will help train monitors required for the radiological monitoring network stations. (See *Radiological Defense*.) As a result of earlier training and education programs, selected high schools and colleges have approximately 15,000 radiological kits (see fig. 14) to help them incorporate radiological defense education into science curricula and strengthen the Nation's monitoring capability. Through this program, an estimated 4 million students have received some instruction in radiological defense.

OCDM trained more than 5,200 additional leaders, instructors, and representatives of special groups through courses designed to support special programs such as continuity of government, emergency operations, shelter, and resource management. Governments at all levels

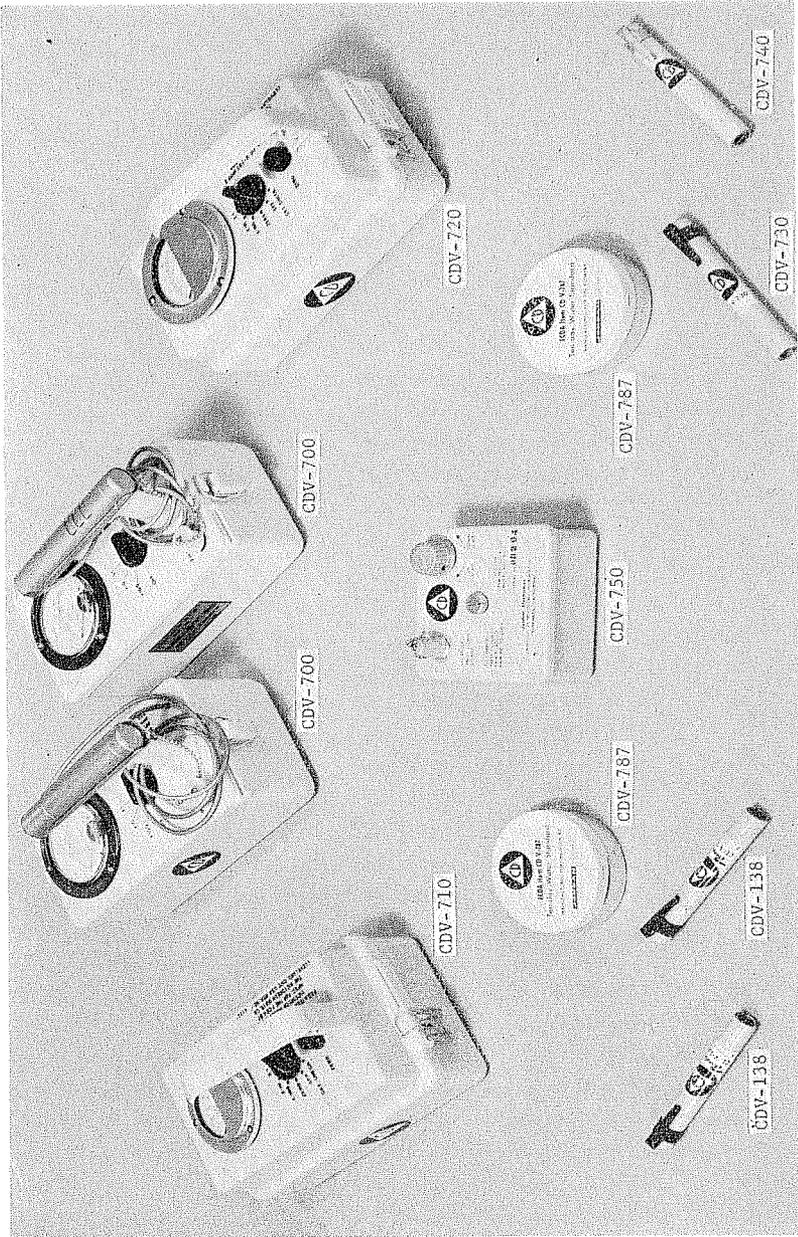


FIGURE 14.—Radiological kit for high schools.
(See bottom of page 77 for item identification)

were provided training materials and assisted in developing and implementing training plans and programs. OCDM approved State applications for Federal matching funds in support of approximately 5,000 State and local training courses. The Internal Revenue Service of the Treasury Department, the Public Health Service of DHEW, and the Emergency Welfare Services in the Bureau of Public Assistance of DHEW were assisted extensively in preparing training programs for their personnel.

Through extended work with the U.S. Office of Education of DHEW and with other leaders of major national education organizations, OCDM has been able to convey the urgency of relating civil defense to the broad educational objectives of the Nation's school systems. Educational organizations have accordingly cooperated with OCDM in preparing supporting publications. For example, the American Council on Education's material is currently being prepared for direction to college and university administrators.

Colleges and universities were encouraged to teach accredited specialized civil defense courses via classrooms, extension service, and television. To promote professional capability in the shelter field, several architectural and engineering schools were cooperating by teaching principles of shelter evaluation, design, and construction; e.g., during FY 1961, one professional school in each OCDM region conducted seminars for this purpose.

