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# TAKING MEASURE

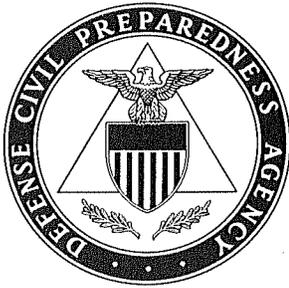
ANNUAL REPORT  
1975

DEPARTMENT OF DEFENSE  
DEFENSE CIVIL PREPAREDNESS AGENCY

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# TAKING MEASURE

FOURTH ANNUAL REPORT  
OF THE  
*U.S.* DEFENSE CIVIL  
PREPAREDNESS AGENCY

FISCAL YEAR ENDED  
JUNE 30, 1975

# LETTERS OF TRANSMITTAL

The Secretary of Defense

**February 20, 1976**

## MEMORANDUM FOR THE PRESIDENT

In compliance with Section 406 of the Federal Civil Defense Act of 1950 and Section 5 of Executive Order 10952 of July 20, 1961, I submit herewith the fourth annual report of the Defense Civil Preparedness Agency, covering civil defense functions assigned to me.



Donald H. Rumsfeld

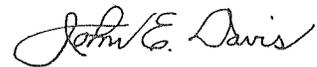
Department of Defense  
Defense Civil Preparedness Agency

**February 13, 1976**

## MEMORANDUM FOR THE SECRETARY OF DEFENSE

The fourth annual report of the Defense Civil Preparedness Agency is attached.

As indicated by the report title "Taking Measure," and as a result of the new DCPA Program Management System initiated during fiscal year 1975, the report reflects objectives and fiscal year 1975 status of DCPA on-going programs.



JOHN E. DAVIS  
*Director*

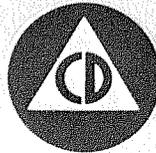
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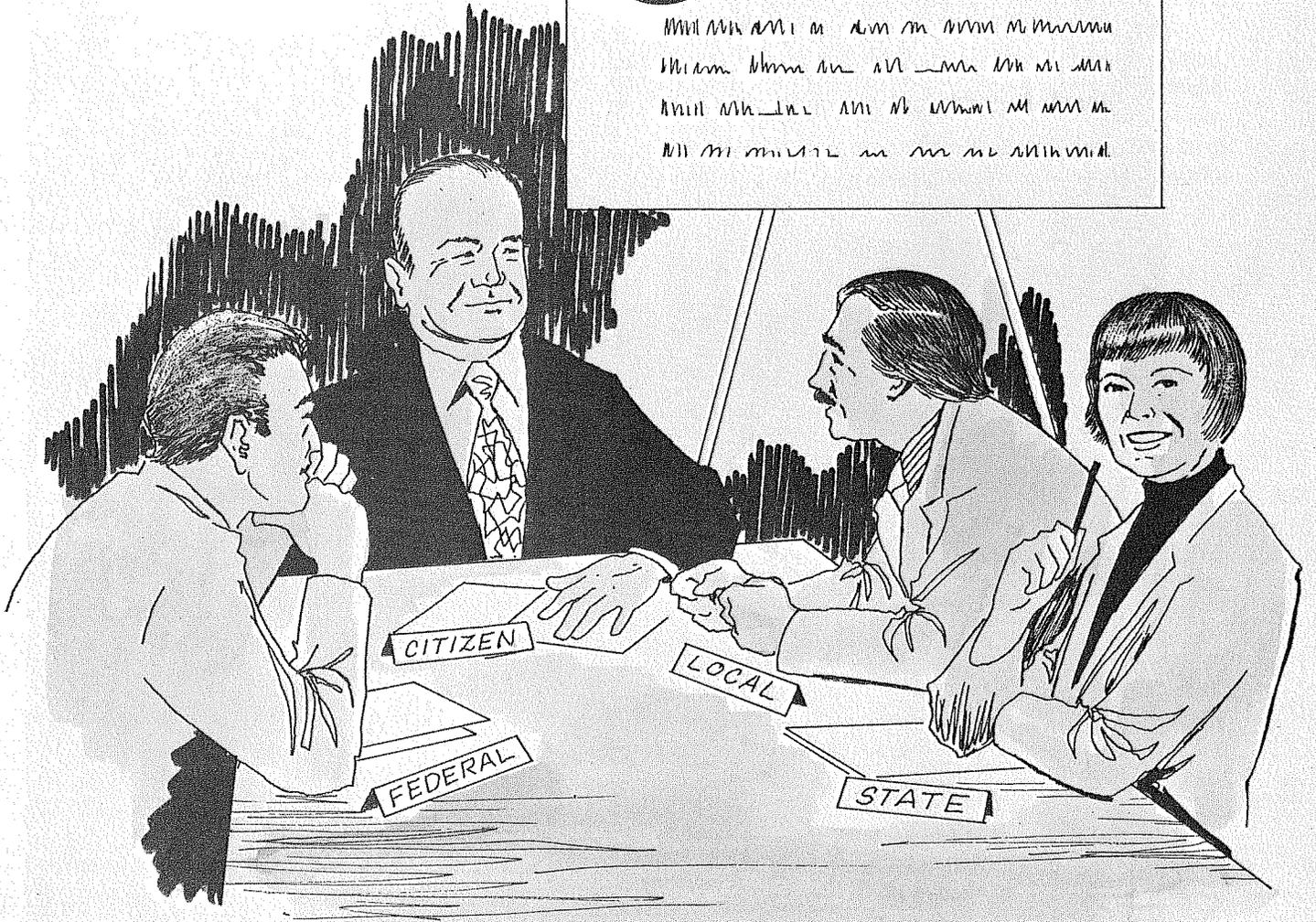
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# HIGHLIGHTS



## CIVIL PREPAREDNESS MANAGEMENT

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# HIGHLIGHTS

## THE DCPA PROGRAM

**OBJECTIVE: TO MAKE THE COMMUNITY, AND CITIZENS WITHIN THE COMMUNITY, BETTER PREPARED TO DEAL WITH THE EFFECTS OF NUCLEAR ATTACK. SUCH READINESS MEETS AN IMPORTANT SECONDARY OBJECTIVE: AN IMPROVED READINESS TO CONDUCT COORDINATED LOCAL EMERGENCY OPERATIONS IN PEACETIME EMERGENCIES OR DISASTERS.**

Over the past years, the Defense Civil Preparedness Agency (DCPA) pursued various means of fulfilling joint obligations with the State and local governments in developing and maintaining nationwide civil preparedness. At State and local level the prime objective was the same—but ideas and methods for reaching the always-elusive goal sometimes didn't mesh with Federal concepts and programs. "Federally imposed" programs, offering Federal matching funds and sometimes surplus and excess property, didn't always go down well. Often when the funds and property and program guidance reached the community, they seemed ill-suited to meet the actual local needs and local capabilities for applying them effectively.

A few years ago, a new idea in management began to take hold; its name—participatory management. The concept wasn't really new, but as managers both in and out of government looked around, they were surprised to see how little "participation" there was by everyone concerned in various systems. DCPA encouraged participatory management in civil preparedness—and took a good hard look at its own programing and management system. DCPA's system was functional—but it was cast in the old mold; it was topheavy in superstructure, designed around national objectives; and weak at the foundations, with funds trickling down to communities in thinly sliced allotments based on those national objectives; and with little hard data and other information on which to determine total *local needs*.

After a full year of development, DCPA now has an "objectives oriented" system, based on a good, firm foundation of finding out local needs in relation to the overall objectives of the national program. The program and budget needs of all participating local governments are gathered and assessed by the States. The DCPA Regions, in turn, do the same with each State program and budget

submission. And the Regional program and budget requests are then passed along to DCPA Headquarters.

The system recognizes that emergency preparedness needs and effort necessarily vary with each level of organization. The system therefore is organized in four distinct levels: (1) the citizen, (2) the community, (3) the State, and (4) the Nation.

Briefly, the new management system encompasses not only the basic establishment of objectives, but also programing, budgeting, reporting, and evaluation. The last two elements—reporting and evaluation—are in the long run fully as important as the other elements. As hard data and information develop on ongoing programs—from the communities to the States, and on to the Regions and then to DCPA Headquarters, DCPA will have a continuously developing, more firm and more realistic foundation on which to base future objectives and growth.

All civil preparedness program areas at local, State, and Federal levels are involved in implementing the new "objectives oriented" system. Considerable effort at all levels is necessary for it to function effectively; to be useful in achieving the always challenging goal of preparedness.

## MEASUREMENTS

Throughout this report reference is made to 54 State-level and 6,438 local program areas. The 54 State-level program areas include the 50 States, Guam, Puerto Rico, The Virgin Islands, and the District of Columbia. The 6,438 local program areas include counties, cities, towns, and combinations of these in the United States.

Assessment of civil defense State-level and local program area needs versus fiscal yearend 1975 status of DCPA on-going programs showed the following:

### I. MANAGEMENT

• Each of the 54 State-level program areas, and 3,917 or 61 percent of the 6,438 local program area civil defense organizations had an ordinance which established the civil preparedness organization; 78 percent of the population of the United States is located in program areas covered by local ordinances.

• Each of the 54 State-level program areas, and 2,325 or 36 percent of the local program area civil defense organizations participated in the DCPA Personnel and Administrative Expenses

Program; 61 percent of the population of the United States is located in local areas participating in this program.

- 45 or 83 percent of the State-level, and 4,674 or 73 percent of the local program area civil defense organizations had an Emergency Operations Plan (EOP) completed; 81 percent of the population of the United States is located in local program areas with completed EOP's.

- 10 or 19 percent of the State-level, and 753 or 12 percent of the local program area civil defense Directors/Coordinators were fully trained.

## **2. FACILITIES**

- 139 or 36 percent of the required 381 State or State-Area Emergency Operating Centers (EOC's), and 3,755 or 71 percent of the required 5,321 local program area Emergency Operating Centers were established.

- 132 or 35 percent of the State or State-Area, and 925 or 17 percent of the local program area Emergency Operating Centers were established with Federal matching funds.

- 131 or 34 percent of the State or State-Area, and 1,927 or 36 percent of the local program area EOC's had planned emergency staffs assigned.

## **3. COMMUNICATIONS**

- 40 or 74 percent of the 54 State-level, and 2,693 or 42 percent of the 6,438 local program areas had a completed Communications Plan; these plans covered 68 percent of the U.S. population.

- 42 or 78 percent of the State-level, and 2,195 or 34 percent of the local program areas had Radio Communications Capability established between their EOC and Primary Local Operating Forces.

- 41 or 76 percent of the State-level, and 3,319 or 52 percent of the local program areas had Wire-line Communications Capability established between their EOC and Primary Local Operating Forces.

- 30 or 56 percent of the State-level, and 1,743 or 27 percent of the local program areas with communications systems had a completed Radio Amateur Civil Emergency Service (RACES) plan; these completed plans covered 51 percent of the U.S. population.

## **4. WARNING**

- 42 or 78 percent of the 54 State-level, and 2,769 or 43 percent of the 6,438 local program areas had a completed Warning Systems Plan; these completed plans covered 65 percent of the U.S. population.

- 40 or 74 percent of the State-level, and 3,833 or 60 percent of the local program areas had a capability for receiving National Weather Service warnings; 77 percent of the U.S. population is covered by Warning Systems with this capability.

## **5. EMERGENCY PUBLIC INFORMATION**

- 24 or 44 percent of the 54 State-level, and 1,743 or 27 percent of the 6,438 local program area Emergency Public Information System Plans (EPISP) were completed; 54 percent of the U.S. population is located in program areas with completed EPISP's.

- 24 or 44 percent of the State-level, and 2,340 or 36 percent of the local program areas had an Emergency Public Information System that included an Agreement with the Media for dissemination of public information; 56 percent of the U.S. population is located in local program areas with such agreements.

## **6. RADIOLOGICAL DEFENSE**

- 31 or 57 percent of the 54 State-level, and 2,518 or 39 percent of the 6,438 local program areas had a completed Monitoring and Reporting Network Operationally Ready Plan; 64 percent of the U.S. population is located in local program areas with such plans.

- 20 or 37 percent of the State-level, and 1,238 or 19 percent of the local program areas had Self-Support Activities Operationally Ready Plans completed; 37 percent of the U.S. population is located in local program areas with such plans.

