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UNIVERSITY OF SOUTHERN CALIFORNIA
CIVIL DEFENSE TRAINING PROGRAM

office of civil defense program

summary



DEPARTMENT OF DEFENSE



OFFICE OF CIVIL DEFENSE

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FOREWORD

The material which follows constitutes a summary of the Civil Defense Program for FY 1966. The structure of the program is based upon the three major components of a comprehensive civil defense effort, viz. fallout shelter, warning and emergency operations. Within each of these major components more detailed information is provided for sub-programs and line items and in some instances projects and tasks. In addition, a fourth category of activities is included which is composed of those support activities necessary to the successful execution of the substantive program components identified above.

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THE NATIONAL CIVIL DEFENSE PROGRAM

The basic goal of civil defense is the survival of people in the event of an attack on the United States. Such an attack is construed to be one with nuclear weapons. In addition, all civil defense activity is designed to improve the circumstances and opportunities for continued life after an attack, despite physical damage and a more hostile environment. The measure of the worth of a civil defense program is its contribution to lifesaving potential.

Although it is not possible to predict with assurance either the nature of an enemy's intentions or his specific attack objectives, it is possible to make sound probability studies covering virtually the entire range of enemy capabilities. The results of these studies can be used to develop effective plans for both military and civil defense programs.

The lifesaving potential of an effective civil defense program has been amply demonstrated by the detailed studies referred to above and is supported by the judgment of senior U. S. military officers. The studies show that a fallout shelter oriented civil defense program would save tens of millions of lives in event of nuclear attack, and would also demonstrate our national will to stand fast, recover from nuclear attack, and look to the future with optimistic determination.

A number of studies also have been made of the complementary military-civil defense relationship. The damage limiting potentials of each program, by itself and in combination with other programs, were computed and cost-effectiveness data and relationships were established and compared.

From these studies it is clear that fallout shelters provide the lowest-cost opportunity for saving lives. On the basis of these studies, Defense Secretary Robert S. McNamara told both the House and Senate Armed Services Committees in 1964 that "Civil Defense is an integral and essential part of our over-all defense posture. I believe it is clear from my discussion of the Strategic Retaliatory and Continental Air and Missile Defense Forces that a well planned and executed nationwide civil defense program centered around fallout shelters would contribute much more, dollar for dollar, to the saving of lives in the event of a nuclear attack upon the United States than any further increases in either of these two programs."

The civil defense effort, designed to improve the probability of survival of all the people in the U. S. , inevitably involves Federal, State and local governmental responsibilities. The general division of responsibilities follows the precept of Federal leadership in peacetime planning, and State and local leadership in post-attack operations. The Federal Government's basic responsibility is to establish a national civil defense capability. The primary responsibility of State and local governments is to help develop that capability and to direct operations in time of emergency.

SURVEY

There are millions of shelter spaces inherent in existing construction. Since 1961 OCD has been conducting a fallout shelter survey to assess and identify the fallout shelter potential of the nation. The inventory developed by the initial survey conducted in FY 1962 and FY 1963 has been updated in 1964-65. This inventory can be drawn upon by local planners in developing the protection posture for their area of concern. In order to keep the inventory current, the survey must be continually updated to insure that necessary adjustments are made in records to reflect new construction, demolished construction and other changes which affect the fallout shelter potential of structures.

To implement the continuing survey and to identify areas of need, this program is divided into three areas of effort. They are:

1. The National Fallout Shelter Survey which involves surveying of all facilities which are estimated to meet OCD criteria for marking and stocking as a fallout shelter facility. The current goal of this program is to identify approximately 6,000,000 additional spaces each year to add to the more than 137 million spaces which have been located.
2. The Small Structures Survey is the survey of those structures which afford the necessary protection but because of size limitations have not been included in the NFSS. The initial Small Structure Survey effort in 1965 was confined to the Community Shelter Planning areas. This restriction will continue in the 1966 program until sufficient results have been received to permit a comprehensive analysis of the survey results. It is estimated that 2,330,000 shelter spaces can be added to the inventory from this effort.
3. The Evaluation of Fallout Protection in Homes, which is now in the "sample survey" stage is designed to evaluate the protection capability of the approximately 25 million homes that have basements. Projections give reason to believe that in these homes there now exist over 11 million spaces with a protection factor of 40 or better that can be identified. These shelter spaces are located in residential areas, where most of the shelter deficiency exists and will constitute a valuable and relatively inexpensive addition to the national shelter inventory.

Area surveys in FY '66 will cover approximately 7% of the nation's single and duplex family homes.

IMPROVEMENT

In order to increase the useability of shelter space, and therefore add to the total shelter inventory it has been indicated that certain improvements, particularly with regard to ventilation and the availability of water are necessary.

When portable ventilation kits are stored in shelter areas many millions of additional shelter spaces can be made available for the protection of the nation. These are spaces which are presently identified and are located in shelter areas which lack sufficient ventilation to enable full use of the floor area.

One of the obstacles of the provisioning of located shelter spaces is the volume and weight of water drums. Trapped water in facilities therefore should be utilized to the maximum for use of potential shelter occupants.

The improvements discussed above are to be implemented as follows:

1. A pilot procurement and placement of Portable Ventilation Kits will be carried out during FY 1966 concurrently with further testing and developmental work which is being carried on. After successful completion of the pilot program, the program will be expanded for full scale. The pilot effort will be conducted in the 57 cities which are involved in the Community Shelter Planning project.