OCDM helped schools and colleges develop protection programs, and to incorporate civil defense material into their curricula. By contract with the University of California in Los Angeles (UCLA) in cooperation with the National Council on Social Studies and the National Science Teachers Association, curriculum material was developed for secondary schools. In addition, about 450 high schools participated in the design and construction of home shelter units as an education and demonstration project sponsored by OCDM to assist vocational teachers in developing a knowledge of shelter construction for subsequent classroom application. (See *National Shelter Policy—Prototype shelter construction.*)

FIGURE 14.—Radiological kit for high schools. (See page 76)

- 2 CDV-700 (Low Range Survey Meters)
- 1 CDV-710 (Medium Range Survey Meter)
- 1 CDV-720 (High Range Survey Meter)
- 1 CDV-730 (Dosimeter—0-20 Roentgen)
- 1 CDV-740 (Dosimeter, Self Reading—0-100 Roentgen)
- 1 CDV-750 (Charger for Self Reading Dosimeter)
- 2 CDV-787 (Comparison Standards, Food and Water)
- 2 CDV-138 (Dosimeters—Training)

OCDM continued to operate and expand its Civil Defense Adult Education Program through regular adult education channels and the U.S. Office of Education. Established to support the National Shelter Policy and to provide adults with civil defense education in weapons effects and principles of individual, family, and community protection, this program operated in seven States: California, Florida, Kentucky, Louisiana, Minnesota, Nebraska, and Texas. State instructor training teams have trained more than 5,500 local teachers who subsequently have conducted adult education classes from which approximately 145,000 persons have been graduated. In FY 1961, about 3,100 of these teachers were trained, and more than 90,000 persons were graduated from adult education classes. According to scheduled plans, this program will be extended to eight additional States in FY 1962.

Nongovernment Organizations ²

OCDM continued to work with leaders of major national organizations for support of its programs and policies. Cooperative response from these leaders and organizations was clearly evident in their support of the National Shelter Policy, the continuity of government principles, and civil defense survival education. Specific outstanding examples were:

1. Fallout shelter construction.
 - a. The Junior Chamber of Commerce constructed 38 demonstration shelters in addition to its 11 shelters completed prior to FY 1961.
 - b. The American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) building trades provided free labor, and the Structural Clay Products Institute and local masonry suppliers generally donated materials, for construction of 130 family fallout shelters. These shelters, located in 34 States and the District of Columbia, included a mobile (trailer) shelter for which local business establishments furnished materials.
 - c. The United Presbyterian Church, Trenton, N.J., was constructing a prototype home shelter in its manse.
 - d. The Fraternal Order of Eagles Lodge at Grafton, N. Dak., and the Loyal Order of Moose Lodge at Maywood, Calif., each built prototype community demonstration basement shelters.
 - e. Other organizations which strongly supported shelter construction included the American Legion, Veterans of Foreign Wars,

² See also *Industry Defense and Health Services*.

Air Force Association, Catholic War Veterans of U.S.A., Jewish War Veterans of U.S.A., Veterans of World War I, Disabled American Veterans, Optimist International, Fraternal Order of Eagles, Retired Officers Association, and Toastmasters International. Civic, fraternal, and veterans' organizations formed a committee under the name of *National Organizations for Civil Defense Action* to support shelter construction and other civil defense activities.

2. Information and training.

- a. AFL-CIO distributed survival information to 10 million families, sent detailed instruction and OCDM-approved designs for shelter construction to 2.9 million members, and wrote 2.5 million letters to its affiliates urging shelter construction. Four AFL-CIO summer schools and 3 State seminars offered civil defense instruction, and community service units in more than 40 cities conducted training in disaster services. The Industrial Union of Ship Builders called on its members to train in radiological defense.
- b. More than 2 million kits were distributed to women to help them complete family survival arrangements.
- c. Approximately 1.7 million persons attended meetings held by rural civil defense leaders in 37 States and more than 35,000 inspected a fully equipped fallout shelter displayed as part of a model farm home.
- d. Approximately 800 clergymen attended OCDM courses or conferences, and 5 religious magazines carried articles on church shelters.
- e. American Legion members from 29 States attended special courses conducted for them by OCDM.
- f. On Civil Defense Day, AMVETS distributed, to television stations nationwide, 500 slides promoting shelter construction.

Forty national organizations continued their support of the Continuity of Government Program; e.g., active support of labor organizations in 32 States and information campaigns by organizations in 21 States having pending legislation for the program. Local civil, fraternal, and veterans' organizations averaged 5 program presentations weekly throughout the Nation, and 22 national and State conventions of these organizations used OCDM exhibits.