- 29 or 54 percent of the State-level, and 2,226 or 35 percent of the local program areas had an Operationally Ready Monitoring and Reporting Network; 57 percent of the U.S. population is located in local program areas with such networks.

- 20 or 37 percent of the State-level, and 1,346 or 21 percent of the local program areas had an Operationally Ready system for Self-Support Activities; 46 percent of the U.S. population is located in local program areas with such systems.

- 137 or 18 percent of the required 745 State-level, and 3,503 or 34 percent of the required 10,238 local program area Radiological Defense Officers were fully trained.

## **7. PLANNING**

- 4,513 or 70 percent of the local program areas had a Community Shelter Plan completed covering 76 percent of the U.S. population.

- 1,043 or 28 percent of the required 3,767 program areas designated for On-Site Assistance had been surveyed; 28 percent of the U.S. population is located in these program areas.

- 809 or 21 percent of the required 3,767 program areas designated for On-Site Assistance had an adopted Action Plan; 22 percent of the U.S. population is covered by these plans.

# FACILITIES



# FACILITIES

**OBJECTIVE: PROVIDE FOR PROTECTED REGIONAL EMERGENCY OPERATING CENTERS AT ALL DCPA REGIONS TO OBTAIN A FEDERAL CAPABILITY TO OPERATE UNDER RADIOLOGICAL FALLOUT AND LOW-LEVEL BLAST CONDITIONS.**

### **REGIONAL EMERGENCY OPERATING CENTERS**

**Sub-Objective:** To provide for the capability for DCPA Regional staff and other Federal agency personnel to direct the execution of civil defense functions under nuclear wartime conditions, and to receive and transmit warnings, fallout predictions and situation reports.

To assure continuity of Federal field emergency operations, underground Federal Operating Centers have been constructed in six of the eight Defense Civil Preparedness Agency (DCPA) Regions. The underground centers for the remaining two Regions have been postponed until fiscal year 1978, or later. The underground centers house the Regional staffs of DCPA and representatives of other Federal Agencies. The buildings provide substantial protection against the effects of nuclear weapons. They contain a 30-day supply of fuel, food, and other supplies and have their own water supply and power for emergencies. These centers have communications that tie all the States in their Regions into one network with the Defense Civil Preparedness Agency. Underground centers now operational are located at Region One, Maynard, Mass.; Region Two, Olney, Md.; Region Three, Thomasville, Ga.; Region Five, Denton, Tex.; Region Six, Denver, Colo.; and Region Eight, Bothell, Wash. The centers to be completed are for Regions Four, now located at Battle Creek, Mich., and Seven, now located at Santa Rosa, Calif.

Plans call for fitting each Regional Center with protection against the effects of electromagnetic pulse (EMP). The centers at Regions Two, Three, and Six have been so fitted, and during this fiscal year, construction was initiated on the Region Five and Eight facilities; and the drawings, specifications, and contractual documents for the EMP retrofitting of Region One were prepared.

### **STATE AND LOCAL EMERGENCY OPERATING CENTERS**

**STATE OBJECTIVE: PROVIDE FOR**

**STATE-LEVEL EMERGENCY OPERATING CENTERS (INCLUDING, WHERE APPROPRIATE, STATE-AREA LEVEL) WHICH WILL PROVIDE CHIEF EXECUTIVES AND THEIR KEY OFFICIALS A CENTRAL FACILITY FROM WHICH THEY CAN MEET EMERGENCY RESPONSIBILITIES OF GOVERNMENT.**

**LOCAL OBJECTIVE: PROVIDE FOR LOCAL-LEVEL EMERGENCY OPERATING CENTERS WHICH WILL PROVIDE KEY OFFICIALS A CENTRAL FACILITY FROM WHICH THEY CAN DIRECT AND CONTROL COORDINATED LIFESAVING EMERGENCY OPERATIONS.**

The final measure of civil preparedness today is what it achieves at the local level. A civil preparedness program should be flexible enough to cope with all types of emergencies. Every State and local government should have an Emergency Operating Center. Without this, the emergency operations plan, no matter how carefully drawn, may fail to function properly. There should be a central source of authority and information to provide for the needs that will inevitably spring from any widespread disaster.

An Emergency Operating Center (EOC) is a protected facility where the government executive, his department heads, and other key officials can exercise direction and control over those activities of government which are essential to the saving of lives, safeguarding of property, and restoration of governmental services during and following a major emergency. The Center is a focal point for warning and emergency communications—including emergency public information. Although EOC's are promoted by DCPA primarily for use in event of nuclear attack, they are frequently used by local governments during peacetime disasters such as hurricanes, earthquakes, widespread fires, floods, and ice and snow storms. In a nuclear attack emergency, EOC's would serve as focal points for emergency activities such as attack warning, receiving and issuing fallout information, directing the movement of people to shelters, damage assessment, and dissemination of official information to the public.

In many communities, EOC's are also in day-to-day use as the normal headquarters of government units such as civil defense, police or fire departments. Such dual-use is encouraged by DCPA.

Development and construction costs of EOC's which meet Federal standards may be matched

up to one-half with Federal funds. The primary source of supplies and equipment needed in civil emergencies would be those used in the day-to-day peacetime operations of Federal, State, and local governments. For example, existing communications systems would be used to fulfill most emergency communications requirements, and would be augmented only as necessary to assure coordinated emergency operations. Special items of equipment may be required to meet unique civil preparedness needs. Centralized control of operations is essential to assure the most effective use of services, facilities, and supplies.

Federal standards recommended for all EOC's and required for Federal financial assistance, include fallout protection, emergency generators and fuel, sufficient food, water, and medical supplies to maintain the emergency staff for at least 14 days, a ventilation system, emergency communications and warning systems and equipment, and sufficient space for an augmented staff.

To receive Federal financial assistance, local civil preparedness directors or other appropriate officials must submit project applications, with justifications, to the State civil defense agency. Upon approval, an application is forwarded to the DCPA Regional Office. If approved at that level, the applicant is notified, and the purchase may be made.

To be eligible for DCPA matching funds assistance, an EOC for which funds are requested must be included in a State plan for Statewide EOC development. The plan submitted by the State lists by category and type the number of EOC's required for complete and effective Statewide emergency operations under nuclear attack.

During fiscal year 1974, the policy of providing Federal matching funds for the basic EOC building shell was terminated. The current policy is to match funds for developing EOC space in existing public buildings. Where it is not possible or feasible to

develop EOC's through modification of existing space, financial assistance is provided toward the costs of developing EOC space in planned new public buildings.

During the period of fiscal years 1962 through 1975, nearly \$69 million in Federal matching funds were obligated to assist State and local governments in the planning, design, construction, and equipping of 132 State-level and 925 local EOC's.

DCPA plans were initiated during fiscal year 1975, for fitting each of the 50 State Emergency Operating Centers with electromagnetic pulse (EMP) protection for their Civil Defense National Radio System (CDNARS) communications equipment. Providing this protection will improve communications capability between Federal and State Emergency Operating Centers during and following nuclear attack.

### **PROGRAM STATUS—JUNE 30, 1975**

- 139 or 36 percent of the required 381 State and State-Area Emergency Operating Centers (EOC's), and 3,755 or 71 percent of the required 5,321 local program area EOC's were established.

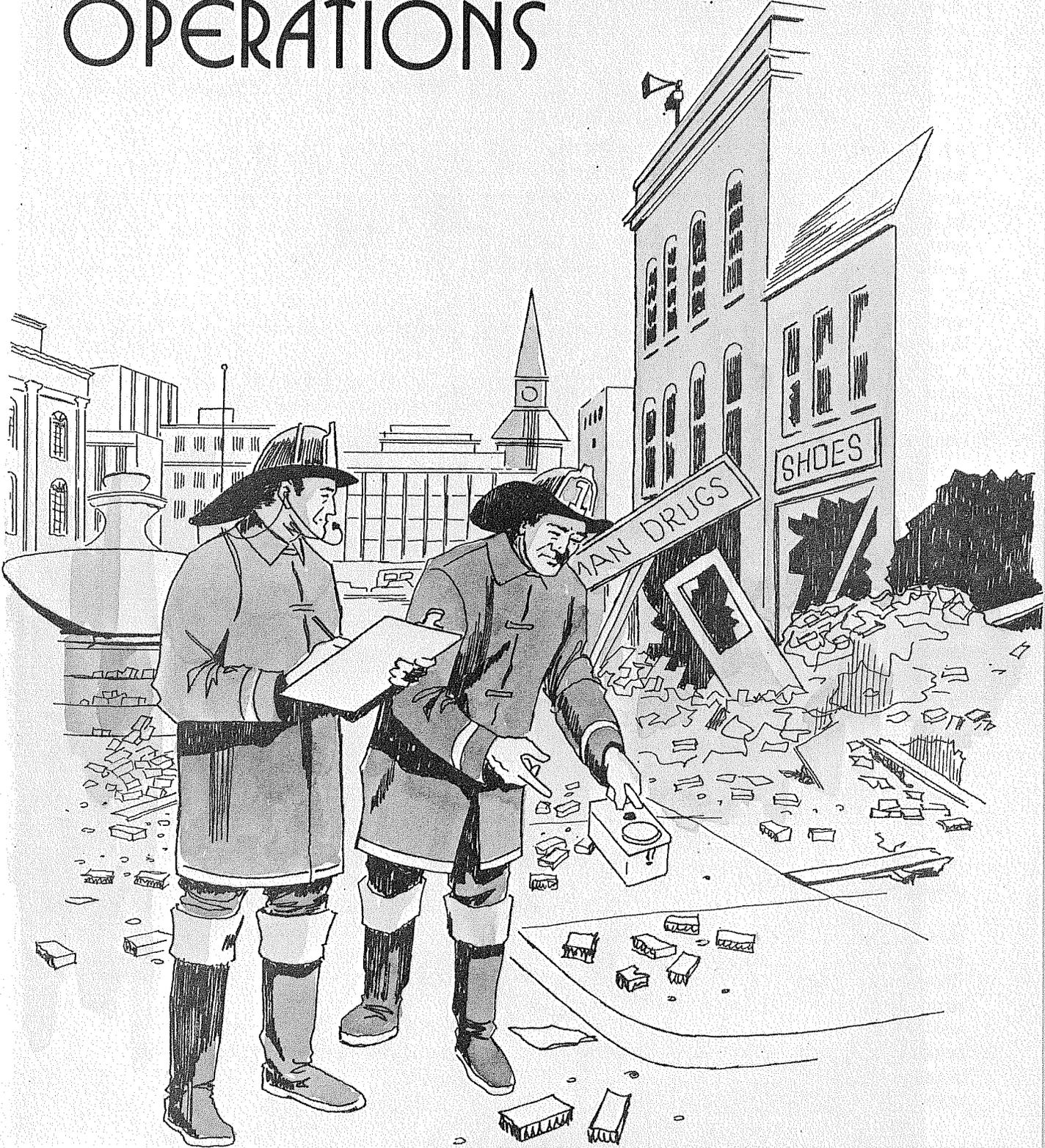
- 132 or 35 percent of the State and State-Area EOC's, and 925 or 17 percent of the local program area EOC's were established with Federal matching funds.

- 131 or 34 percent of the State and State-Area EOC, and 1,927 or 36 percent of the local EOC required operating personnel identified in the EOC Operations Plan were assigned.

- 115 or 30 percent of the State and State-Area EOC's, and 1,888 or 35 percent of the local EOC's had all of the required communications equipment identified in the EOC Operations Plan in place.

- 134 or 35 percent of the State and State-Area EOC's, and 1,574 or 30 percent of the local EOC's had adequate emergency power together with 14 days fuel supply available.