Analysis of the current inventory of shelter spaces and the shelter spaces to be added to the inventory indicates that 28.8 million spaces could be added to the inventory

2. During FY '66 a program of trapped water improvement will be carried out in selected Federal buildings under the current 57 CSP areas. If the results of this program are favorable, trapped water improvements will be accomplished in Federal buildings located in the new CSP areas during FY '67. The results from these programs will be analyzed to evaluate whether the program should be extended to all shelter facilities.

DEVELOPMENT

The ultimate goal of the National Civil Defense program is to locate or obtain enough shelter spaces so that all the Nation's population could be sheltered from fallout during a nuclear emergency. The purpose of the Development Sub-Element is to create, or develop, shelters in adequate quantities to eliminate what otherwise would be a substantial deficit.

Development includes provisions for training architects and engineers and maintaining their proficiency in fallout shelter design, continued utilization of "no cost" slanting of building designs, the furnishing of Federal funds for the construction of additional shelter through "low cost" and "high intensity" slanting of designs; Federal construction of "phased" community shelters, and the planning necessary for expedient shelters which could be constructed rapidly in periods of increased tension.

Four programs are in operation as means of obtaining additional shelter. They are:

1. A&E Professional Development which is the training of architects and engineers in the methods and techniques of fallout shelter design and analysis.
2. A&E Technical Information to provide a continuous supply of new technical information in fallout shelter design and analysis to architects and engineers.
3. Services to A&E through the furnishing of technical advice to practicing architects and engineers.
4. Expedient Shelter plans as a "stop gap" measure to alleviate the deficit which will exist until construction is completed.

MARKING AND STOCKING

The Marking and Stocking Sub-Element encompasses those activities designed to identify public fallout shelters and to provision them for survival of the occupants. These facilities must meet Federal criteria for fallout shelters and be available for use by the public in a civil defense emergency.

The marking of facilities which provide a protection factor of 40 or better permits the public to recognize those facilities which will afford protection when they are seeking fallout shelter in a civil defense emergency. To ensure the survival of the occupants of public fallout shelters for an extended period, austere general shelter supplies are provided to the local governments for stocking the shelters for occupancy for two weeks. Shelter monitoring kits are provided to enable the occupants to avoid unnecessary radiation exposure.

In order to execute the Marking and Stocking Sub-Element, the task has been divided into five areas of activity. They are:

1. Marking - The public identification of facilities meeting OCD criteria involving the placement of fallout shelter signs at or near exterior entrances and on wall surfaces to guide persons to the shelter area. The FY '66 activities will include the procurement and distribution of 700,000 paper decal signs for emergency marking and normal interior marking of facilities, the marking of 25,300 facilities.
2. Procurement of Shelter Stocks by components of the Defense Supply Agency with OCD providing the criteria for the items procured and designating procurement quantities and delivery points and schedules. The stocking of fallout shelters during FY 1966 will continue at the same rate as experienced during the previous 18 months, i. e., .094 million spaces per month or 11.30 million spaces to be issued during the year. In addition, in order that supplies can be issued on a "crash basis" during a 2-week emergency or an impending emergency period, 6.0 million spaces of supplies must be held in readiness in warehouses at all times. No procurement is planned for FY '66.
3. Warehousing and Transporting of the Shelter Stocks, which include food, medical and sanitation supplies to local political jurisdictions. This is operated by the Defense General Supply Center, Richmond, Va., using the warehouse resources of the Department of Defense and General Services

Administration. During FY '66 issues will be made of shelter supplies which are already in the logistics supply line.

4. Procurement by OCD of Shelter Radef Equipment to measure the intensity of radiation in or near each shelter. Distribution is conducted by DGSC through GSA warehouses.

5. Stocking Shelters by local governments, including local movement and interim storage of supplies, placement of supplies in shelter, identification of equivalent items, including use of trapped water and gravity flow community water systems, as well as existing food, distribution of supplies and implementation of an inspection and maintenance program. The FY 1966 objective is to stock 13,500,000 shelter spaces. This is based on the projected stocking indicated in FY 1966 State program papers.

SHELTER USE

This sub-element when completed is the major component in developing a workable fallout shelter system which will provide protection to individuals from fallout. Although we have located more than 137 million shelter spaces in the United States, the matching of these spaces to the people, within the established time distance factors is necessary for the identification of shelter deficit areas.

This activity will cover all aspects of Community Shelter Planning which in effect will provide local governments with the tools to assure effective utilization of all shelter by the people in the community.

Three component programs have been developed to facilitate the execution of this sub-element. They are:

1. Community Shelter Planning which will produce information concerning shelter locations related to people to be sheltered; procedures for disseminating emergency action information to the public; precise identification of shelter deficits; and a basis for the preparation of a directive for developing or updating local Civil Defense plans. We have scheduled the completion of the CSP work in approximately 200 community areas in FY '66. The objective for FY '67 is to complete CSP on work in 250 additional community areas and to contract the final 250 so as to have them in process during FY '67 and completed in FY '68. Other cities and counties will be assisted through CSP planning to be provided through the State Community Shelter Planning Officers.
2. CSP Training which provides necessary support to the OCD Community Shelter Planning program which will include training of urban planners, civil defense personnel and the incorporation of CSP techniques in existing curricula of university planning departments.

An estimated 1100 local planners, 80 state planners and 2700 civil defense personnel will be trained by the end of the initial phase of the program.

3. A Community Shelter Planning Information System which will collect the data on which to justify other program development related to the creation of shelter through Portable Ventilation Kits, Smaller Structures Survey, Evaluation of Fallout Protection in Homes and other shelter development activities.

FEDERAL WARNING SYSTEMS

The Federal Warning Systems encompass those activities designed to transmit warning of enemy attack to State and local governments for their dissemination to the public and a special system for the Washington, D. C. metropolitan area. In addition to providing attack warning which is necessary for Federal, State and local governmental authorities to take effective action in emergencies, the system also influences State and local warning systems which condition Community Shelter Planning.