National youth organizations showed increased interest in civil defense. The Boy Scouts of America supported activities promoting fallout shelter construction, radiological defense, rescue, and Radio Amateur Civil Emergency Services (RACES). The Future Farmers of America sponsored most of the rural civil defense youth meetings

held in 23 States and attended by 25,800 persons. Boys' Clubs of America and youth organizations of the Order of DeMolay and of Optimist International also supported civil defense activities.

Through its Division of Community Services Activities, AFL-CIO reached a formal agreement with DHEW. The agreement defines the responsibility of organized labor in carrying out Federal disaster functions delegated to DHEW by OCDM. Use of organized work teams of skilled trade-union members for disaster operations was discussed with the U.S. Department of Labor. This possibility will be considered further in FY 1962.

OCDM continued to work with national women's organizations representing a collective membership numbering in the millions. Principal activities centered on motivating homemakers for family preparedness and on increasing the interest of women in emergency planning. During FY 1961, emergency planning was emphasized at 19 national conventions of women's groups, and civil defense subjects were discussed at numerous regional, State, and local meetings for women in which OCDM representatives participated. Women's participation in home preparedness workshops increased nearly 100 percent over that of FY 1960, and participation in a program to give awards for accomplished home preparedness increased 65 percent.

Beginning in FY 1959, OCDM established a rural civil defense information program. During FY 1961, this program was assigned to the U.S. Department of Agriculture under section 6 of Emergency Preparedness Order No. 1, *Assigning Certain Civil Defense and Defense Mobilization Functions to the Secretary of Agriculture*. However, OCDM retained policy direction of the program. Results of this program included the planned construction of 6,570 fallout shelters in rural areas and a special test exercise in Larimer County, Colorado, as part of Operation Alert 1961. More than 26 percent (2,820) of the families in this county returned questionnaires on the exercise. The following data were found applicable to families reporting: (1) Almost 88 percent received the warning in 10 minutes, but 12 percent did not receive it; (2) ninety percent had read OCDM's booklet *Individual and Family Preparedness*; (3) for protection, 5 percent used special shelters, 42 percent remained on the first floor of their home and 53 percent used basements; and (4) 11 percent had sufficient food for 2 or more weeks.

FEDERAL ASSISTANCE

Matching funds.—OCDM continued to provide Federal matching funds to States, Territories, and Possessions by authority of Public Law 920, 81st Congress, as amended by Public Law 85-606.

Funds obligated for supplies, equipment, and facilities exceeded \$10 million for FY 1961. Cumulative net obligations since the beginning of this program in 1952 totaled almost \$105 million or approximately 57.5 cents per capita. (See table 4.) Approximately \$80 million of this amount has actually been expended. During FY 1961, major contributions were for communications, warning, engineering, and emergency operating centers. Other civil defense activities were also assisted; e.g., community welfare services, public information, training and education, and chemical, biological, and radiological defense.

Funds to help pay essential civil defense personnel and administrative costs of State and local governments first became available on January 1, 1961, in the amount of \$6 million. At the end of June 1961, 47 States, the District of Columbia, Guam, the Virgin Islands, and 703 of their political subdivisions had participated in this program. (See table 5.) All State and local employment supported by these funds must be under a merit system satisfying Federal standards. In addition to improving stability and professional quality of civil defense personnel, this program is believed responsible for a marked increase in the number of full-time employees specifically performing civil defense functions; i.e., an increase of approximately 1,366 or 60 percent since January 1, 1961, according to staffing plans available at the end of FY 1961.

A program for partial reimbursement of travel and per diem expenses of students attending OCDM schools was started during FY 1960 to encourage training of State and local civil defense leaders. Course completion certificates issued to students training under this program during FY 1961 totaled 2,038, and the amount spent was \$125,408. Cumulative expenditures since the beginning of the program amounted to \$155,496, and completion certificates issued totaled 2,461. Average expenditure per course completed by a student was \$63.18.

Surplus property.—Under Public Law 655, 84th Congress, OCDM continued to administer the donation of Federal surplus property to the States for civil defense purposes. Since 1957, when Congress authorized such action, property having an acquisition cost of more than \$182 million has been transferred to the States. Federal surplus property donations valued at almost \$50 million were donated to the States during FY 1961. (See table 6.) Electric generators and equipment for construction and firefighting ranked high on the list of FY 1961 property donations. (See also *Machine tools and production equipment* under *Federal Stockpiles.*)