# EMERGENCY OPERATIONS



# EMERGENCY OPERATIONS

## OPERATIONAL PLANNING

**OBJECTIVE: PROVIDE FOR THE DEVELOPMENT OF INFORMATION AND DATA NEEDED BY FEDERAL POLICY AND DECISION MAKERS FOR PLANNING AND EXECUTING THE CIVIL DEFENSE PROGRAM; FOR IMPROVING THE EFFECTIVENESS OF NATIONWIDE OPERATIONAL SYSTEMS PROCEDURES AND HARDWARE; AND FOR THE DEVELOPMENT OF FEDERAL, STATE, AND LOCAL GUIDANCE FOR EFFECTIVE PLANS, SYSTEMS, AND CAPABILITIES FOR COORDINATED OPERATIONS, TO BE USED IN SAVING LIVES AND PROTECTING PROPERTY IN THE EVENT OF LARGE-SCALE CRISIS AND EMERGENCIES OF ALL KINDS.**

### Federal Planning

#### Damage Assessment

**Sub-Objective: To provide for the development and maintenance in readiness of systems capable of undertaking a nationwide postattack assessment of the nature and extent of damage resulting from enemy attack and of surviving resources. Further, to provide for development and use of capabilities to estimate potential damage to people and resources based upon varying enemy capabilities and civil defense postures.**

Executive Order 10952, as further delegated by DoD Directive 5105.43, requires the Defense Civil Preparedness Agency to develop plans and operate systems to undertake a nationwide postattack assessment of the nature and extent of the damage resulting from enemy attack and the surviving resources. To meet this responsibility, DCPA conducts continuing planning in cooperation with other components of the Department of Defense, other Federal agencies, and State and local governments for both direct on-site assessment and reporting of damage and indirect assessment. Indirect damage assessment is achieved by means of calculations based on the type, size, and location of nuclear detonations and their proximity to facilities and resources of interest and the relative physical vulnerability of these facilities to nuclear weapons effects. To further these capabilities, emergency reporting systems are maintained, and a variety of computer programs are

designed, developed, and operated. These computer programs are also used for preattack studies of vulnerability. Additionally, through simulation techniques, they provide for the analysis of the probable effects of a wide variety of possible attacks. These tools enable DCPA to understand the problems which the Nation and its cities would face in a nuclear war and to develop more effective civil preparedness programs.

#### Emergency Operations Planning

**Sub-Objective: To provide for the development and field testing of guidance and programs for State and local governments concerning development and use of capability for saving lives and protecting property in the event of large-scale crises and emergencies of all kinds.**

Constant attention in Emergency Operations Planning is devoted to ensuring the maximum dual-use benefit for the community in developing a capability to cope with natural disasters, environmental emergencies, civil disturbances, and other present day hazards, as well as nuclear war emergencies.

People, facilities, equipment, and supplies are the basic ingredients of local emergency operations capability. Emergency Operations Planning develops guidance on meshing all of these resources in the most effective and economical way for emergency operations. Emergency Operations Planning is conducted in close consultation and cooperation with State and local officials, and with professional organizations such as the International Association of Fire Chiefs, and the International Association of Chiefs of Police.

Projects included under this program generally include distillation of existing research; evaluation of problems resulting from attacks and other hazards; analysis of State and local capability to cope with these problems; and recommendation of Federal-State-local programs, systems, and procedures needed, together with field tested guidance, training materials, and programs.

Through fiscal year 1975, this effort has produced program packages in such areas as community shelter planning, Emergency Operating Center staffing, organization and exercising, local government emergency operations planning, increased readiness actions, provision of On-Site Assistance to aid local governments to increase their emergency readiness, and development of techniques for crisis relocation

planning. Some of these developmental projects are discussed below:

● *Crisis Relocation Planning (CRP)*.—The Secretary of Defense, James R. Schlesinger, stressed in his fiscal year 1976 Annual Report to the Congress that the civil defense program should reflect the wider range of response options that is being introduced into U.S. military planning. He pointed out that the USSR for many years has given a great deal of attention to civil defense, including both shelter and planning to evacuate the bulk of the population from major cities in the event of a severe crisis. Thus, the Soviet leaders have the option to evacuate the cities, or to shelter the population in-place, depending upon their assessment of the situation at the time.

The Secretary said the United States should have a similar option for two reasons: (1) to be able to respond in kind if the USSR attempts to intimidate the United States in a time of crisis by evacuating the population from its cities; and (2) to reduce fatalities if an attack on our cities occurred. Repeated studies show that evacuation of the bulk of the population from major metropolitan areas could save some 70 million lives in an all-out Soviet attack on the United States—over and above the lives that could be saved by effective programs based on protecting the population in-place.

Accordingly, DCPA continued both research and developmental work on crisis relocation planning during fiscal year 1975. In addition to nine pilot projects which are discussed later in this report, fiscal year 1975 crisis relocation developmental work involved projects initiated with the Texas State Civil Preparedness Office and with local authorities in San Antonio; in Comal, Live Oak, and McMullen Counties (near San Antonio); in Waco and Hill and Falls Counties; and in Beaumont/Port Arthur and Jasper County. Local civil defense and other officials participated in the development of crisis relocation plans for their communities. Based on this experience, handbooks were developed for use by local planners elsewhere. Military reservists, supporting local civil preparedness offices under the Civil Preparedness Mobilization Designee (CP MOBDES) Program play a significant role in the local planning for the contingency of crisis relocation.

● *Mutual Assistance Planning*.—Large-scale peacetime disasters often create a need for operational support from nearby jurisdictions. The kind of support needed depends on the disaster but may

include support of firefighting, police, medical, or public works personnel and equipment. Planning includes identification of forces and personnel available for mutual assistance to a stricken area, and the development of procedures for requesting support. Mutual assistance planning requires review of State and local legislation; and in some cases, may require amendment to interjurisdictional laws. During fiscal year 1975, a project to develop a mutual assistance handbook was underway. Based on work involving 13 Alabama Counties the handbook will be completed during fiscal year 1976, and will be suitable for use by other States and localities.

● *Computer-Assisted Natural Disaster Operations*. Work continued during the fiscal year to develop and test a system for assisting local governments in planning for natural disasters. The system uses existing computer programs as well as other data from local sources and the Bureau of the Census. Outputs include numbers of people and resources in a disaster area, and allocation of the population to temporary lodging. Testing will be completed during fiscal year 1976.

● *Evaluation Summary*.—A system for evaluating emergency readiness of local jurisdictions was given final field-testing during fiscal year 1975. The system involves evaluation of both tangible and intangible aspects of local readiness for dealing with major emergencies, with emphasis on ability to conduct emergency operations. The tested Evaluation Summary will be implemented during fiscal year 1976, as part of the annual Program Paper submitted by nearly 5,000 local jurisdictions.

#### **Radiological Defense (RADEF)**

***Sub-Objective:* To provide for the development and field testing of guidance, procedures and resource requirements necessary for the development of radiological emergency response plans at all levels of government for both nuclear attack and peacetime nuclear incidents.**

Radiological defense is an essential and perhaps the most unique element of the Federal planning effort for the nuclear attack contingency. Radiological defense provides for emergency response to the fallout radiation environment to which survivors of a nuclear attack would be exposed. This radiation environment has no peacetime counterpart considering its potential magnitude and the severity of its effects on the population. Radiological defense planning at the Federal level is directed to meeting

the needs of States and localities for ready, reliable, and effective operational radiological defense systems. The Federal effort includes development, procurement, and distribution of RADEF instruments, development and implementation of training programs, and assistance to States and localities in the preparation of adequate emergency response plans for meeting the fallout radiation threat. The Federal effort includes projects for continuous improvement of all elements of State and local RADEF systems and for the integration and coordination of these systems with related planning activities for nuclear attack.

Systems in everyday use have a greater probability of being available for use in emergencies. Therefore, emphasis is placed on the dual-use of radiological detection and monitoring resources. Application of this concept has been to incorporate ongoing peacetime activities into emergency response systems, and to make available DCPA RADEF resources to enhance peacetime emergency operational capabilities. Opportunities for such dual-use have arisen through the increasing use of nuclear power and radioactive materials which increase the possibility of peacetime accidents. Therefore, DCPA continues to work with other Federal agencies having responsibilities in the area of radiological incident emergency response planning. DCPA is working with the Nuclear Regulatory Commission, Energy Research and Development Administration, Department of Transportation, Federal Disaster Assistance Administration, Office of Preparedness/GSA, Environmental Protection Agency, and the Department of Health, Education, and Welfare in planning response for radiological incidents resulting from transportation or nuclear power plant accidents. As a result of this cooperative effort, it has been learned that many DCPA resources are immediately applicable for use in peacetime radiological emergency response. These resources include radiological instrumentation provided for use under nuclear attack and which can be used by personnel having additional specialized training. The DCPA Staff College has developed a course for teaching the fundamentals of planning as applied to emergency response for nuclear power plant incidents where significant radioactive materials might be released beyond plant boundaries. Other resources being studied for possible adaptation to peacetime radiological threats include the DCPA Radiological Defense Officer and Radiological Monitor Training Programs, and the Warning and Communications Systems.

## Research and Development

**Sub-Objective:** To provide for planning and directing a continuing civil preparedness research and development program to evaluate the hazards associated with nuclear weapons effects; to develop means for reducing vulnerability to these effects; to upgrade the technical basis for the emergency operations; to develop techniques and conduct civil defense and strategic systems analysis; and to translate the findings to natural disaster applications as appropriate.

The research program is conducted through contractual arrangements with governmental, educational, and private research organizations. The four general research categories are Hazard Evaluation and Vulnerability Reduction, Emergency Operations Systems, Damage Estimation and Operations Analysis, and Systems Evaluation. Significant accomplishments made during fiscal year 1975 in these research categories follow:

*Hazard Evaluation and Vulnerability Reduction.*—Fiscal year 1975 accomplishments in the area of Hazard Evaluation and Vulnerability Reduction Research include:

- More realistic estimates of the "spotty" nature of fallout deposition were developed, and an assessment of transoceanic fallout on the U.S. which might occur as a result of an Asian war showed that generally, it would not be a major problem.
- Sophisticated calculations can now be made in lieu of more expensive experiments to evaluate the penetration of initial nuclear radiation into concrete structures.
- Use of earth for improving the protection factor of existing buildings has been demonstrated both experimentally and analytically, and it appears that CRP host counties offer more shelter than originally supposed.
- Estimates can now be made on fallout damage to crops at various growth stages.
- A completed study showed that it is feasible to incorporate a measure of blast protection into new buildings.
- A computer program which permits determination of the response of building elements to blast waves was prepared.
- A study on the vulnerability of the instrument industry, which would be crucial to postattack recovery, was completed.

● A study showed that mines and caves can furnish excellent fallout and blast protection.

● Advance was made in describing the extent of injuries likely among people exposed to direct weapons effects.

● Work was undertaken to develop means of improving shelter for key workers during a crisis buildup period.

*Emergency Operations Research.*—Significant accomplishments in the area of Emergency Operations Research included:

● A study on EMP protection of power systems was completed. It recommended surge arrester standards and test procedures for EMP protection of electrical equipment. A long-range program for EMP protection of power distributors was developed.

● An evaluation of communications required in support of CRP was started. This work will include movement—its initiation and control—as well as public information, before, during, and after relocation has been started. From a research standpoint, this is a challenging area of study.

● An analysis of the problems associated with electric power requirements in crisis relocation planning was completed. Sample plans for power generation and maintenance were developed for use by both private and public electric utility sectors. The plans are applicable for use in either postevacuation or postattack environments.

● The civil preparedness warning system, including the National Warning System (NAWAS) and State and local systems, was analyzed and evaluated. The relation of attack and natural disaster warning was assessed, and specific problems were identified and corrective recommendations made.

● A study was initiated to identify transportation problems associated with CRP and to develop practical approaches to their resolution.

● An analysis of public safety functions, in support of crisis relocation strategy with the roles of law enforcement, fire protection, and rescue medical services defined was nearing completion by fiscal yearend. Recommendations for development of sound public safety operations were made, and the analysis project will produce prototype public safety relocation plans and a general planning guide.

● Research work on burn therapy was documented in a final report titled, "Mechanisms of Morbidity and Mortality Following Trauma: Burn." A final report titled "Protracted Radiation

Effects on Humans" will provide sound and credible reference for disaster planning.

● Progress was made in developing an approach for management of medical problems resulting from population relocation. Completed reports include: "Analytical Report," "Health and Medical Guidance for Crisis Relocation Planners," and "El Paso County-Colorado Springs Crisis Relocation Plan (Prototype)-Health and Medical Service."

● A set of preliminary prototype plans for Crisis Relocation Planning was prepared for Colorado Springs, Colo., and its host area. Support requirements for evacuees were investigated and their magnitude evaluated. Planning guidance was prepared and areas requiring additional research identified.

● Work in adapting the nuclear dial-a-scenario system design to a full range of natural disaster computerized scenarios was nearly completed. Some scenarios for the more frequent types of natural disasters were completed during the year.