The Federal Warning Systems program is subdivided into four component programs. They are:

1. The National Warning System (NAWAS) which disseminates attack warnings directly to State governments and to selected political subdivisions and certain Federal installations. The system receives attack warning from its source, the North American Air Defense Command (NORAD) and disseminates the warning simultaneously to all Warning Points, alternates and extensions. This function is performed by the OCD National Warning Center over full period land line circuits.
2. The Washington Area Warning System (WAWAS) which entails the receipt of attack warning from the National Warning Center by National THREE Warning Center for dissemination throughout the area through the air raid siren system, the Bell and Lights System, the area warning circuits and the established radio broadcast system. The System is operated by OCD personnel.
3. The National Emergency Alarm Repeater System (NEAR), which is a method of transmitting an impulse over selected power lines by use of special generating equipment at power stations. OCD does not plan to deploy this system.
4. Radio Warning, which entails the engineering, testing, and evaluation of low frequency radio transmitters and receivers which would be suitable for dissemination of warning to back up NAWAS. This will be accomplished through contracts with qualified consultants and equipment firms, based on technical guidance and supervision provided by OCD Technical Services.

STATE AND LOCAL WARNING SYSTEMS

State Warning Systems are comprised of those communications facilities designated or established by the respective States to relay warning and other emergency information received over NAWAS to all political subdivisions not served directly by NAWAS. Systems used for warning differ from State to State and include Public Service Radio Systems, telephone, teletype, Bell and Lights and County Sheriff Radio nets.

Local Warning Systems consist of those facilities used to alert local governments, institutions, industry, schools, etc.; and devices such as sirens, horns, and voice-sound to warn the public. The presence or absence of local warning systems directly affects the implementation of community shelter plans as the local system is the prime device to activate the CSPs. Through these same systems it is possible to provide emergency information concerning attack and post-attack conditions to civil defense authorities for dissemination to shelterees via radio, telephone, public address systems and the like.

Two component programs have been developed to implement State and Local Warning Systems. They are:

1. A continuing review of State warning plans and communications systems to discover inadequacies for which corrective action can be recommended. This will include a satisfactory method of evaluating these plans and systems. Warning points will be moved or added in locations that will materially improve State warning plans provided such locations meet established criteria.

Federal funds will be provided on a matching funds basis for communications to establish State Warning Systems.

2. Guidance and assistance will be provided to local authorities to plan and implement effective Local Warning Systems. Federal funds will be provided on a matching basis for warning equipment and recurring costs for maintenance and control.

COMMAND, CONTROL, AND COMMUNICATIONS

The command, control, and communications program encompasses those activities designed to assure a means of emergency communication with Federal, State and local government authorities; to assure emergency communications with the general public; to obtain protected facilities from which State and local governmental authorities can exercise direction and control; and to obtain a damage assessment system which will provide the essential information required by State and local authorities to make sound decisions in an emergency.

In the execution of the command, control, and communications activity ten component programs have been developed:

1. NACOM I (The Civil Defense Telephone and Teletype System), which consists of leased telephone and teletypewriter services connecting OCD National Headquarters, Regional Offices, a relocation point and State civil defense offices. The system can be interconnected with other government, military, and commercial systems, and serves as a basic means of transmitting OCD operational communications. During FY '66, the following actions will be taken to improve NACOM I;
 - a. Implement the telephone conference arrangement between OCD Headquarters and the regions by adding 4-wire equipment and connecting stations.
 - b. Extend voice conference capabilities to give OCD one way conferences with all States.
 - c. Install three additional AUTOVON circuits for Region FIVE.
 - d. Continue analysis of impact of facsimile and its application in OCD communications.
 - e. Determine through testing the capability of Regions to alert other Federal agencies.
 - f. Review and update NCS requirements.

g. Assign USASCC personnel to each OCD Region to operate communications facilities on a day-to-day basis. Two individuals will be assigned to each Region except three at Region TWO and two at USASCC Headquarters.

h. Maintenance of data transmission and associated equipment at the National Civil Defense Computer Facility.

i. Coordinate and summarize requirements of all Regions by OCD National Headquarters and prepare plans for total emergency communications support.

j. Develop a training program to be conducted by USASCC at Regions to prepare for full operation of Regional Communications Center in an emergency.

2. NACOM 2 (the Civil Defense Radio System) is the emergency backup to NACOM 1 and serves the same locations except that it has been installed in only 24 States and Puerto Rico. It is a high frequency system capable of voice, manual code, and teletypewriter transmissions. Contracts are to be let early in FY 1966 for installation of NACOM 2 in 14 additional States. Other activities in FY 1966 will include:

a. Install equipment in 16 additional states and the District of Columbia under contracts let in FY 1965.

b. Continue contract negotiations with the eight States not contracted for installations this fiscal year.

c. Complete the installation of prototype blast-proof, retractile, transmitting receiving antennas at Region Five EOC; Austin, Texas EOC, and Oklahoma City, Oklahoma, EOC.

d. Obtain permanent frequency assignments from the Interagency Radio Advisory Committee.

e. Evaluate capabilities at Regions to contact the zone of the interior Armies on NACOM 2 frequencies.

f. Refine capabilities of Regions ONE, FOUR, SIX, and EIGHT to make radio contact with Canadian counterparts.

g. Each OCD Region to prepare Standing Operating Procedures covering radio contact with all Federal Agency Field Installations, either direct or by relay.

h. Move NACOM 2 control installations at OCD Regions ONE and EIGHT.