TABLE 4.—Federal contributions for supplies, equipment, and facilities

Area	FY, 1952-61		Total obligations FY 1961
	Total expenditures	Total obligations	
TOTAL.....	\$79, 823, 236	\$104, 608, 248	\$10, 468, 294
REGION 1.....	24, 220, 546	33, 084, 011	3, 151, 501
Connecticut.....	2, 077, 540	2, 364, 483	124, 487
Maine.....	866, 735	1, 118, 267	103, 473
Massachusetts.....	2, 983, 845	4, 714, 766	151, 762
New Hampshire.....	316, 405	391, 874	35, 938
New Jersey.....	2, 088, 068	2, 700, 026	186, 226
New York.....	14, 619, 453	20, 211, 910	2, 413, 361
Rhode Island.....	362, 032	571, 194	112, 954
Vermont.....	259, 271	298, 288	15, 393
Puerto Rico.....	634, 826	700, 832	7, 907
Virgin Islands.....	12, 371	12, 371	-----
REGION 2.....	16, 952, 431	20, 403, 467	1, 650, 942
Delaware.....	812, 813	870, 837	34, 935
District of Columbia.....	213, 591	229, 723	-----
Kentucky.....	563, 940	617, 765	40, 582
Maryland.....	1, 950, 262	2, 346, 530	314, 864
Ohio.....	4, 795, 357	5, 372, 535	384, 571
Pennsylvania.....	7, 557, 811	9, 518, 813	672, 787
Virginia.....	868, 203	1, 133, 385	191, 795
West Virginia.....	190, 454	313, 879	11, 408
REGION 3.....	6, 416, 389	8, 125, 021	614, 683
Alabama.....	713, 563	1, 063, 232	65, 594
Florida.....	1, 333, 739	1, 788, 321	191, 934
Georgia.....	1, 588, 101	1, 786, 014	160, 344
Mississippi.....	200, 847	402, 854	34, 891
North Carolina.....	1, 071, 708	1, 425, 848	83, 588
South Carolina.....	239, 677	283, 515	44, 529
Tennessee.....	1, 202, 496	1, 308, 979	33, 803
Canal Zone.....	66, 258	66, 258	-----
REGION 4.....	8, 805, 499	11, 851, 410	1, 187, 206
Illinois.....	2, 589, 057	3, 029, 717	226, 158
Indiana.....	989, 717	1, 581, 570	106, 360
Michigan.....	2, 719, 620	3, 694, 345	354, 826
Minnesota.....	1, 174, 645	1, 766, 796	230, 538
Wisconsin.....	1, 332, 460	1, 778, 982	269, 324

TABLE 4.—Federal contributions for supplies, equipment, and facilities—Con.

Area	FY 1952-61		Total obligations FY 1961
	Total expenditures	Total obligations	
REGION 5.....	\$5, 369, 846	\$8, 177, 134	\$1, 356, 973
Arkansas.....	581, 449	1, 097, 002	227, 978
Louisiana.....	1, 102, 086	1, 718, 673	406, 258
New Mexico.....	163, 637	233, 112	18, 423
Oklahoma.....	1, 031, 738	1, 552, 228	284, 336
Texas.....	2, 490, 936	3, 576, 119	419, 978
REGION 6.....	3, 739, 428	5, 186, 497	1, 001, 922
Colorado.....	750, 547	941, 790	184, 052
Iowa.....	235, 173	334, 385	69, 805
Kansas.....	633, 075	806, 452	156, 453
Missouri.....	1, 322, 268	1, 422, 974	89, 305
Nebraska.....	399, 684	658, 825	239, 858
North Dakota.....	201, 299	768, 567	206, 539
South Dakota.....	119, 691	143, 650	21, 609
Wyoming.....	77, 691	109, 854	34, 301
REGION 7.....	10, 640, 696	13, 377, 471	1, 233, 655
Arizona.....	299, 056	315, 810	12, 016
California.....	9, 518, 307	11, 919, 599	1, 015, 032
Hawaii.....	566, 800	798, 739	162, 540
Nevada.....	61, 573	89, 426	12, 707
Utah.....	180, 727	239, 664	31, 360
American Samoa.....			
Guam.....	14, 233	14, 233	
REGION 8.....	3, 678, 401	4, 403, 237	271, 412
Alaska.....	358, 112	374, 297	16, 185
Idaho.....	157, 715	289, 202	25, 452
Montana.....	159, 539	199, 206	23, 174
Oregon.....	1, 157, 371	1, 248, 438	70, 452
Washington.....	1, 845, 664	2, 292, 094	136, 149

TABLE 5.—Federal contributions for civil defense personnel and administrative expenses, Jan. 1 through June 30, 1961