● A civil preparedness public education student manual and teacher's supplement were released for use at the Junior High School level during fiscal year 1973. A research study was undertaken during fiscal year 1975 to evaluate user reaction and to assess program effectiveness. Results showed a definite need for the manual which is widely used in public school systems, and indicated a need for civil preparedness training materials at the elementary and high school levels.

● Studies show that 9 out of 10 Americans are willing to share home basement shelter space with friends and/or strangers in an emergency. Similarly, Americans are willing to be sheltered in the homes of others. Field tests resulted in the development of methods and techniques for use in conducting crisis period and non-crisis period home sharing campaigns. Home basement shelter studies, together with research concerned with improvised protection, has resulted in a significant increase in the Nation's shelter resource.

*Damage Estimation and Operations Analysis.*—Data bases, damage reporting systems, and nuclear effects models incorporated in the National Military Command Systems Support Center (NMCSSC) Single Integrated Damage Assessment Capability (SIDAC), the General Services Administration READY System, and the DCPA Detail Assessment of Hazards (DASH) of Nuclear Attack System were investigated during the fiscal year, to determine their usefulness in the development of a DCPA

Regional damage assessment system. As a by-product of this long-term developmental effort, extensive resource data files were created which have direct application in community shelter planning (CSP), crisis relocation planning (CRP), and local damage assessment. A few examples of assistance provided in these areas were:

- Economic resource profiles of critical industries and facilities in Colorado Springs (El Paso County), Colorado.

- Selection and analysis of resource data and facilities by ZIP Code areas for a local damage assessment system for Phoenix (Maricopa County), Arizona.

- Selection of facilities in Sussex County, Delaware, which might be upgraded through expedient means during a crisis to serve as fallout shelters for evacuees from Wilmington (New Castle County), Delaware.

- Population, labor force, and economic resource data were developed for Oklahoma City, Oklahoma. Summaries of economic resources and listings of facilities were provided for each Census Minor Civil Division (MCD) in each of the counties comprising the Oklahoma Standard Metropolitan Statistical Area. Population and labor force data by occupation (carpenters, electricians, nurses, doctors, etc.) and by Standard Industrial Classification Code were also provided for each census tract and MCD.

- Listings of construction firms in California, Oregon, and Washington which might have capability to assist in construction of expedient shelters in these areas.

*Systems Evaluation.*—Fiscal year progress in Systems Evaluation Research included:

- A research model, Evaluating the Vulnerability of National Systems (EVUNS), used for strategic studies was greatly improved to offer the user greater speed in operation and more versatility in shelter options. The Accelerated Development of the Risk Area Evacuation Model (ADAGIO) was also improved to reduce computational time, and to provide users with more options in allocation of people evacuated from risk areas. An ADAGIO user's manual was published, making the program available for potential users.

- The Civil Preparedness Planning, Exercise, and Evaluation Model for Local Systems (TELOS) was modified for use by computer terminals and smaller calculators.

- Studies of unclassified Soviet literature and public speeches reveal that the Soviet Union has expended over a period of years a very substantial

effort in the civil defense field. Most significant is increased Soviet civil defense training and education for a higher level of operational readiness; and renewed emphasis has been placed on hardened shelter construction to protect essential workers.

- Resource vulnerability research produced improved techniques for use by civil defense planners in predicting and evaluating problems that Crisis Relocation Planning would impose on national and regional economic systems.

- Requests for resource systems vulnerability research reports increased during the fiscal year. The requests were from organizations concerned with the energy crisis, industrial structure security, and from the U.S. Congress as well as foreign governments. DoD Office of Industrial Security included the petroleum and natural gas reports as source documents for use by field inspectors and security trainees. The Naval Coastal Systems Laboratory, National Science Foundation, Defense Supply Agency, and the Office of Industry Security, also showed increased interest in this research.

- The Runout Production Evaluation (ROPE) computer program, which models the U.S. industrial economy during the first 90 days following a simulated nuclear attack upon the United States, was expanded to a base of 173 economic sectors. The model also includes assessment of production drops caused by labor and material shortages.

- The Emergency Health Care System computer program was adapted for compatibility with the TELOS tactical model. Also, the Manpower Recovery sub-model was readied for new input data to reflect current trauma recovery statistics.

### **Nationally Oriented Tests and Exercises**

***Sub-Objective:* To provide for improving the civil defense emergency capabilities of Federal, State, and local governments by design, preparation, and conduct of nationally oriented tests and exercises.**

Nationally oriented tests and exercises provide a basis for evaluating emergency plans, and the means for their implementation. Tests may involve the examination of current emergency operations plans, organizations, procedures, systems and facilities for adequacy, or to assess personnel capability. An effective test and exercise program insures that emergency operations plans, procedures, and systems are adequate and feasible, and inadequacies in civil defense plans are identified for necessary corrective action.

In carrying out the test and exercise programs, DCPA establishes and maintains working relationships with Federal agencies and the military services at all levels to insure proper coordination. Close liaison is maintained with the exercise staffs of the Office of the Secretary of Defense, the Joint Chiefs of Staff, the Department of the Army, the Unified and Specified Commands, and the Defense Agencies.

DCPA Headquarters' staff members participated in a worldwide command post exercise sponsored by the Joint Chiefs of Staff (JCS) during fiscal year 1975. Members of the staff provided round-the-clock representation for DCPA in the National Military Command Center. Other Headquarters' staff members acted as exercise controllers.

To exercise increased readiness, transattack, and early postattack procedures, at least one general war civil defense command post exercise will be held each year for DCPA Regional emergency staff, all State governments, and selected local governments.

### **State and Local Planning**

***State Sub-Objective:*** To provide for guidance and assistance to each of the States in developing and maintaining plans and procedures for conduct of coordinated operations in case of threatened or actual attack or peacetime emergencies, making use of all forces of or available to State government, and also including coordination and support of local governments' operations.

***Local Sub-Objective:*** To provide for guidance and support to local governments in developing and maintaining plans and procedures for conduct of coordinated operations in case of threatened or actual attack or peacetime emergencies, making use of all forces of or available to local government.

Development of the emergency operating capability of State and local governments and the protection of persons necessary to those operations receive high priority in DCPA guidance and assistance. Under emergency conditions, essential operational information would be needed by decision-makers at Federal, State, and local levels. They must be warned of impending disaster in order to implement their plans. They must be provided information concerning the hazards and actions to take; and they must have the necessary equipment

in operating condition to take necessary actions.

On the basis of doctrine and techniques developed, DCPA provides guidance to State and local governments on civil preparedness projects and programs. Preparedness for disaster provides the insurance needed in event of nuclear attack. All sectors of American life must be involved to achieve a high degree of readiness.

### **On-Site Assistance (OSA)**

***Sub-Objective:*** To provide for the improvement of a community's emergency operational readiness, tailored to that community's specific hazards.

OSA is a top priority activity of the Defense Civil Preparedness Agency. It involves direct on-site (at the locality) Federal and State efforts to assist local governments in improving their emergency operational capability to cope with natural disasters and other peacetime emergencies in addition to nuclear war. On-Site Assistance consists of specific steps to (1) ascertain probable hazards, (2) assess existing local capabilities in terms of DCPA readiness standards, (3) determine deficiencies, and (4) develop an action plan to meet requirements and correct deficiencies identified. An action plan leads to concrete and immediate assistance, in many cases, in the form of surplus and excess property grants and loans, and planning, training, and technical assistance from DCPA.

OSA requires that civil preparedness be viewed as a total preparedness effort. This totality is made up of many parts; some are tangible, such as communications equipment, rescue vehicles, emergency operating centers, and survey of schools to locate the best available protection from tornadoes; flood plain evacuation plans, and development of plans for possible nuclear power plant incidents. Others, such as planning, training, and motivating, are intangible. OSA aims at helping localities tie together their existing assets, both tangible and intangible, into the ability to conduct emergency operations. Thus, On-Site Assistance is basically people-oriented, emphasizing planning, organizing, training, and exercising.

Tangible accomplishments resulting from OSA are impressive, such as revised and improved operations plans; developed or improved Emergency Operating Centers; developed school disaster plans; coordinated disaster emergency action plans with the media; and surplus property such as trucks donated for peacetime emergency use such as firefighting.

OSA ties together all facets of emergency preparedness to develop a community organization capable of saving lives in emergency.

### **PROGRAM STATUS—JUNE 30, 1975**

- 1,043 or 28 percent of the required 3,767 local program areas designated for OSA had been surveyed; 28 percent of the U.S. population is located in these program areas.

- 809 or 21 percent of the required 3,767 local program areas designated for OSA had an adopted action plan; these plans covered 22 percent of the U.S. population.

#### **Crisis Relocation Planning (CRP)**

***Sub-Objective:* To provide for developing contingency plans for temporary relocation of population from higher-risk areas, during periods of intense international crisis, with such plans to be feasible of implementation, acceptable to State and local governments concerned, and credible to the public should the need arise to activate the plans.**

During fiscal year 1975, Crisis Relocation Planning (CRP) effort concentrated on research and development activities concerned with CRP planning. However, CRP pilot project efforts initiated shortly before the close of fiscal year 1974, continued through fiscal year 1975. The pilot projects were conducted—with the concurrence and support of local and State governments concerned—in 9 high-risk areas, each located near an important U.S. military installation. The 9 high-risk area pilot projects, due to be completed during fiscal year 1976, include: Colorado Springs, Colo.; Dover, Del.; Duluth, Minn.; Great Falls, Mont.; Macon, Ga.; Oklahoma City, Okla.; Springfield, Mass.; Tucson, Ariz.; and Utica/Rome, N.Y.

The pilot projects established the feasibility of planning to allocate risk-area population to host areas, including the development of standby public information materials—for publication during a crisis—on “where to go and what to do” should relocation be implemented. Public officials at State and local levels in the pilot areas accepted the need for this kind of contingency planning as an element of full-spectrum preparedness, and several pointed out that it would be far preferable to have a relocation plan and not need it than to need the plan and not have it.

During the last several months of fiscal year 1975, preparations were made to complete the pilot projects during fiscal year 1976. Preparations included attendance by CRP team members from the DCPA Regions at a workshop on planning for crisis relocation operations—with emphasis on movement operations and on providing food, fallout protection, and other essentials to risk-area population in host areas. Draft planners’ guides developed by DCPA research and development projects were discussed. Completion of the CRP pilot projects will provide a basis for revision of the draft CRP planning guides to be used by all State and local CRP planners.

#### **Community Shelter Planning (CSP)**

***Sub-Objective:* To provide for technical guidance and assistance in the developing or updating of community shelter plans, and developing disaster operational plans and procedures for all local jurisdictions.**

In order for the population of the United States to make the best use of the best available shelter in a nuclear attack, it is an aim of DCPA to develop and maintain current Community Shelter Plans for 6,438 local program areas which cover the entire Nation. Planning includes development of Community Shelter Plans which allocate people to shelter, and provide for emergency informational materials (camera ready copy) to inform the public on where to go and what to do in the event of increased international tension or crisis.

Until fiscal year 1973, such planning was based on protection from radioactive fallout. Beginning with fiscal year 1974, protection from direct weapon effects including blast and fire, was added. As direct effects data become available, shelter use plans developed since fiscal year 1965 are revised to include the best available shelter to provide protection against blast as well as fallout protection.

Because CSP plans must be individualized for each community, and require techniques for which local civil preparedness staffs generally are not trained, DCPA contracts with the States to provide advice, guidance, and as necessary, direct assistance in the development of local CSP plans.

Periodic adjustments are made in plans to reflect building construction and demolition, major highway projects, and population shift and growth. In a period of impending attack, the plan details would be communicated to the public through television, radio, and the press.

## PROGRAM STATUS—JUNE 30, 1975

• 4,513 or 70 percent of the local program areas had a Community Shelter Plan completed; these completed plans covered 76 percent of the U.S. population.

### RADIOLOGICAL DEFENSE

#### Federal RADEF Program

**OBJECTIVE: PROVIDE FOR A RELIABLE OPERATIONAL RADIATION DETECTION AND MEASURING EQUIPMENT INVENTORY.**

**Sub-Objective: To provide for the engineering required for the maintenance and improvement of radiological equipment requirements of Federal, State and local RADEF systems including modifications for adapting this equipment for dual-use in peacetime radiological emergency response.**

The DCPA Federal RADEF program includes the engineering, logistics, and other support required by States and localities for maintaining and improving their ability to survive a nuclear attack or peacetime nuclear incident.