3. Improve Communications to Governors.

In FY 1966, OCD will:

a. Determine the specific equipment required for improved communications to 50 States, 8 Regions and 2 OCD Headquarters' locations.

b. Decide how this equipment will be interconnected for operational use.

c. Determine requirements at each location.

4. State and Local Emergency Communications systems are required to communicate between State Headquarters and local governments, and among local governmental elements for direction and control of their respective forces and resources. In FY 1966 OCD will:

a. Evaluate a proposed "Emergency Communications Assessment Method" manual for use by all States and communities.

b. Conduct test in limited cities to determine the practicability of utilization of this manual and the manner in which assistance will be provided.

c. Conduct an emergency communications assessment of four States of varying sizes and industrial capacity.

d. Following evaluations, institute nationwide implementation of "Emergency Assessment Method" manuals.

e. Review RACES activities to determine its current nationwide status and trends, to appraise the adequacy of present frequency allocations to States and areas and determine requirements for training guidance material including preparation of a RACES Operational Training Manual.

5. The Emergency Broadcast System provides an operational capability for National, State and local units of government to communicate with the public preceding, during and following an enemy attack. Its elements consist of an Emergency Action Notification System which uses AP and UPI news networks to alert the broadcast stations, and program circuits for interconnections.

In FY 1966, OCD will:

a. Provide guidance and assistance to State and local government authorities in implementation and further improvement of State EBS plans.

b. Some program circuits will be discontinued as radio links are installed under the OCD Broadcast Station Protection Program.

c. In conjunction with FCC and NIAC investigate new and improved methods of alerting the radio stations to reduce time delays.

d. Determine the readiness capability of present EBS plans through examination and testing at State levels.

e. Assure better understanding of concept of common programming within EBS Local Operational Areas.

6. The Broadcast Station Protection Program is essential to assure that selected broadcast stations will have an operational capability to broadcast civil defense information and instructions during a fallout environment. OCD supervises the program and provides funds for fallout protection, emergency power, remote pickup units, and programming equipment. The FCC provides technical support, and the Corps of Engineers administers the construction, payment, and inspection.

During FY 1966, OCD will:

a. Provide fallout protection and the required emergency power and associated programming equipment for 118 additional broadcast stations.

b. Study with FCC assistance the coverage patterns provided from the present 540 radio stations with the Broadcast Station Protection Program to determine best selection of the additional 118 stations.

c. Study with FCC assistance the State coverage patterns of the various FM/TV stations included in the State EBS Plans for operation of an air-to-air relay network for State programming. Select the minimum number of FM/TV stations needed to relay a program from the State entry point to all AM stations within the State.

d. Study and prepare a concept whereby additional radio stations not included in the OCD Broadcast Stations Protection Program may at their option and with assistance of local communities supplement the existing coverage for EBS during a fallout environment.

7. Communications Advisory Services provides assistance in the preparation of national emergency communications plans involving the use of the common carriers, broadcast facilities, the safety and special radio services, assignment of radio frequencies to FCC licensees, and the protection, reduction of vulnerability, reliability, maintenance, and restoration of essential communications facilities.

OCD activities in this area during FY 1966 will include:

a. Guidance to assist the States and the SIACs in the implementation of all State EBS Plans and determine their present status of operational readiness.

b. Guidance to assist the LIACs in developing EBS Plans within State assigned areas for maximum local programming capability.

c. Evaluate studies in conjunction with NIAC subcommittees concerning the development of national concepts and plans for the emergency communications use of selected FCC Radio Services.

d. Continue funding of required FCC liaison personnel in each OCD Regional office and the supporting FCC Headquarters personnel.

8. State and Local Emergency Operating Centers provide a centralized point for direction and control of all emergency activities during emergencies and in peacetime provide a site for day-to-day administration of the civil defense program, emergency planning, and training of State and local government staffs in emergency operations. OCD will continue to assist State and local governments in this program providing improved guidance criteria and financial assistance.

The FY 1966 objective in this program is to:

a. Provide information and assistance to the Regions for the establishment of 130 EOCs under the Federal contributions program. Using studies and research projects to give guidance as to cost, priority of Federal contributions, operating procedures, operational capability and city-county combination uses.

9. Damage Assessment entails the development of a system to process and analyze weapons effects damage upon the national population and resources. This system is required nationally, regionally and by State and local governments. OCD provides guidance and assistance in this activity and must continually update and improve its techniques for more effective analysis and evaluation of damage effects. This also involved the development of an effective reporting system at each level of government and to each higher echelon of government.

The following Damage Assessment Studies and analyses are planned for FY 1966:

- a. Cost Effectiveness of Offensive and Defense Systems.
 - b. Revision of "Nuclear Attack in Continental U.S. - 1963".
 - c. Studies to improve OCD's capability to evaluate the fire threat associated with nuclear war.
 - d. Studies to improve estimates of utility systems.
 - e. Inventory of the Epidemiological laboratories.
 - f. Updating of food stock inventories.
 - g. Updating the inventory of electric generating stations.
 - h. Updating and expanding the petroleum products inventory data.
 - i. Complete the lattices for all Standard Metropolitan Statistical areas.
 - j. Post-attack Population Survey.
 - k. Provide capability for taking necessary data from original records and placing them automatically into the computer. (Access)
 - l. Graphic Presentation of Standard Location for Large Urbanized areas.
 - m. Measurement of Standard Locations.
10. Design and Construction of Regional Operating Centers is necessary in order to provide essential emergency management and direction facilities in wartime and to house Regional Civil Defense and other Federal agency personnel in Peacetime. Eight Regional centers have been planned. These will be designed to provide adequate radiation and minimal blast protection. Structurally these are facilities which provide a permanent protected environment for the conduct of emergency operations.