Area	Political subdivisions			Federal contributions	
	Number participating	Staff ¹		Total ² expenditures	Total obligations
		Before participation	After participation		
TOTAL.....	703	2, 228	3, 638	\$879, 185	\$3, 482, 757
REGION 1.....	73	766	975	423, 362	1, 034, 293
Connecticut.....	8	14	36	13, 778	43, 537
Maine.....	3	26	37	14, 096	42, 038
Massachusetts.....	9	98	124	25, 995	82, 003
New Jersey.....	25	110	157		107, 650
New York.....	28	517	617	369, 493	756, 590
Virgin Islands.....		1	4		2, 565
REGION 2.....	60	270	483		368, 228
Delaware.....	3	14	22		15, 975
District of Columbia.....		6	22		22, 042
Kentucky.....	2	6	34		28, 199
Maryland.....	14	56	77		85, 589
Ohio.....	7	86	144		39, 039
Pennsylvania.....	12	68	101		113, 795
Virginia.....	8	19	44		34, 738
West Virginia.....	14	15	39		28, 851
REGION 3.....	149	207	526	193, 784	548, 536
Alabama.....	25	15	74	35, 569	76, 319
Florida.....	15	43	92	37, 341	99, 782
Georgia.....	41	70	119	39, 378	103, 526
Mississippi.....	10	7	47	18, 826	43, 877
North Carolina.....	18	37	82	37, 198	88, 018
South Carolina.....	27	15	56	25, 472	65, 670
Tennessee.....	13	20	56		71, 344
REGION 4.....	170	334	536	96, 342	544, 750
Illinois.....	19	54	87	20, 502	99, 769
Indiana.....	17	35	65		37, 095
Michigan.....	33	81	123	17, 072	157, 720
Minnesota.....	66	68	140	14, 722	125, 744
Wisconsin.....	35	96	121	44, 046	124, 422
REGION 5.....	48	131	258	64, 888	243, 761
Arkansas.....	2	15	29	19, 502	49, 159
Louisiana.....	7	60	97	19, 190	69, 867
New Mexico.....	2	6	20	4, 710	15, 577
Oklahoma.....	11	22	52	21, 486	50, 207
Texas.....	26	28	60		58, 951

See footnotes at end of table.

TABLE 5.—Federal contributions for civil defense personnel and administrative expenses, Jan. 1 through June 30, 1961—Continued

Area	Political subdivisions			Federal contributions	
	Number participating	Staff ¹		Total ² expenditures	Total obligations
		Before participation	After participation		
REGION 6.....	108	130	282	\$9, 580	\$201, 798
Colorado.....	16	22	46		34, 867
Iowa.....	7	11	27		18, 202
Kansas.....	24	20	45		42, 866
Missouri.....	20	40	68		27, 340
Nebraska.....	7	13	39		26, 254
North Dakota.....	4	9	15	3, 614	19, 620
South Dakota.....	12	11	27	5, 966	15, 146
Wyoming.....	18	4	15		17, 503
REGION 7.....	55	301	429	32, 842	358, 949
Arizona.....	3	19	33		11, 878
California.....	45	254	338		261, 059
Hawaii.....	4	15	29	17, 293	45, 000
Nevada.....	1	3	9	8, 011	19, 086
Utah.....	2	10	17	7, 538	20, 689
Guam.....			3		1, 237
REGION 8.....	40	89	149	58, 387	182, 442
Alaska.....		5	8	7, 818	12, 746
Idaho.....	15	4	26	9, 250	21, 906
Montana.....	5	2	10	4, 369	10, 215
Oregon.....	9	36	41		54, 150
Washington.....	11	42	64	36, 950	83, 425

¹ As indicated by plans submitted to OCDM by State and local governments.² Expenditures reported by States as of June 30, 1961.

TABLE 6.—Federal surplus property transferred to State and local governments for civil defense purposes

[In thousands of dollars]

Area	Acquisition cost of transferred property ¹		Area	Acquisition cost of transferred property ¹	
	Fiscal years 1957-61	Fiscal year 1961		Fiscal years 1957-61	Fiscal year 1961
TOTAL.....	\$182,045	\$49,939	REGION 5.....	\$22,375	\$7,840
REGION 1.....	29,510	7,234	Arkansas.....	4,417	802
Connecticut.....	4,062	742	Louisiana.....	6,214	3,262
Maine.....	3,908	987	New Mexico.....	948	383
Massachusetts.....	6,228	1,433	Oklahoma.....	2,641	938
New Hampshire.....	1,189	298	Texas.....	8,154	2,455
New Jersey.....	4,231	1,585	REGION 6.....	12,681	3,116
New York.....	7,108	1,432	Colorado.....	2,885	604
Rhode Island.....	902	352	Iowa.....	799	166
Vermont.....	516	123	Kansas.....	1,012	163
Puerto Rico.....	1,366	282	Missouri.....	3,083	440
REGION 2.....	19,300	5,524	Nebraska.....	1,269	716
Delaware.....	171	35	North Dakota.....	941	530
Kentucky.....	2,079	526	South Dakota.....	1,531	232
Maryland.....	3,647	901	Wyoming.....	1,161	265
Ohio.....	3,162	833	REGION 7.....	31,678	7,690
Pennsylvania.....	6,554	1,902	Arizona.....	964	215
Virginia.....	3,089	1,127	California.....	26,909	6,285
West Virginia.....	689	201	Hawaii.....	182	37
REGION 3.....	33,357	10,584	Nevada.....	514	316
Alabama.....	5,461	1,254	Utah.....	3,108	837
Florida.....	10,348	3,584	REGION 8.....	8,557	2,843
Georgia.....	7,629	2,154	Alaska.....	1,002	932
Mississippi.....	1,398	1,318	Idaho.....	1,562	287
North Carolina.....	5,372	1,089	Montana.....	424	161
South Carolina.....	1,770	910	Oregon.....	1,669	518
Tennessee.....	1,378	275	Washington.....	3,900	944
REGION 4.....	24,497	5,108			
Illinois.....	6,309	825			
Indiana.....	3,866	1,265			
Michigan.....	9,515	2,056			
Minnesota.....	2,999	585			
Wisconsin.....	1,808	377			