The DCPA Radiological Defense Program is supported by a modest engineering effort which consists of inhouse projects and services received under contract with the Energy Research and Development Administration, National Bureau of Standards, U.S. Army Communications Command, and the Army Electronics Command.

DCPA participation in cooperative Interservice programs resulted in (1) the successful development of a radiation resistant insulator for radiological instruments, accomplished in coordination with the U.S. Army Electronics Command, and (2) the refurbishment of Navy dosimeters for the nuclear fleet, accomplished by DCPA RADEF Instrumentation Test Facility and funded by the Department of the Navy.

Another Interservice project initiated during the fiscal year is the development of a low-cost multi-service dosimeter. This project is funded jointly by DCPA and the Naval Electronics Systems Command, with the U.S. Air Force Health Physics Laboratory at Wright-Patterson Air Force Base assisting the DCPA RADEF Instrumentation Test Facility in the development of specialized dosimeter components.

DCPA cooperates in national standardization programs for nuclear instrumentation through par-

ticipation in the American National Standards Institute Committee N-42, for Nuclear Instrumentation. During fiscal year 1975, a DCPA representative directed the development of a proposed new standard providing test specifications for direct reading dosimeters.

Other RADEF system improvement projects provide for the application of fundamental precepts of dual-use, crisis activation and risk orientation. Dual-use of RADEF instruments for peacetime radiological emergencies is a major portion of this effort. It is coordinated with and supports the cooperative interagency programs for emergency response planning for nuclear power plants and peacetime transportation incidents.

#### Procurement of RADEF Equipment

**Sub-Objective: To provide for meeting the operational requirements of all levels of government for radiological equipment for a full spectrum of wartime/peacetime radiological emergencies.**

By fiscal year 1974, the majority of DCPA radiological instruments had been issued to the States. Fiscal year 1975 procurement of RADEF equipment was limited to special electronic components used by State radiological instrument maintenance and calibration facilities in retrofitting CD V-715 Radiological Survey Instruments. During the fiscal year, 10,000 special transistors and 55,000 high-megohm resistor sets were procured for use by DCPA-funded State maintenance and calibration facilities.

#### Warehousing and Distribution of RADEF Equipment

**Sub-Objective: To provide for the receiving, incoming inspection, surveillance, testing, modification, temporary storage, issue and redistribution of all radiological defense items, as well as batteries, repair parts and supplies, which are needed to fulfill operational requirements of all levels of government.**

Radiological defense equipment is not standard commercial "shelf" equipment, so it is procured in advance of an emergency. Approximately 90 percent of the RADEF instruments procured to date have been distributed to the States for deployment at the State and local level to be readily available for use in the event of nuclear attack or peacetime nuclear incident. The remainder are stored in the Federal depot for special purpose issue. During

fiscal year 1975, the Federal RADEF Depot at Kansas City, Missouri, was relocated and consolidated with the National Inventory Control Point at the Defense General Supply Center in Richmond, Va.

A repair parts supply system is maintained through the Federal depot to support the equipment issued to the States. Most of the repair parts are of special design for use in RADEF instruments. They are inspected, tested, and stored in the Federal depot. They are distributed to the States for their use as required.

### **Fallout Forecasting**

**Sub-Objective: To provide for upper wind data for use in predicting areas likely to be affected by fallout and the approximate fallout arrival times.**

Under contract with DCPA, the U.S. National Weather Service continued to disseminate data on upper wind observations throughout the continental United States, Alaska, Hawaii, and Puerto Rico. Approximately 70 National Weather Service observatories routinely take twice-daily observations of direction and speed of upper winds. This raw data is computer-processed into fallout prognoses for 133 locations in the 50 States, Canada, and the Caribbean. The fallout forecast message provides information for use at 12, 18, and 24 hours after the twice-daily observations. The forecast messages are calculated for particles originating at the 100-millibar level (approximately 53,000 ft.) that fall to the ground within a 3-hour period. This information will be used at Emergency Operating Centers to predict geographic areas likely to be affected by radioactive fallout.

### **State and Local RADEF Systems**

**STATE OBJECTIVE: PROVIDE FOR A RELIABLE STATE-WIDE OPERATIONAL RADIATION DETECTION AND MEASURING EQUIPMENT INVENTORY, INCLUDING THE ASSOCIATED PLANNING ESSENTIAL FOR THE EFFECTIVE UTILIZATION OF SUCH EQUIPMENT, AND THE TRAINING OF INDIVIDUALS IN RELATED SKILLS.**

**LOCAL OBJECTIVE: PROVIDE FOR THE EFFECTIVE UTILIZATION OF RADIOLOGICAL DEFENSE EQUIPMENT, AND THE TRAINING OF INDIVIDUALS IN RELATED TECHNICAL SKILLS.**

During fiscal year 1975, DCPA continued to provide for the technical and other support required for the development, implementation, and maintenance of Radiological Defense Systems at the State and local levels of government. DCPA assists in the establishment of State and local RADEF Systems by (1) development of procedures, operational guidance, manpower requirements, and equipment upon which to base State and local plans, (2) engineering development of equipment to meet operational requirements, and planning for the dual-use of RADEF systems for both wartime and peacetime radiological emergency response, (3) procedures for keeping the RADEF plans, guidance, personnel, and equipment in the highest state of readiness, (4) general monitoring of the readiness and reliability of State and local RADEF systems for use in both peacetime and wartime nuclear incidents, and (5) technical administration and surveillance of the procurement of radiological equipment and special equipment components.

### **Systems**

Radiological data are needed to determine the actual arrival of fallout; the areas within shelters which provide the best protection; when it is feasible for selected personnel to leave shelter; and to determine the need for available countermeasures, and when to employ them. They are also needed for the control of radiation exposures of those persons performing survival and other emergency missions. Complete and reliable RADEF systems are required nationwide at State and local levels of government. They include the following:

- An operationally ready monitoring and reporting capability designed to support community emergency plans;
- Trained radiological defense officers for around-the-clock EOC and sub-EOC operations;
- Trained monitors for the operationally ready monitoring and reporting systems;
- Crisis-activated training of additional operational and shelter radiological monitors;
- Trained police, fire, and rescue personnel, including auxiliary forces, available for peacetime as well as wartime nuclear emergency response; and
- Equipment for use by people in shelters to assess exposure to fallout radiation.

State-level radiological monitoring and reporting networks capable of functioning both trans- and postattack in the event of a nuclear war are required. These networks provide Statewide radio-

logical intelligence on radioactive fallout and its effects on humans, animals, crops, and property so that assessments may be made to facilitate recovery operations. State radiological support to local levels of government for emergency response to peacetime as well as wartime radiological incidents is also included.

To provide a capability to detect and measure harmful levels of radiation from fallout from enemy attack as well as from significant peacetime radiological incidents, instruments will be required to measure gross contamination levels, radiation exposure rates, and cumulative radiation exposures. These radiation detection instruments are distributed within the States as operational monitoring sets, shelter monitoring kits, aerial survey monitoring sets, and high-range dosimeters, with associated chargers for postattack radiation control of emergency services personnel. Instruments are also stockpiled within the States at strategic locations, where they will be readily available for distribution during an emergency. The following rationale is used in determining RADEF instrument needs:

1. *Monitoring and Reporting Networks.*—A monitoring and reporting capability is required in each of the 6,438 local program areas which include counties, cities, towns, minor civil divisions and various combinations of these. In rural areas, the maximum monitoring station spacing should not exceed 7 to 10 miles. In more densely populated areas, such as cities and towns, a more dense monitoring network with monitoring station spacing of 2 to 3 miles is required. Fifty-four Statewide monitoring and reporting networks are required; however, these locations should also serve as part of the local system. An estimated 40,000 operational monitoring sets are required for this coverage. One remote sensor radiation detecting instrument is required for each EOC. One aerial survey meter is required for each two EOC's through sharing and joint use of the equipment.

2. *Self-Support Monitoring.*—An estimated 110,000 monitoring sets are required for self-support monitoring during emergency operations of individual units of local government such as fire, police, rescue, etc., and vital facilities such as utilities, and hospitals.

3. *Shelter Monitoring.*—One instrument kit is required for each of the projected 200,000 National Shelter Survey shelters.

4. *Emergency Workers.*—In many localities there will be a postattack requirement for carrying out emergency operations before fallout has decayed

to levels that would permit unrestricted movement outside of shelters. These emergency operations might include: rescue; first aid and medical attention; firefighting; maintenance of law and order; maintenance or restoration of public services, such as power, water, and sewer systems; restoration of transportation and communications; redistribution of resources from areas of surplus to areas of need; decontamination of streets, buildings, and other critical areas; reactivation of essential industry; and other emergency operations. These would have to be carried out on a calculated risk basis, and radiation exposure control techniques would be essential to avoid unnecessary radiation injury to personnel. The application of exposure control techniques requires an operational monitoring capability, and the availability of dosimeters and dosimeter chargers for use by emergency personnel. An estimated 5 million dosimeters are required. This requirement is broken down as follows: 1.1 million dosimeters for State-level emergency services employees; 3.7 million dosimeters for employees of local government and emergency services, and approximately 0.2 million dosimeters for workers associated with Federal agencies. One charger is required for every 25 dosimeters, for a total of 200,000 chargers.

5. *Training.*—One set of training equipment is required for each two program areas through sharing and joint use of the equipment.

6. *Test and Calibration Sets for Maintenance and Calibration Program.*—One set of maintenance and calibration equipment is required for each State for the Radiological Systems Maintenance Program.

7. *Dual-Use Radiological Emergency Response Equipment.*—One set of equipment is required for each program area. Each State requires four sets for use in day-to-day operations and for use in emergency response. Ten sets are required for use around each of the 236 nuclear power facilities built, under construction or planned.

## PROGRAM STATUS—JUNE 30, 1975

• 2,177 RADEF operational monitoring and reporting network sets were issued to the States, and 48,607 sets were issued to local program areas.

• 2,515 RADEF operational sets were issued for State emergency service self-support, and 17,399 sets were issued for local program area emergency service and vital facility self-support during emergency operations.

• 3,254 RADEF shelter kits were issued to the States, and 131,793 were issued to local program areas.

• 139,779 Dosimeters were issued to the States, and 619,907 were issued to local program areas for emergency worker use.

• 10,547 Dosimeter chargers were issued to the States, and 50,920 were issued to local program areas for emergency worker use.

• 217 Aerial monitoring kits were issued to the States, and 383 were issued to local program areas.

• 141 Remote Radiation Monitors were issued to the States, and 2,186 were issued to local program areas.

• 156 Radiation Training Source Sets were issued to the States, and 915 were issued to local program areas.

• 29 or 54 percent of the State-level, and 2,226 or 35 percent of the local program areas had a completed Monitoring and Reporting Network Operationally Ready System; 57 percent of the U.S. population is located in local program areas with such systems.

• 18 or 33 percent of the State-level, and 710 or 11 percent of the local program areas had a completed Monitoring and Reporting Network Crisis Augmented System; 28 percent of the U.S. population is located in local program areas with such systems.

• 20 or 37 percent of the State-level, and 1,346 or 21 percent of the local program areas had a completed Self-Support Activities Operationally Ready System; 46 percent of the U.S. population is located in areas with such systems.

• 15 or 28 percent of the State-level, and 623 or 10 percent of the local program areas had a completed Self-Support Activities Crisis Augmented System; 26 percent of the U.S. population is located in local program areas with such systems.

• 17 or 31 percent of the State-level, and 2,332 or 36 percent of the local program areas had a completed Operationally Ready RADEF Shelter System; 62 percent of the U.S. population is located in local program areas with such systems.

• 11 or 20 percent of the State-level, and 936 or 15 percent of the local program areas had a completed Crisis Augmented RADEF Shelter System; 29 percent of the U.S. population is located in local program areas with such systems.

#### **Plans**

***State Sub-Objective: To provide for State-level plans encompassing radiological***

**monitoring and reporting networks capable of functioning both trans- and post-attack in the event of a nuclear war or in the event of peacetime radiological incident.**

***Local Sub-Objective: To provide for standards, guidance and criteria essential for the development of plans for the effective utilization of radiological defense equipment, and individuals trained in related technical skills.***

Each State and local program area requires an effective RADEF plan in order to maximize survival of people in the event of nuclear war. Plans must be developed and updated, periodically tested through exercises, and continuously improved for effectiveness. These plans include provisions for both nuclear attack and peacetime radiological emergencies, trained personnel, RADEF instrumentation, and operational guidance and procedures.