During FY 1966 the following actions will be taken:

a. Select and acquire the sites for Regions ONE, TWO, THREE, FOUR, SIX, SEVEN, and EIGHT.

b. Initiate design on all 7 centers.

EMERGENCY OPERATIONS SUPPORT

The emergency operations support sub-element encompasses those activities required to effectively develop, implement, and support community shelter plans and over-all government emergency operations plans at Federal, State and local government levels.

In the execution of the emergency operations support functions, the following activities are required:

1. Emergency Operations Systems Development (EOSD). This is the development of civil defense doctrine and operational systems for all civil defense emergency functions. This is being accomplished by contract with Stanford Research Institute as the lead contractor.

A portion of the EOSD program was initiated during FY 1965 with results to be received in FY 1966. In FY 1966 the primary objective is to initiate and advance as far as possible the following:

- a. Crisis reporting system.
- b. Crisis shelter augmentation system.
- c. Crisis and in-shelter accelerated training and public orientation system.
- d. EOC (direction and control) system.
- e. Military support of Civil Defense.
- f. Austere nuclear fire defense system.
- g. Emergency Interment System.
- h. Emergency distribution and use of survival resources.
- i. Shelter allocation and CSP Development
- j. Municipal Officials Civil Defense Guidance Booklet
- k. Integrated Management Information System Development.

2. Radiological Defense Systems involves the establishment of an organized capability to detect, monitor, report, analyze, and evaluate radiological fallout situations nationwide. This is being accomplished by preparation of Federal Civil Defense Guide material and direct assistance by OCD regional personnel to State and local government civil defense authorities and OCD headquarters personnel assistance to other Federal agencies.

FY 1966 objectives will include activities in the following areas:

a. Shelter Monitoring - to determine where deficiencies exist in trained monitors assigned and to fill the deficits; to place all shelter kits that have been distributed into assigned shelters; to keep instruments in shelters operationally ready; increase the utilization of licensed, marked and stocked shelters as monitoring stations; issue 16,000 additional monitoring kits; permit bulk shipments to states and utilize the capabilities of the State's inspection, maintenance and calibration systems for positioning of monitoring kits.

b. Operational Monitoring and Reporting - To emphasize the establishment of at least one operational monitoring station at each city, town, village or community; emphasize monitoring stations at those rural and urban locations needed to obtain geographical area coverage; better integration of monitoring stations at the field facilities of Federal agencies; investigate large attrition of trained people and take corrective action; encourage local CD to make emergency assignments to trained people; establish 10,000 additional monitoring stations having required communications; increase the mobile monitoring capability by increasing capability at 35,000 stations; maximize protection at established stations and conduct a project to determine the actual operational capabilities of established monitoring stations.

c. Procurement of RADEF Equipment for fixed, mobile, and aerial monitoring purposes, for measuring individual radiation exposure, and for training and educational purposes is accomplished by determining the need through analyses and evaluation of State and local government emergency requirements and procurement through the OCD Management Directorate. Based upon the past experience in the development of a monitoring capability by the States and their political subdivisions, sufficient equipment is available for distribution in FY 1966.

d. Aerial Monitoring - There will be continuing development of Statewide aerial monitoring capabilities in each of the 50 States and major territories through the following:

1. Distribute 1,200 CD V-781 aerial survey meters.
2. Assist States in development and updating of plans and SOPs.
3. Assist FAA Regional Directors and NORAD Regional Commanders to write appendices to Security Control of Air Traffic and Navigational Aids.
4. Test State aerial radiological monitoring plans and procedures in conjunction with FAA and CAP exercises.

e. Post-attack Radiation and Exposure Control will be improved by preparation and distribution of guidance materials for use by State and local governments, the replacing or repairing of inoperative dosimeters and the preparation of a plan by each State for dispersed storage and utilization of dosimeters.

f. Decontamination Operations will be strengthened by revisions of the Federal Guide and the preparation of training material for inclusion in the OCD RADEF officers' courses.

g. Upper Winds Data Collection and Dissemination will be continued.

h. EOC RADEF Operations will be strengthened by encouraging the States and local governments to obtain the services of qualified RADEF Officers, to conduct State and county seminars, develop and review and up-date detailed operation RADEF plans for EOC operations.

A project will be initiated to prepare and issue exercise materials for in-service training and exercising of EOC RADEF staff members.

i. RADEF Equipment Maintenance and Calibration (State) and Local is being accomplished by contracts with the State at 100 per cent Federal funding to establish with State RADEF equipment inspection, maintenance, and calibration systems and to provide equipment and spare parts. In FY 1966 the experience developed in the pilot project with Nebraska will be further evaluated and the results disseminated to the other states. To further expand this program 35 States contracts will be renewed and an additional 17 contracts negotiated. The objective is to develop a calibration capability in each State by the end of FY 66.

j. RADEF Engineering Services include the development of RADEF equipment from the research phase to the mass production phase including production engineering, pilot production, production surveillance, field tests, and special projects involving maintenance manuals, cost effectiveness studies, value engineering, and logistic studies.