¹ Figures may not add to exact totals due to rounding.

Assistance in major disasters.—OCDM coordinated Federal assistance in major disasters as authorized by Executive Order 10427 and in accordance with the Federal Disaster Act (Public Law 875, 81st Congress). Under this law, the Federal Government assists State and local governments in carrying out their responsibilities to alleviate suffering and damage resulting from major disasters and to foster the development of State and local plans as necessary to cope with these catastrophes. In FY 1961, 14 disasters were declared "major." Funds allocated under the Act during this period for reimbursement to the States totaled \$11,965,000. Other Federal agencies also expended funds for disaster services under other statutes.

TESTS AND EXERCISES

OCDM's major test and exercise during the year was Operation Alert 1961, held nationwide over a 5-day period from April 26 through April 30 in two parts: (1) Increased readiness phase, April 26-28; and (2) attack phase, April 28-30.

The increased readiness phase simulated a period of rapidly increasing international tension and was designed to test and exercise the responses to increasing degrees of readiness required. Governments at all levels and selected private organizations participated in this phase. Emphasis was on (1) notifying key personnel and manning relocation sites, (2) preparing normal offices for emergency operations, (3) using operational communications systems, and (4) proposing decisions and actions for rapid increase in public, private, and governmental capabilities to deal with the approaching simulated attack.

The attack phase simulated a nuclear attack to test the actions required by emergency plans. All levels of government, private organizations, and the public participated in this phase. Emphasis was on (1) warning, (2) collection, evaluation, analysis, and use of postattack data reports of damage, (3) control and use of communications, (4) immediate postattack survival actions, and (5) decisions and actions for dealing with postattack problems. The National Warning System (NAWAS), subordinate warning systems, and CONELRAD (Control of Electromagnetic Radiations) were tested. During the 30-minute CONELRAD test, the President and the OCDM Director addressed the Nation, and State and local governments exercised their emergency broadcasting plans. The public had an opportunity to become familiar with attack warning signals, CONELRAD broadcast of emergency survival instructions, and practice of shelter and evacuation procedures.

Evaluation of both phases of the exercise provided valuable data on the status of plans, procedures, and needed improvements. The initial phase was the first nationwide testing of new plans and procedures for degrees of readiness. The experience was invaluable for future guidance in developing techniques for this purpose. Participants gained most training benefits from the second phase which was similar to Operation Alert 1960 in procedures already familiar to many persons.

The monitor system, introduced in FY 1960 to assure correct play of the exercise and to evaluate procedure, was improved during FY 1961 and used more fully in Operation Alert 1961. State and local governments have helped develop the system and most of them consider it essential to the design and conduct of the exercise. Governments at all levels have applied the system to other exercises and have plans for its permanent use.

During the last half of FY 1961, OCDM began a series of quarterly operational exercises (OPEX-Series) principally to check emergency operational procedures and facilities more frequently and to test and exercise key emergency personnel in government more frequently and intensively. OPEX 1961-I, held on January 16, briefly covered the readiness preattack phase and the early stages of a nuclear attack phase. Only selected OCDM staff participated. OPEX 1961-II, held on April 6 and 7, was similar but included Federal agency headquarters and field staffs whose emergency plans require their presence at OCDM facilities.

One OCDM Regional Office used information from OPEX 1961-II to conduct a similar exercise with State governments in its region. The experience will be helpful in extending future exercises in the OPEX series to State and local governments. In June 1961, OCDM began to plan a series of limited governmental staff exercises to test plans and procedures adapted to prolonged readiness periods and later postattack periods. This exercise series will be complementary to the OPEX series.

In addition to Operation Alert 1961 and the OPEX series, individual OCDM facilities conducted periodic tests and exercises, and OCDM frequently tested its nationwide warning and communications systems. Other agencies at all levels of government conducted many types of tests and exercises involving emergency responsibilities. OCDM continued to encourage these activities and provided technical assistance upon request. Most tests and exercises conducted by individual Federal agencies were similar to those conducted by OCDM. State and local governments held exercises covering procedure activities for emergency control centers.