It is recognized that a plan that is dual-use oriented has a greater potential for being operational in the event of a nuclear attack than one that is only nuclear attack oriented. RADEF plans should include preparedness for peacetime RADEF incidents resulting from transportation accidents, fires, or nuclear facility accidents.

#### **PROGRAM STATUS—JUNE 30, 1975**

• 31 or 57 percent of the 54 State-level program areas, and 2,518 or 39 percent of the 6,438 local program areas had a completed Monitoring and Reporting Network Operationally Ready Plan; 64 percent of the U.S. population is located in local program areas with such plans.

• 21 or 39 percent of the State-level, and 1,199 or 19 percent of the local program areas had a completed Monitoring and Reporting Network Crisis Augmented Plan; 35 percent of the U.S. population is located in local program areas with such plans.

• 20 or 37 percent of the State-level, and 1,238 or 19 percent of the local program areas had a completed Self-Support Activities Operationally Ready Plan; 37 percent of the U.S. population is located in local program areas with such plans.

• 17 or 31 percent of the State-level, and 844 or 13 percent of the local program areas had a completed Self-Support Activities Crisis Augmented Plan; 26 percent of the U.S. population is located in local program areas with such plans.

• 12 or 19 percent of the State-level, and 610 or 9 percent of the local program areas had exercised their RADEF plan during fiscal year 1975; 22 percent of the U.S. population is located in local program areas with plans exercised during the fiscal year.

#### **RADEF Training and Education**

**State Sub-Objective:** To provide for training State Radiological Defense Officers and Instructors to assist local governments to develop and execute a radiological defense program sufficient to handle peacetime nuclear incidents and the effects of a nuclear disaster.

**Local Sub-Objective:** To provide for appropriate training to local civil preparedness radiological defense officers and others responsible for radiological defense.

Radiological instruments require trained personnel to operate them and to interpret the information they provide. Radiological Defense Officer (RDO) training is provided through the DCPA Training and Education Program conducted at the DCPA Staff College, and through the State and Local Civil Preparedness Instructional Program conducted on a contractual basis in 48 States, the District of Columbia, and Puerto Rico.

In addition to completion of the Civil Defense, U.S.A. course which provides an introductory orientation of National Civil Preparedness Programs, RDO's should complete the RADEF I Basic Concepts of Civil Preparedness course, and RADEF II Radiological Defense Officer course. Completion of the RADEF III Instructor Workshop course provides for RADEF instructor capability at the State and local levels.

The HS-3 Home Study Course, Introduction to Radiological Monitoring, followed by an 8-hour lecture-demonstration is the recommended method for training Radiological Monitors. A 16-hour Radiological Monitor course is normally reserved for use at police academies and fire schools. Refresher or update training is conducted for previously trained radiological monitors. Aerial Radiological Monitor training is accomplished through use of Civil Air Patrol resources where feasible.

Peacetime Radiological Emergency Response Training is the responsibility of the State agency having the assignment for peacetime radiation emergency response. However, in many States, DCPA RADEF contract personnel assist responsible agencies in conducting RADEF peacetime

training. This dual-use peacetime/wartime training capability is offered radiological monitors, especially those assigned to emergency services such as police, fire, and rescue. Previously trained personnel are also provided with refresher training.

#### **PROGRAM STATUS—JUNE 30, 1975**

• 137 or 18 percent of the required 745 State or State-Area Radiological Defense Officers were fully trained, and 3,503 or 34 percent of the required 10,238 local program area Radiological Defense Officers were fully trained.

#### **COMMUNICATIONS**

##### **Federal Communications Systems**

**OBJECTIVE:** PROVIDE FOR NECESSARY CIVIL DEFENSE COMMUNICATIONS AND THE DISSEMINATION OF WARNING TO THE CIVILIAN POPULATION OF ENEMY ATTACKS AND PEACETIME DISASTERS.

##### **Broadcast Station Protection Program**

**Sub-Objective:** To provide assurance of continued operational capability of selected broadcast stations to provide the President, and National, State and local officials the means of reaching the public with official emergency information under fallout conditions.

The purpose of the Broadcast Station Protection Program is to provide an emergency broadcast capability under fallout conditions for 600 AM broadcast stations by providing them with a fallout protection factor (PF) of at least 100; an emergency generator; a remote radio link to an associated EOC; and programing equipment.

The Emergency Broadcast System is designed to provide the President and State and local officials with the means for getting emergency information to the public in time of nuclear war. The Federal Communications Commission has organized Operational Area, State, Regional, and National Industry Advisory Committees to develop Emergency Broadcast System plans at each government level. Commercial broadcast stations participating in the Emergency Broadcast System have been authorized by the Federal Communications Commission to continue operations on assigned frequencies and normal power during a grave national crisis or war.

DCPA, in conjunction with the Federal Communications Commission, established the Broadcast

Station Protection Program to improve readiness for selected broadcast stations to operate under emergency conditions. To provide for sustained operations under fallout conditions, the Federal Government—through DCPA—paid the cost for the selected radio stations to provide fallout protection, emergency power generators, radio links to local government Emergency Operating Centers, and emergency programming equipment. The Emergency Operating Center emergency broadcast capability may also be used during natural disasters. During fiscal year 1975, several stations used the equipment furnished under this program to broadcast essential information when power failed during tornadoes and heavy flooding which occurred throughout the country at various times.

A total of 600 AM stations have been included in this program, and 115 of those stations have both AM and FM broadcasting capability. By June 30, 1975, 587 stations had fallout protection completed and had also been provided the required equipment.

#### **Decision Information Distribution System (DIDS)**

***Sub-Objective:* To provide for a rapid means to issue warnings and emergency information nationwide to Federal, State and local governments, selected industry and broadcast stations for dissemination to the public.**

DIDS is a rapid, reliable, low-frequency radio warning system designed to provide more complete and faster warning coverage. DIDS could provide warning information directly from the three National Warning Centers to all levels of government in the continental United States. The first transmission facility located at Edgewood Arsenal, Md., was completed in May 1974. It serves a 10-State area from Virginia to Massachusetts, and was tested successfully during fiscal year 1975. Ten transmission facilities are proposed nationwide. DIDS could form the basis for automatic indoor home warning. Special devices have been developed making use of low-frequency transmissions, which can provide automatic alert and warning information for the public. Acquisition and use of these devices would be voluntary on the part of individual citizens. DIDS is expected to find an important peacetime application for warning of local natural disasters. During fiscal year 1976 approximately 1,000 DIDS receivers will be deployed to selected address receivers located throughout Delaware, Maryland, Virginia, Pennsylvania, and the District

of Columbia to test the operational use of DIDS in local emergencies.

#### **Civil Defense National Teletype System (CDNATS)**

***Sub-Objective:* To provide for teletype communications between DCPA National Headquarters, a relocation site, the eight Federal Regional Centers, the 50 State Emergency Operating Centers, U.S. possessions, the HUD/FDAA and GSA/OP Regional Offices, and selected Canadian Civil Defense locations.**

The Civil Defense National Teletype System (CDNATS) is the primary system used for transmitting civil defense communications between DCPA National Headquarters, a relocation headquarters, the eight DCPA Regional Offices, the 10 Federal Disaster Assistance Administration Offices (FDAA), the 10 General Services Administration, Office of Preparedness (GSA/OP) Offices, the 50 States, Puerto Rico, the Virgin Islands, the District of Columbia, and four locations in Canada. A Subsystem Project Plan for improving the CDNATS was approved during fiscal year 1975. The improved CDNATS will use mini-computers to accept and process messages from all teletype circuits, simultaneously providing automatic message switching between users. The automatic switching feature allows users to send messages to a single address or to a multiple number of addresses within the system.

#### **Civil Defense National Voice System (CDNAVS)**

***Sub-Objective:* To provide for sufficient voice circuits between National Headquarters, relocation sites, the eight Federal Regional Centers, the State Emergency Operating Centers, and the GSA/OP and HUD/FDAA Regional Offices to permit the flexibility, speed, and continuity of service required in civil preparedness day-to-day or emergency operations.**

The Civil Defense National Voice System (CDNAVS) is comprised of both Automatic Voice Network (AUTOVON) and dedicated, leased, full-period circuits. AUTOVON is used between DCPA National Headquarters, a relocation headquarters, and the eight DCPA Regional Offices. Circuit preemption capability has been installed for all eight DCPA Regional Offices. The dedicated circuits provide direct lines between each DCPA Regional Office and its States. Alternate hardened cable routes containing most of the voice

and teletype system circuits are being used for five of the eight Federal Regional Centers.

#### **Civil Defense National Radio System (CDNARS)**

**Sub-Objective:** To provide for emergency radio backup to the Civil Defense National Teletype and Voice Systems between a National Headquarters location, the Federal Regional Centers, State Emergency Operating Centers, and U.S. possessions.

The Civil Defense National Radio System (CDNARS) is a high-frequency radio network used for backup to the teletype (CDNATS) and voice (CDNAVS) systems. Control facilities for the radio system are collocated with the wireline voice and teletype positions to make them readily available during emergencies. The CDNARS is operational in 49 States, the District of Columbia, Puerto Rico, and the Canal Zone—as well as in a DCPA emergency relocation headquarters and the eight DCPA Regional Offices. During the fiscal year, the CDNARS upgrade for the Regions continued with DCPA Regions Three, and Six provided electromagnetic pulse (EMP) protection, and Regions Two, Three, and Six provided with new HF 10 KW transmitters and associated radio receivers. During the fiscal year, approval was obtained for the installation of EMP protection for CDNARS at each State Emergency Operating Center.

#### **State and Local Emergency Communications Systems**

**STATE OBJECTIVE:** PROVIDE FOR A RELIABLE STATE-WIDE EMERGENCY COMMUNICATIONS SYSTEM FOR THE DISSEMINATION AND/OR EXCHANGE OF OPERATIONAL INFORMATION.

**LOCAL OBJECTIVE:** PROVIDE FOR A RELIABLE EMERGENCY COMMUNICATIONS SYSTEM FOR THE DISSEMINATION AND/OR EXCHANGE OF OPERATIONAL INFORMATION.

##### **Plans**

**State Sub-Objective:** To provide standards, guidance and criteria for the development of a plan encompassing a reliable statewide emergency communications system to be used for dissemination and/or exchange of operational information.

**Local Sub-Objective:** To provide standards, guidance and criteria for the development of a plan encompassing a reliable local emergency communications system to be used for dissemination and/or exchange of operational information.

State and local emergency communications systems are those dedicated telephone and radio systems used by State and local government agencies having the responsibility for coordinating all emergency operations. State and local communications plans and Radio Amateur Civil Emergency Services (RACES) plans are required before Federal matching funds can be obtained to support communications projects. Communications plans usually include provision for communications facilities and equipment adequate to permit key local executives to direct and control emergency operations. This includes equipment in or linked to an EOC, permitting communications with such local operating forces as police, fire, and public works; and with hospitals, ambulance dispatch points, news media, shelters, other local EOC's, and the State-Area or State EOC. RACES is an important asset to State and local emergency communications operations. RACES enables amateur radio operators to provide emergency communications during national, State, and local disasters.

##### **Systems**

The operability of State and local communications systems is assured by providing DCPA financial assistance on a 50/50 matching funds basis for communications equipment, and for the recurring operation and maintenance costs of equipment necessary for a reliable communications system in each DCPA program area. Since 1952, DCPA has assisted States and their political subdivisions in building extensive communications systems which are essential to civil preparedness operations in all kinds of disasters. Such equipment must be maintained and protected by the States and their political subdivisions to assure ready availability for civil preparedness purposes.

Communications systems are of major benefit to localities having a high incidence of natural disaster. The operability of such systems is guaranteed by Federal grants which insure adequate maintenance and other standby costs. Detailed communications planning studies are also an integral part of the development of an operational capability. Grants are made to local governments for training courses and test exercises to maintain the highest

degree of readiness in the event of disaster. Federal assistance programs related to communications activities include the following:

- State and Local Systems Maintenance and Services Program provides for Federal contributions on a 50/50 matching funds basis for recurring costs related to communications activities—including costs for lease of communications circuits, rental of communications equipment, operating costs such as electric power, fuel, telephone service, repair and maintenance of communications equipment, and the cost of preparation of local emergency communications plans.