The objective of FY 1966 is to initiate and actively pursue engineering programs to improve reliability and lower the cost of instrumentation for radiological monitoring and reporting. This will include studies and tests of every phase of the RADEF Monitoring field.

k. Weather Services are provided for by the U. S. Weather Bureau through contractual arrangements. This includes the collection of UF data and transmission to services to OCD Regions and NCDCE. This will be continued in FY 1966.

l. Red Cross Advisory Services are provided to OCD by the American Red Cross by contractual arrangement. This includes liaison services to OCD national and regional offices involving local Red Cross chapters in the development and implementation of community shelter plans. This service will continue in FY 1966.

m. Warehousing and Transportation (including RADEF equipment for community shelters under the national shelter program) has been assigned to the Defense Supply Agency. This includes property management, receiving, warehousing maintenance and distribution of Federal civil defense equipment and, in some instances, the civil defense medical stockpile currently assigned to the Department of Health, Education and Welfare. The FY 1966 objective will be to meet the issue requirements of all RADEF operational programs, RADEF shelter requirements, engineering equipment loans and the receipt and inspection of all incoming RADEF equipment.

A study will be conducted to evaluate alternate methods for local civil defense directors to requisition shelter monitoring kits, better control at State level of shelter kit distribution and better and less time consuming or expensive distribution procedures and systems.

n. Program Management Information Systems provide for the design, development, and operation of management information and control systems to aid OCD Program Directors in planning, scheduling, evaluating, reprogramming, and reporting of civil defense programs.

Objectives for FY 1966 include the following:

1. Operate the Integrated Management Information System which provides OCD, the states, and local governmental units with management reports on the status of civil defense programs.

2. Continue the operational use of PERT networks, and automated projects.

3. Complete and operate Contracts Monitoring System

4. Complete and operate the Personnel Index (201 File).

5. Automate a system for Professional Advisory Services.

6. Develop an Operational Program Monitoring System.

TESTS AND EXERCISES

The mission of the Tests and Exercises Sub-Element is to improve the Civil Defense capabilities of Federal, State and local governments by providing a basis for evaluating the suitability of emergency plans and the means for carrying them out and to give realistic training to personnel. In no other way can many deficiencies and inadequacies in civil defense plans for emergency operations be identified so that corrective action can be taken.

This program is important at the local level because of the need for plans for community shelter systems and supporting sub-systems to be given practical tests and for staff to be exercised realistically in the operation of these systems.

The Tests and Exercises program provides for participation of OCD and where appropriate, of other Federal agencies and State and local governments, in the following exercises:

1. A national civil defense exercise conducted annually. OCD will be participating with other Federal agencies in Phase 2 of REX-66, to be held next spring. All states and a large number of local governments are also expected to take part. A feature of this phase will be joint activities with the Federal Aviation Agency to exercise State and Regional Defense Airlift (SARDA) plans.
2. Periodic military exercises, such as the DESKTOP series. Participation in these exercises is limited to the exercising and testing of OCD warning, Federal agency alerting, internal alerting procedures at national and regional levels, and other OCD readiness functions. OCD will participate, as appropriate in these exercises held during the year.
3. Civilian logistics or readiness exercises sponsored by the Office of Emergency Planning. Participation may be limited to OCD but often will include other agencies and State and local governments.
4. Regional exercises, some involving only OCD regional staff, and others bringing in other Federal agencies, State and local governments. OCD regional offices are arranging with State and local governments for the conduct of civil defense exercises, independent of any national exercise during the period from September to November. All States and some 6,000 local governments will take part.

In carrying out the Test and Exercise program, OCD establishes and maintains working relationships with Federal agencies and the military services at all levels as well as close liaison with the exercise staff of the Joint Chiefs of Staff, the Office of Emergency Planning and the exercise staff of the Continental Army Command.

FINANCIAL ASSISTANCE

This Sub-Element supports the development of the civil defense readiness of state and local governments by providing financial assistance on a 50-50 matching basis to state and local governments. These funds are for construction of emergency operating centers, training acquisition of supplies and equipment, and personnel and administrative expenses.

Federal surplus property is also donated to civil defense organizations to provide supplies and equipment for civil defense purposes.

This is designed to create an incentive and capability for state and local governments to accomplish the objectives of the national civil defense programs, and in particular, shelter development with emphasis on community shelter plans.

This Sub-Element is operated through the following activities:

1. Survival Supplies, Equipment and Training. During FY 66 emphasis will be placed upon those items which will support community shelter plans. These will include obligations for communications, warning, education services, engineering equipment and supplies, medical supplies and equipment, public safety devices, radiological maintenance equipment, optional shelter supplies and general equipment.
2. The Personnel and Administrative Expenses program which provides 50-50 matching funds for salaries, travel and other administrative expenses of state and local civil defense organizations will be maintained as close to 1965 levels as the appropriation will permit.

To assist the states and local participants to maintain the FY '65 level of employment and participation, OCD will establish a greater flexibility in reallocation of funds between localities and States. This will be accomplished by a more rigid day-to-day examination of funds at both state and local level to determine where funds should be withdrawn and where reallocated.

3. Surplus Property in the form of safety and rehabilitation devices, vehicles, communications and other miscellaneous items will continue to be provided to support civil defense programs with emphasis on donations of equipment identified by community shelter planning.

INFORMATION ACTIVITIES

It is essential that the civil defense program have some public support and the understanding and active support of the officials at all levels of government who are responsible for taking action in time of emergency. Without the active support and participation of these officials, public understanding and support will be lacking, and the objective of the civil defense program will not be achieved.

As a consequence, civil defense information involves many types of publics which have been grouped as follows:

1. External audiences which include the general public and identifiable smaller audiences within the general public such as representatives of mass media, management in businesses and industries, and organized professional and social groups.
2. Semi-internal audiences such as State and local government officials, State and local civil defense directors and their staffs.
3. Internal audiences which include OCD Headquarters and OCD Regional staffs and State and local civil defense directors and their staffs.