State and local governments held exercises covering: (1) Emergency control center procedures; (2) fire, police, rescue, and shelter-evacuation activities; (3) occupancy tests of individual and mass shelters; (4) operation of Radio Amateur Civil Emergency Services (RACES) and Military Affiliate Radio System (MARS); and (5) command post operational plans.

OFFICIAL ORGANIZATIONS AND ADVISORY GROUPS

Civil defense and defense mobilization responsibilities present many common objectives for action by governments, nongovernment organizations, and friendly foreign countries. Examples cited in various sections of this report illustrate how OCDM worked with governments at all levels and the leaders of national organizations to strengthen the Nation's capabilities for survival and recovery. Another important aspect of OCDM's activities was its work with official organizations and advisory groups, including those of friendly foreign countries.

INTERNATIONAL ACTIVITIES ¹

In cooperation with the Department of State, OCDM helped strengthen civil emergency planning programs of many friendly countries, especially those belonging to the North Atlantic Treaty Organization (NATO) and the Central Treaty Organization (CENTO).

OCDM representatives attended 14 conferences of the NATO Senior Civil Emergency Planning Committee and its several committees and technical work groups. Subjects under consideration for study and action were civil communications, warning, civil defense, medical problems, shelters, industrial planning, scientific problems, and industry defense. OCDM representatives participating in these conferences also observed civil defense offices and installations in the United Kingdom, Belgium, Denmark, France, Norway, Sweden, and the Netherlands.

An OCDM representative conferred with officials in Pakistan, Iran, and Turkey to help them evaluate their civil defense organization, training programs, and techniques. Arrangements for the month-long conference, requested by each of these CENTO member countries, were made by the Department of State. The representative also participated in an annual CENTO meeting of civil defense experts held at Tehran. In addition, an OCDM staff member, at request of the West German Government, addressed a shelter symposium in Freiburg.

Briefings and conferences were held in Washington, D.C., and Battle Creek, Mich., for emergency planning officials from Australia, Burma, England, Guatemala, Indonesia, Japan, the Netherlands, Norway, Pakistan, the Republic of the Philippines, Spain, Sweden, Turkey, and West Germany. National police officers, two from Colombia and one from Iraq, attended OCDM Staff College courses and con-

¹ See also *Telecommunications*.

ferred with civil defense staffs at all levels in addition to participating in the International Cooperation Administration training program.

Included in exchange of information with other countries were scientific reports and general information on civil defense budgets and programs. The National Plan has been distributed to national and local authorities in 29 countries. Nine countries regularly send OCDM periodicals issued by civil defense organizations.

Mutual close liaison with OCDM and both the Canadian Emergency Measures Organization and the Canadian Army Survival Staff prevailed in coordinating joint efforts for civil emergency planning. An exchange of personnel rosters identifying persons available for liaison in various program areas, except on policy matters, was used to promote more effective daily operations between staffs of both Governments. Further exchange of information was accomplished through reports, technical publications, test exercises, and personal visits. Subjects covered in a Canadian publication series *Blue Print for Survival* included basement fallout shelters, fallout on the farm, and steps to survival. Forewords by Prime Minister John G. Diefenbaker were used in some of these publications.

THE AMERICAN NATIONAL RED CROSS

As a result of the continuing and expanding training program of the American National Red Cross, more than 9 million persons have completed first aid courses since 1950, and more than 1.5 million have trained in home nursing during the same period. In addition, many persons have trained in emergency mass feeding. Self-help training of this type remains available nationwide through the cooperative efforts of the ANRC and its widely dispersed field chapters. Survival in manmade and natural disasters either in time of peace or war would, in a large measure, depend upon the extent and application of this training.

The ANRC's extensive and intensive experience in dealing with large-scale disasters has proved invaluable in helping develop plans and implementing emergency welfare programs. OCDM continued to capitalize on this experience at each of its 8 regional offices through the ANRC full-time liaison representative on loan there for this purpose. In addition, a full-time ANRC liaison representative was on duty at OCDM National Headquarters.

In FY 1960, ANRC began to extend similar liaison services to other Federal agencies having civil defense and defense mobilization responsibilities or delegated duties. This action was continued during FY 1961. As experienced at OCDM offices, this service has also proved invaluable to the Government staffs in providing information and advice needed in discharging daily natural disaster relief responsibilities equitably and wisely

CIVIL DEFENSE ADVISORY COUNCIL

The Civil Defense Advisory Council, established by section 102 of the Federal Civil Defense Act of 1950 (64 Stat. 1247; 50 U.S.C. App. 2272), advises and consults with the OCDM Director concerning general or basic civil defense policies. The Director is the chairman, and of the 12 additional members appointed by the President, 3 represent State governments, 3 represent the State political subdivisions, and 6 the citizenry of the United States.

The Council met two times in FY 1961 for deliberation on policy matters relating to such subjects as FY 1962 appropriation requirements, further development of the National Shelter Policy, and a review of regional operations.