- Surplus Property Program provides for the donation of surplus property to State and local governments for use in EOC's, mobile communications vans, and for other communications purposes. Radios, receivers/transmitters, recorders, and generators are among items donated as they become available.

- Contributions Project Loan Program provides for use by State and local governments of DoD or GSA excess property in EOC's or mobile communications vans. Items loaned include radios, receiver/transmitters, recorders, and generators.

- State and Local Supporting Systems Equipment Program provides for DCPA Federal contributions on a 50/50 matching funds basis for communications equipment—including costs for purchase and installation of radio and ancillary equipment, interconnection equipment, emergency power facilities, remote pickup units, radio equipment installed in vehicles, and portable radio equipment, and fixed wire communications equipment.

Approximately \$1.6 million was obligated during fiscal year 1975 for systems maintenance and services. Of this amount, approximately 34 percent was used for communications recurring and maintenance charges.

## PROGRAM STATUS—JUNE 30, 1975

- 40 or 74 percent of the 54 State-level, and 2,693 or 42 percent of the 6,438 local program area Communications Plans were completed; 68 percent of the U.S. population is covered by completed Communications Plans.

- 42 or 78 percent of the State-level, and 2,195 or 34 percent of the local program areas had Radio Communications Capability established between their EOC and Primary Local Operating Forces.

- 41 or 76 percent of the State-level, and 3,319 or 52 percent of the local program areas had Wire-

line Communications Capability established between their EOC and Primary Local Operating Forces.

- 35 or 65 percent of the State-level, and 876 or 14 percent of the local program areas had Radio Communications Capability established between their EOC and Other Forces.

- 39 or 72 percent of the State-level, and 3,205 or 50 percent of the local program areas had Wireline Communications Capability established between their EOC and Other Forces.

- 32 or 59 percent of the State-level, and 577 or 9 percent of the local program areas had Radio Communications Capability established between their EOC and the Broadcast Media.

- 36 or 67 percent of the State-level, and 3,181 or 49 percent of the local program areas had Wireline Communications Capability established between their EOC and the Broadcast Media.

- 297 or 5 percent of the local program areas had Radio Communications Capability established between their EOC and Community Shelters.

- 2,168 or 34 percent of the local program areas had Wireline Communications Capability established between their EOC and Community Shelters.

- 1,506 or 23 percent of the local program areas had Radio Communications Capability established between their EOC and their State or State-Area EOC's.

- 3,132 or 49 percent of the local program areas had Wireline Communications Capability established between their EOC and their State or State-Area EOC's.

- 5 or 9 percent of the State-level, and 36 or 1 percent of the local program areas had an EMP-protected Radio Base Station.

- 39 or 72 percent of the State-level, and 1,819 or 28 percent of the local program areas had established a Central Communications System at their EOC.

- 44 or 81 percent of the State-level, and 1,705 or 26 percent of the local program areas had Emergency Power available.

- 32 or 59 percent of the State-level, and 2,079 or 32 percent of the local program areas had exercised their Communications Systems during fiscal year 1975.

- 30 or 56 percent of the State-level, and 1,743 or 27 percent of the local program areas had completed a Radio Amateur Civil Emergency Services (RACES) Plan.

## **WARNING**

### **Federal Warning**

**OBJECTIVE: PROVIDE FOR NECESSARY CIVIL DEFENSE COMMUNICATIONS, AND THE DISSEMINATION OF WARNING TO THE CIVILIAN POPULATION OF ENEMY ATTACKS AND PEACE-TIME DISASTERS.**

Federal Warning Systems are designed to pass warning to strategic points from which State and local governments warn the public. The Civil Defense Warning System (CDWS) operates throughout the continental United States, including Alaska, and interconnects Federal, State, and local warning systems in a single warning network. Separate warning systems serve Hawaii, Guam, Puerto Rico, and the Virgin Islands.

#### **National Warning System (NAWAS)**

**Sub-Objective: To provide for the National Warning System to disseminate attack warning and disaster information to all levels of governments and selected Federal agencies.**

The Federal portion of the CDWS is the National Warning System (NAWAS). Almost instantaneous attack warning information can be disseminated over NAWAS to State and local warning points from any one of the three National Warning Centers continuously manned and operated for DCPA by U.S. Army Communications Command-CONUS (USACC-CONUS). The primary National Warning Center is in Cheyenne Mountain, Colorado Springs, Colo.; and the other National Warning Centers are located at Denton, Tex., and Olney, Md. The system includes 331 warning points at Federal installations throughout the United States; and 939 State and local warning points, (including 665 county seats) for a total of 1,270 as of the end of the fiscal year.

Severe weather information originated within a given State is disseminated by National Weather Service officials within the same State and across the borders of adjacent States by NAWAS. DCPA has placed NAWAS installations at 218 National Weather Service facilities. For several years, DCPA has assisted the National Weather Service of the National Oceanic and Atmospheric Administration (NOAA) in the dissemination of severe weather information. In June 1973, DCPA entered into a

planning, coordination and program effort involving all applicable agency activities.

"Dual capability," the watchword for civil preparedness, means that DCPA systems built over the past decade to protect people in the event of nuclear attack are being used whenever possible for peacetime emergencies. No matter what the emergency, dual-use systems can add to the local capability to save lives and prevent needless suffering when disaster strikes. The National Warning System (NAWAS) is particularly adaptable as a dual-use system.

The use of civil defense communications systems for natural disaster warning is authorized by Executive Order 11795, December 31, 1970. Further dual-use will be sought wherever possible.

#### **Washington Area Warning System (WAWAS)**

**Sub-Objective: To provide a warning system for dissemination of attack warning and disaster information to the governments of the Washington Metropolitan Area, to Federal agencies and institutions, and to the population.**

The National Security Council determined in 1956 that there should be a Federal Warning System for the Washington, D.C. area, and DCPA was made responsible for the installation and operation of the Washington Area Warning System. WAWAS is composed of (a) an outdoor warning net consisting of 300 sirens installed and in operation in the several local jurisdictions designated as included in the Washington metropolitan area; (b) a wireline area communications circuit with telephones and radio backup capability at 54 locations serving all local civil defense headquarters, specific military headquarters, and certain other key Federal Government locations; and (c) a Bell and Lights Circuit with termination at 120 locations serving government installations providing indoor warning to these points. DCPA provides supervision and coordinates the WAWAS program with U.S. Army Communications Command-CONUS. WAWAS operation, maintenance, modification, and improvement are performed by U.S. Army Communications Command-CONUS as part of Department of the Army civil defense support.

#### **State and Local Warning Systems**

**STATE OBJECTIVE: PROVIDE FOR A SUITABLE STATE-WIDE WARNING SYSTEM FOR ALERTING THE CIVILIAN**

## **POPULATION OF ENEMY ATTACKS AND PEACETIME DISASTERS.**

**LOCAL OBJECTIVE: PROVIDE FOR A SUITABLE WARNING SYSTEM FOR ALERTING THE CIVILIAN POPULATION OF ENEMY ATTACKS AND PEACETIME DISASTERS.**

### **Plans**

**State Sub-Objective: To provide standards, guidance and criteria for the development of a plan encompassing a reliable statewide warning system to relay alerts and warning information to all localities and to the public.**

**Local Sub-Objective: To provide standards, guidance and criteria for the development of plans encompassing a reliable local warning system to relay alerts and warning information to the public.**

DCPA provides financial and technical assistance to State and local governments to assist them in developing and establishing warning systems for disseminating warning and other emergency information from 939 State and local warning points. A major DCPA aim is for each State and local government to have a reliable and workable warning plan. Guidance and assistance is provided by DCPA in the development of State and local plans. This guidance provides for the most effective use of existing warning resources and recommends acquiring additional warning equipment only when justified to meet a requirement. Warning plans cover procedures for receiving and disseminating warning notices of impending enemy attack, and receiving weather warnings from the National Weather Service. Warning plans also include planning arrangements with radio and television stations for getting warning information to the public.

### **Systems**

State and local governments use a variety of facilities to disseminate warning and other emergency information. Telephone and radio are widely used by the States for alerting local personnel and officials. Some of the States use tone-activated radio, teletype, or special systems such as Bell and Lights. County sheriff radio nets are often linked to State networks and assist in spreading warning throughout the counties. Local warning systems to alert the public include both indoor and outdoor warning devices. Sirens are preferred for outdoor warning—although horns, whistles, and voice-sound systems

also are used. Indoor warning devices include telephone, radio, and various commercial communications facilities such as public-use address systems and circuits for transmitting background music to public places. Community Antenna Television (CATV) is being used increasingly for dissemination of natural disaster warnings to the public. Most State and local warning points are located within existing governmental agencies such as law-enforcement or fire department headquarters, which are continuously manned. This assures 24-hour warning coverage for the areas served by each warning point.

## **PROGRAM STATUS—JUNE 30, 1975**

• 42 or 78 percent of the 54 State-level, and 2,769 or 43 percent of the 6,438 local program area Warning System Plans were completed; 65 percent of the U.S. population is covered by completed Warning Plans.

• 38 or 70 percent of the State-level, and 3,075 or 48 percent of the local program areas had Warning Receiving Capability of approximately 2 minutes after time of announcement by the National Warning Center; 73 percent of the U.S. population is covered by this warning receiving capability.

• 24 or 44 percent of the State-level, and 3,087 or 48 percent of the local program areas had exercised their warning systems during fiscal year 1975; 65 percent of the U.S. population is covered by these warning systems.

• 29 or 54 percent of the State-level, and 2,067 or 32 percent of the local program areas had concluded warning agreements with commercial radio, television, or community antenna television (CATV); 57 percent of the U.S. population is covered by these warning agreements.

• 321 or 5 percent of the local program areas had their entire population covered by outdoor warning capability.

• 3,833 or 60 percent of the local program areas had capability for receiving National Weather Service warnings; 77 percent of the U.S. population is covered by this capability.

## **SHELTER**

**OBJECTIVE: PROVIDE FOR PUBLIC SHELTER SPACE TO AFFORD PROTECTION FROM THE EFFECTS OF NUCLEAR WEAPONS.**

Studies show that a nationwide balanced risk shelter system could save tens of millions of lives in the event of a heavy nuclear attack. In working

toward this goal, DCPA is building and sustaining a risk-oriented shelter program for the Nation. This program is designed to provide maximum DCPA assistance to State and local government efforts to shelter their citizens from the hazards which could result from nuclear attack.

During fiscal year 1975, DCPA made significant progress toward meeting the objective of providing the entire population of the United States with shelter. Methods used to attain the objective are described in the following paragraphs.

### **The National Shelter Survey (NSS)**

***Sub-Objective:* To provide for the identification and evaluation of the best available shelter space in existing structures to accommodate the population of the U.S. for protection against the effects of nuclear weapons in the event of an attack.**

During fiscal year 1975, the expanded shelter survey continued to locate shelter against the direct effects of nuclear weapons in designated risk areas throughout the country. Approximately 31,000 facilities were surveyed in 117 counties to determine the relative blast and fire protection offered by large buildings and other facilities such as subways, mines, caves, or tunnels. Emphasis was on resurveying buildings previously surveyed for fallout only, and adding new buildings constructed since previous surveys.

A new survey concept, implemented during fiscal year 1975, is the host area shelter survey which supports the Crisis Relocation Planning by locating congregate care facilities and upgradable fallout shelter in designated host areas. These are usually buildings that may not meet public shelter standards, but which could serve as congregate care housing for high-risk area evacuees. Additionally, the buildings are analyzed for potential fallout shelter upgrading. This includes expedient shelter improvement by placing earth on roofs and against exposed lower-floor walls. Through such actions, implemented during a period of crisis, the fallout protection of selected buildings could be improved to meet minimum public fallout shelter standards. Nine prototype host areas were surveyed, and approximately 24,000 facilities were located during fiscal year 1975.

Both the expanded shelter survey and the host area survey were conducted by Corps of Engineer and Naval Facilities Engineering Command personnel, augmented during the summer by teams

of specially trained engineering and architectural students. There were 320 students recruited from more than 100 U.S. universities for the summer survey program. In all areas, the survey effort was closely coordinated with State and local civil defense directors for the jurisdictions involved.

### **PROGRAM STATUS—JUNE 30, 1975**

- 232,574 facilities with 230 million public fallout shelter spaces were included in the NSS inventory.
- 57,063 facilities with 23 million belowground direct effects spaces were included in the NSS inventory total.
- 160.5 million NSS spaces were allocated for use in Community Shelter Plans.