The information activities of the Office of Civil Defense at all times involve one or more of these audiences, and are carried out under four component headings, all of which utilize one or more of the recognized communications techniques such as publication in newspapers, radio and or television programming, films, pamphlets, speeches, exhibits, person to person contracts and the like. These are:

1. Information on the overall civil defense program, its objectives, how it functions, what is now being accomplished, and the goals for future accomplishments. Activities in this area in Fiscal Year 1966 will include the following:
 - a. Emphasis on National Security Aspects of Civil Defense
 - b. Providing current information on the Civil Defense Program
 - c. Information support of Community Shelter Planning

- d. Program Liaison with major mass communications media
- e. Maintenance of an information library and replenishment of materials
- f. Information support of OCD offices
- g. Programs to reach non-governmental organized groups and persons who attend scheduled events.

2. Civil Defense Guidance and Information in time of crisis which will include the preparation by Federal, State or local authorities of official information, advice or instructions to the public about where to go and or what to do, the techniques to be used in communicating with the public, at what points in time this information should be released, and how the release of the information should be authorized. To this end FY 66 activities will include:

- a. Development of Civil Defense Crisis Information Guidance and Materials.

- b. Public Information Requirements for Community Shelter Planning.

3. Industrial Participation which includes the preparation of materials and the furnishing of guidance to industries so that they will take survival measures and to encourage them to provide leadership and assistance in the civil defense program at all levels of government. Industrial Participation projects during FY 1966 will be directed to the following principal objectives:

- a. Obtaining cooperation of industries in taking actions to provide shelters for employees and, to the extent possible, for the general public. Also to improve shelter by ventilation and modification of existing structures and to organize and train employees to manage shelters and perform certain emergency services.

- b. Encouraging national trade associations and professional organizations to develop CD information and guidance materials directed to their members.

c. Encouraging and assisting other Federal agencies in developing and conducting comprehensive programs and activities directed to specific industries.

COMPUTER SUPPORT

The Computer Support Sub-Program provides the computer equipments and associated professional and technical services needed by OCD, its contractors and other Federal agencies doing work for OCD. The program includes operation of the National Civil Defense Computer Facility (NCDCE) by the USA/CE with reimbursement to them for operating the equipments and for the associated administrative overhead costs, computer system equipment maintenance, and operating supplies.

Computer support is provided in three main areas:

1. Damage Assessment (pre- and post-attack including support for Research Studies related thereto). This includes professional and technical talents to accomplish a wide range of pre-attack studies relating to vulnerability analysis and pre-attack planning covering the population and the resources of the nation. Also, to accomplish resource capability analysis in support of post-attack operations.
2. National Fallout Shelter Survey Support. This provides computer support, including professional and technical talents, to implement, update, and operate an Automatic Data Processing system applicable to shelter. The start of the basic master ADP system design to be implemented at the NCDCE will be undertaken in the second quarter of Fiscal Year 1966.
3. Management Support includes all computer support and related professional and technical talents, to implement, update and operate ADP Systems applicable to management with available NCDCE resources. This covers computer oriented management ADP Systems now in operation in the OCD Management Information Center as well as the Civil Defense Central Program Data Storage, Retrieval and Evaluation System now under study. In Fiscal Year 1966 it is planned to convert the computer programs use in the Management Information Center from 160A to the NCDCE computer system and to use and evaluate the data transmission system at the OCD National and Regional terminal points.

RESEARCH AND DEVELOPMENT

Civil Defense Research conducts a coordinated research effort in applying scientific knowledge and principles to develop the best methods, materials, techniques and equipment for National Civil Defense. This effort is in the nature of an investment which may be expected to pay dividends in future years. OCD directs a number of "output studies" each year to provide guidance for policy and operational decisions. This is a basic requirement for civil defense planning and for anticipating future program requirements.

OCD Research is implemented through inquiry and activity in the following areas:

1. Shelter Research, which is mainly concerned with applied research on the protection afforded by structures; the environment to be expected in shelter and its control; and the planning for organization and management of shelters. The following studies will be conducted in Fiscal Year 1966:

1. Protection Studies
2. Shelter Environment Studies
3. Subsistence and Habitability Studies
4. Component Development
5. Shelter Management Studies
6. Shelter Systems Studies

2. Warning Research, which is designed to develop an adequate technical basis (hardware and systems) for alerting the population of enemy attack. It will assist in the ability of civil defense to convey unambiguous warning to emergency organizations and to the public more rapidly, more clearly, and more universally than is now possible. Warning research for Fiscal Year 1966 will be applied to system analysis and requirements including:

a. A study of interactions between local, State and National warning (including military warning),

b. Further development and revision of requirements, including those of industrial and institutional organizations,

c. Analysis of the environment, nature, and format of warning signs and intelligence, and

d. An evaluation of the development of a warning system compatible with the use of blast shelters.

3. Emergency Operations Research, which is concerned with solutions to problems of immediate preattack, transattack and immediate postattack periods in the general areas of communications, command and control, and emergency operations support. Work will continue in the following fields in Fiscal Year 1966:

a. Monitoring Systems Studies

b. Communications Studies

c. Reduction of Vulnerability

d. Emergency Medical Research

e. Fire Effects and Protection

4. Postattack Research, which is primarily concerned with research and development of systems to be used for sustaining survivors of a nuclear attack and for the rapid restoration of the nation. The Fiscal Year 1966 program includes:

a. Radiological Phenomena and Effects

b. Radiological Countermeasures, Procedures and Processes

c. Repair and Reclamation of Damaged Facilities

d. Postattack Medical, Health and Welfare Operations

e. Recovery and Maintenance Systems Studies

5. Systems Evaluation, which provides evaluation and integration of other programs in the research effort and provides decision makers with sufficient information for rational determination of policy. Work will continue in the following areas during Fiscal Year 1966:

- a. Civil Defense System Analysis
- b. Projections of the Strategic Environment
- c. Vulnerability and Requirements Research
- d. Organization and Training Research
- e. Planning Support Research
- f. Information System Analysis

6. Management and Support, which is provided through two lead laboratories--the U. S. Naval Radiological Defense Laboratory and Stanford Research Institute which have been assigned responsibility for providing technical advisory services for substantial portions of the OCD Research program.