The President appointed three new members during 1961. One vacancy remained to be filled at the end of FY 1961. Council members at the close of the year were:

Hon. Frank B. Ellis, Chairman.

Hon. Edmund G. Brown, Governor of California (new member).

Mrs. Hiram Cole Houghton, Red Oak, Iowa.

Mrs. Charles P. Howard, Boston, Mass.

Hon. Stephen L. R. McNichols, Governor of Colorado (new member).

Maj. Gen. Otto L. Nelson, Jr., Vice President, New York Life Insurance Co.

Hon. Okey L. Patteson, Former Governor of West Virginia.

Hon. P. Kenneth Peterson, Mayor of Minneapolis, Minn.

Mr. George J. Richardson, Special Assistant to the President, AFL-CIO.

Hon. Clifford E. Rishell, Mayor of Oakland, Calif.

Mr. Robert E. Smith, Houston, Tex.

Hon. S. Ernest Vandiver, Governor of Georgia (new member).

CIVIL AND DEFENSE MOBILIZATION BOARD

At his request, the Civil and Defense Mobilization Board advises the OCDM Director concerning his responsibilities. Executive Order 10773 of July 1, 1958, as amended by Executive Order 10782 of September 6, 1958, established this Board.

The Board's chairman is the OCDM Director. Its members are the heads of Federal executive departments and agencies designated by him with their consent. In FY 1961, 23 members served on the Board. Among the Board's numerous advisory considerations were plans for Operation Alert 1961, OCDM's research program, and continued emphasis on emergency planning.

ADVISORY COMMITTEES

Established advisory committees to OCDM continued to function in several major nonmilitary defense areas. Outstanding leaders of national organizations, labor, industry, agriculture, and religious, professional, and educational groups served on these committees. Their advice and guidance in developing, planning, and carrying out OCDM programs within their areas of interest continued to strengthen non-military defense capabilities throughout the Nation. Active advisory committees in FY 1961 were:

Citizens Advisory Committee on the National Defense Executive Reserve.

Committee on Specialized Personnel.

Health Resources Advisory Committee.

Subcommittee on Blood.

Subcommittee on Hospital Services.

Labor Advisory Committee.

National Advisory Council on Rural Civil and Defense Mobilization.

National Fire Defense Advisory Committee.

National Labor-Management Manpower Policy Committee.

National Religious Advisory Committee.

National Women's Advisory Committee.

OCDM Program Advisory Committee.

OCDM Police Committee.

Training, Education, and Public Affairs Advisory Committee.

REGIONAL ADVISORY COUNCILS

A Regional Advisory Council in each of the eight OCDM regions was established during FY 1961. The Regional Advisory Councils, under the chairmanship of the Regional Director, advise and counsel the Regional Director in the preparation of plans during peacetime and in the execution of plans during an emergency.

The members of the Councils appointed by the Director, OCDM, are selected from among persons having broad governmental experience, especially in elective office, and those holding positions of leadership in industry, labor, agriculture, public affairs, education, or other professions.

EXECUTIVE ORDER 10902

PROVIDING FOR THE ISSUANCE OF EMERGENCY PREPAREDNESS ORDERS BY THE DIRECTOR OF THE OFFICE OF CIVIL AND DEFENSE MOBILIZATION

By virtue of the authority vested in me by the provisions of Reorganization Plan No. 1 of 1958 (72 Stat. 1799), the Defense Production Act of 1950, as amended (50 U.S.C. App. 2061 *et seq.*), and section 301 of title 3 of the United States Code, and as President of the United States, it is hereby ordered as follows:

SECTION 1. In connection with carrying out the functions delegated or otherwise assigned to him by the provisions of Executive Order No. 10773 of July 1, 1958, as amended by Executive Order No. 10782 of September 6, 1958, or by the provisions of other orders thereby amended, the Director of the Office of Civil and Defense Mobilization shall establish a series of civil-defense and defense-mobilization planning assignments which (1) shall be known as "Emergency Preparedness Orders," (2) shall, so far as practicable, be of uniform character, and (3) shall be designed to provide for the development of civil-defense and defense-mobilization plans and programs by the several departments and agencies of the executive branch of the Government to meet all conditions of national emergency, including attack upon the United States.

SECTION 2. The head of each department and agency assigned civil-defense and defense-mobilization functions by the Director of the Office of Civil and Defense Mobilization in consonance with the provisions of section 1 of this order shall develop the plans and programs there referred to under the policy direction and central program control of the Director of the Office of Civil and Defense Mobilization.

SECTION 3. Nothing in this order or in the National Plan for Civil Defense and Defense Mobilization shall be construed as conferring authority to put into effect any plan, procedure, policy, program, or other course of action prepared or developed pursuant to this order or the National Plan.

DWIGHT D. EISENHOWER.

THE WHITE HOUSE,
January 9, 1961.