TRAINING AND EDUCATION

5 → The missions of OCD's Training and Education on activities are to provide essential instructional support for local emergency readiness systems growing out of the community shelter planning process, to establish, maintain and supply a nationwide system that can furnish this support.

Civil Defense training and education is based upon the use of existing and accepted instructional capabilities and the use of instructor training as an economical means of passing essential emergency skills to people in local units of government.

The national system of civil defense training operations is directed at five principal audiences. They are:

- 10 →
1. State and local public officials who have prime responsibilities for community shelter planning.
 2. Principal civil defense personnel who are in staff relationship to state and local authorities.
 3. Technicians in emergency operations.
 4. Individual citizens.
 5. Selected officials in federal agencies, the Armed Forces and professional associations.

5 - Development of the national civil defense training and education system and the instruction of the principal groups mentioned above are accomplished through the following activities:

- 10 →
1. Community Shelter Planning Training by contract with the Graduate School of Urban Planning in which CSP contract urban planners are given a one-week workshop on CSP techniques and assistance is given to the / OCD Staff College in developing and presenting a course for CD personnel from CSP contract jurisdictions.
 2. Operation of OCD College which develops instructional doctrine on community shelter planning, shelter management, emergency readiness, and develop training materials to support national programs and present an annual schedule of courses.

During Fiscal Year 1966 the OCD school will conduct 50 resident courses and 30 special courses.

new plan

3. The Student Expense Program will provide partial federal reimbursement for an estimated 1,940 students who will be attending OCD classes in Fiscal Year 1966.

4. The Civil Defense University Extension Program has 53 contracts in force in all states, the District of Columbia, and Puerto Rico for Fiscal Year 1966. These include 648 conferences for officials, 148 Shelter Management (Instructor) courses, 598 Shelter Manager courses, 216 Radiological Monitoring for Instructor courses, 160 Radiological Monitor courses, 121 Radiological Defense Officer courses, 205 Civil Defense Management courses, and continuing professional liaison with the contracting university via the University of Kansas.

5. Eight collections of Training Materials will be printed and distributed for use in various training channels in Fiscal Year 1966. Five home study courses will be produced, four existing training publications will be revised and reprinted and prints of 12 training films will be purchased and distributed.

6. Armed Forces and Associations

15 → a. In Fiscal Year 1966, 26 Army posts will give an estimated 300 courses for civilian radiological monitors and continuous liaison will be maintained with various Army offices to provide current CD doctrine in Army training issuances.

b. Support projects will be completed with the American Association of School Administrators and the Commission of Safety Education NEA in Fiscal Year 1966.

7. Requirements, Status and Evaluation will be implemented through five projects in Fiscal Year 1966. These will include individual training standards, Unity Training standards, in-service training survey, and a contract to evaluate selected training courses in the field.

8. The Civil Defense Adult Education program will hold 10,000 Personal and Family Survival classes and 2,000 Radiological Monitoring classes in Fiscal Year 1966. The Personal and Family survival course will be field-tested in TV program-format.

9. Medical Self Help courses will approximate 20,000 in Fiscal Year 1966 and previously produced supporting training films will be given national distribution.

10. Rural Civil Defense, conducted by the Department of Agriculture will feature improved reporting and information materials, clearance procedures, and coordination with CD officials at regional, state and community levels. Rural CD leaders will be encouraged to take an OCD sponsored Civil Defense Management course and regional Agricultural Engineers will take a Shelter Analysis course in Fiscal Year 1966.

OFFICE OF CIVIL DEFENSE
 ANALYSIS OF CONGRESSIONAL ACTION ON FY 1966 PRESIDENT'S BUDGET REQUEST
 (Millions of Dollars)

	President's Budget	House Allowance	Senate Allowance	Final	Supp. Request (H. Doc. 278)
<u>Grand Total, Civil Defense</u>	<u>193.9</u>	<u>89.19</u>	<u>124.37</u>	<u>106.780</u>	<u>106.780</u>
<u>Operation and Maintenance</u>	<u>79.2</u>	<u>58.99</u>	<u>69.17</u>	<u>64.080</u>	<u>64.080</u>
1. State & Local CD Personnel and Admin. Expenses	18.5	9.25*	16.0*	12.625*	16.000
2. OCD Management Expenses.....	14.6	10.15*	13.15*	11.650*	12.400
3. Other Recurring Operations	46.1	39.59	40.02	39.805	35.680
<u>Research, Shelter Survey & Marking</u>	<u>114.7</u>	<u>30.2</u>	<u>55.2</u>	<u>42.700</u>	<u>42.700</u>
4. Shelter Survey & Marking	13.3)				
5. Smaller Structures Survey	23.0)				
6. Improvement of Shelters	29.2)	12.4	37.4	24.900	24.900
7. Shelter Development	3.0)				
8. Federal Regional Emergency Operating Centers	7.8	7.8*	7.8	7.800	7.800
9. Shelter Provisions	23.4	0	0	0	0
10. Research and Development	15.0	10.0*	10.0	10.000	10.000

*Items for which the House or Senate has indicated a specific line-item allowance.