### **Professional Development of Architects and Engineers**

***Sub-Objective:* To provide for sound professional competence within the architectural and engineering professions to plan for and design effective shelters for protection against the direct effects of nuclear weapons (blast, thermal, and fallout radiation) with consideration being given to natural disaster effects (tornadoes, earthquakes, fire, etc.).**

In recognition of the greater need for preparedness to meet the full spectrum of disasters—natural as well as nuclear—DCPA continued a broader Architect and Engineer professional development program initiated during fiscal year 1974. The professional development course for architects and engineers titled "Multiprotection Design" was conducted in 41 metropolitan areas during the year. Applications from 3,378 architects and engineers were received for enrollment in these courses, but due to limited funds, classroom space, and instructional capabilities, only 1,863 applications were accepted. These courses emphasized slanting techniques to be used during the design phase in new construction or in the remodeling of existing structures at little or no additional cost to the building owner. Application of these techniques could result in lifesaving shelters to protect people from the effects of natural disasters such as hurricanes, earthquakes, and tornadoes, as well as from the effects of nuclear attack. Additionally, a two-week session of the Fallout Shelter Analysis course was conducted at the DCPA Staff College in Battle Creek, Michigan.

DCPA-sponsored courses in Fallout Shelter Survey Techniques were again offered during the fiscal year for undergraduate students of architecture or engineering. The course prepared the students for summer employment in the Shelter Survey Program. There were 1,339 students who took the Shelter Survey Techniques course on their own time during the 1974-75 school year.

The professional development courses are administered for DCPA, under contract, by the National Society of Professional Engineers. Exceptions are those courses conducted at the DCPA Staff College in Battle Creek, Michigan, for practicing architects and engineers, and those conducted for credit at the universities and colleges for undergraduate students of architecture and engineering.

### Technical Information

***Sub-Objective: To provide for professional competence within the architectural and engineering professions by developing and disseminating technical information for planning and designing effective shelters for protection against the direct effects of nuclear weapons (blast, thermal and fallout radiation), with consideration being given to natural disaster effects (tornadoes, earthquakes, fire, etc.).***

New technical reports were developed and disseminated by DCPA during the fiscal year, to provide architects, engineers, and others with technical information on environmental hazards and natural disasters as well as the effects of nuclear weapons. New buildings providing protection against such hazards as noise pollution, floods, tornadoes, hurricanes, as well as fallout radiation, and electromagnetic pulse (EMP) were illustrated and described in various technical publications to show architects and their consulting engineers how protection against these hazards can be accomplished at little cost. These technical publications include: *High Risk Areas, Wind-Resistant Design Concepts for Residences*, and design case studies on *Law Enforcement Center/Clinton, Iowa*, and the *North Main Street Elementary School/Pleasantville, New Jersey*. In addition, textbooks and course material were developed for use in the Multiprotection Design and Shelter Survey Technician Courses.

DCPA continued to encourage State and local school officials to incorporate fallout shelter in new schools and to plan for total protection against environmental hazards, both natural and manmade,

since protection provided against any one hazard often will provide protection from others. Publications distributed to various school officials included: *Schools in Kansas With Tornado Protection, Protected Educational Facilities in Found Space*, and *Environmental Hazards and Systems Schools*.

### Engineering Support Services

***Sub-Objective: To provide an in-house capability for technical guidance, assistance and supervision of the field forces to conduct the National Shelter Survey program and to provide technical guidance and assistance to architects involved in the design of new buildings on ways to achieve protection from nuclear disasters.***

Initiated during fiscal year 1968, the Direct Mail Shelter Development System (DMSDS) involved use of a systematic procedure for contacting owners and architects of selected new buildings, to offer technical assistance for incorporating protection from natural and manmade hazards in the design of new projects. The DMSDS used direct-mail techniques, combined with personal contact by State or local government authorities and Advisory Service Centers to assist the project designers. During fiscal year 1975, DMSDS was phased down gradually, and was terminated on June 30, 1975.

*Federal Buildings Program.*—Executive Order 11490 assigns emergency preparedness functions to Federal agencies, and requires that all Federal agencies engaged in building construction, plan, design, and construct the buildings to protect the public against the hazards that could result from nuclear attack upon the United States. Federal agencies, where empowered to extend Federal financial assistance, are to encourage recipients to use standards for planning, design, and construction to maximize protection of the public.

DCPA, acting for DoD, reviews proposed annual design and construction programs for Federal buildings. The purpose of this review is to insure that the budget estimates include provision for public fallout shelter, as required by Executive Order 11490. There are approximately 25 Federal agencies involved in annual construction programs. Federal agency construction programs contributing substantial numbers of fallout shelter spaces are the General Services Administration, Veterans Administration, Department of Transportation, and the various Military Services. By fiscal yearend, public shelters in Federal (non-military) buildings ac-

counted for more than 10 million spaces of the national inventory.

Recognizing the need for the best available shelter in high-risk areas, coordination with GSA was initiated during the fiscal year, in an effort to obtain low-level blast protection in the basements of newly designed Federal buildings. A guidance booklet illustrating the slanting techniques involved was developed and furnished to GSA for design guidance.

### **Home Fallout Protection Survey (HFPS)**

***Sub-Objective:* To provide for the development and maintenance of a system for informing all U.S. householders of the fallout protection inherent in their homes, together with information as to how the inherent protection can be enhanced during a crisis.**

The Home Fallout Protection Survey (HFPS) assists residents of one-, two-, and three-family homes to determine fallout radiation protection afforded by their homes; and, if the indicated protection is inadequate, what can be done to upgrade it. During fiscal years 1966-1969, the Bureau of the Census sent questionnaires to occupants of one-, two-, and three-family structures in 26 States, the District of Columbia, and two New York counties. Based upon housing data received in the survey, the fallout protection was calculated and the occupants were advised of the results. Also, they were provided information about fallout and means to achieve permanent or expedient radiation protection. Summary data were provided to local governments. In fiscal year 1972, the HFPS program was converted into a self-contained questionnaire/analysis system which permits the individual householder to make his own fallout radiation protection evaluation. This crisis-activated system is adaptable for printing in newspapers and/or showing on television during an international crisis so that home occupants can, by making a few simple measurements and calculations, determine the fallout protection afforded by their homes. Emergency information will be provided also on how to improve quickly the home protection if inadequate.

### **PROGRAM STATUS—JUNE 30, 1975**

• 27.3 million Home Basement shelter spaces were allocated for use in Community Shelter Plans.

### **Marking and Stocking Shelters**

***Sub-Objective:* To provide for the identification of public fallout shelters for citizens in the event of an attack, and to provide food, water, medical supplies and other provisions necessary to sustain life in the shelter during its occupancy.**

DCPA develops and disseminates guidance to State and local governments for their use in developing plans for identifying public shelter space in emergencies. State and local governments develop and maintain plans for marking these shelter facilities during a crisis period. Although signs were posted on many public fallout shelters, some shelters are unidentified. Many building owners, while consenting to the use of their buildings in an emergency, for esthetic reasons prefer not to have them marked during a normal period. Consequently, only very limited permanent-type marking has been accomplished in the last few years. Many of the permanent-type signs previously placed on facilities have been removed as a result of change in building ownership, deterioration, or vandalism.

Shelter facilities could be occupied for only a minimal time unless they have basic life-sustaining supplies such as food, water, and minor medical and sanitation supplies. DCPA develops and disseminates guidance to State and local governments for use in developing emergency stocking plans, which call for utilizing local resources.

### **PROGRAM STATUS—JUNE 30, 1975**

- 1,527 local program areas had shelter marking plans completed.
- 804 local program areas had shelter stocking plans completed.

### **Shelter Manager Training**

***Sub-Objective:* To provide shelter manager instruction for those persons assigned shelter manager responsibilities in the event of nuclear attack.**

The large numbers and geographical dispersal of shelter managers requires training tailored to individual home study. DCPA provides shelter manager training through a home study course—"Civil Defense, USA." "Civil Defense, USA" is a programmed Home Study Course which provides potential shelter managers with a basic knowledge of civil preparedness programs.

## PROGRAM STATUS—JUNE 30, 1975

- 37,307 persons had completed the "Civil Defense, USA" home study course.

## EMERGENCY PUBLIC INFORMATION

**OBJECTIVE: PROVIDE FOR A CAPABILITY FOR AN EMERGENCY PUBLIC INFORMATION SYSTEM FOR USE DURING AN EMERGENCY.**

### State and Local Emergency Information Systems

All States, Territories, and local program areas should develop plans for getting emergency information to the public promptly, by establishing procedures for a centralized source of official emergency guidance and instructions for the public. Each plan should provide for the preparation of guidance materials for use by the public in time of emergency, and provide for an agreement with the media—newspaper, radio, and television—which determines the means for dissemination of the guidance materials. For the nuclear attack threat, the plan should include provisions for crisis use of the DCPA citizen's handbook "In Time of Emergency," as well as dissemination of local Community Shelter Planning instructions for the public. It is a responsibility of DCPA to assist the States, Territories, and local program areas in this information and education effort which is aimed at saving lives and minimizing property damage. This assistance is provided through the following Federal Assistance Programs:

1. *State and Local Systems Maintenance and Services* provides for Federal contributions on a 50/50 matching funds basis to State and local civil defense organizations in support of public information programs which include contractual services for public information and education campaigns, materials to be used for TV or radio broadcasting, motion pictures, printed publications, exhibits, and displays.

2. *Surplus Property Program* provides assistance by the donation of a wide variety of items such as communications equipment, radio receivers/transmitters, and generators to be used for emergency public information.

3. *State and Local Supporting Systems Equipment* provides Federal contributions on a 50/50 matching funds basis for emergency public information equipment such as cameras, photographic

equipment, and printing and reproduction equipment.

4. *Contributions Project Loan Program* provides DoD or GSA excess property for use by State and local governments. Items loaned include teletype-writers, receivers/transmitters, recorders, transceivers, antenna towers, and generators.

## PROGRAM STATUS—JUNE 30, 1975

- 24 or 44 percent of the State-level program areas, and 1,743 or 27 percent of the local program areas had a completed Emergency Information Plan; 54 percent of the U.S. population is located in local program areas with such plans.

- 23 or 43 percent of the State-level, and 2,315 or 36 percent of the local program areas had Emergency Public Information Guidance Materials prepared; 61 percent of the U.S. population is located in local program areas with such materials prepared.

- 31 or 57 percent of the State-level, and 2,731 or 42 percent of the local program areas had determined the means for dissemination of guidance materials; 66 percent of the U.S. population is located in local program areas where such determinations have been made.

- 24 or 44 percent of the State-level, and 2,340 or 36 percent of the local program areas had an agreement with the news media for dissemination of guidance materials; 56 percent of the U.S. population is located in local program areas having such agreements.

## OTHER LOCAL EMERGENCY SERVICES

**OBJECTIVE: PROVIDE FOR SUITABLE SYSTEMS FOR PROVISION OF ESSENTIAL SERVICES IN AN EMERGENCY FOR LAW AND ORDER, FIRE, RESCUE, EMERGENCY MEDICAL, PUBLIC WORKS ENGINEERING AND EMERGENCY WELFARE.**

Civil preparedness at the State and local government levels depends on all existing emergency services. Local emergency readiness is the ability to conduct coordinated operations in extraordinary emergencies, making maximum use of existing governmental forces and resources and of non-governmental groups such as doctors, hospitals, and the news media. Emphasis is on tying together and making operationally effective all local capabilities including facilities, equipment, and trained manpower, in order to execute emergency operations

plans in time of emergency. DCPA guidance and coordination is therefore necessary in the areas of law and order, fire, rescue, emergency medical, emergency welfare, and public works (including public utilities). All of these services must be included in local civil preparedness plans in order that effective and efficient emergency operations coordination can be effected in time of major emergency, and orderly restoration of community life can be achieved at the earliest possible time.

In accomplishing this objective, DCPA offers technical and financial assistance to State and local governments. For example, through the DCPA State and Local Systems Maintenance and Services program, DCPA provides for Federal contributions on a 50/50 matching funds basis to State and local civil defense organizations for maintenance of local emergency services systems covering law and order, rescue, emergency medical, and welfare equipment used by State and local emergency services during an emergency.

Through the DCPA Surplus Property Program, DCPA provides assistance by the donation of a wide variety of items such as trucks, ambulances, buses, tractors, generators, construction equipment, and fire trucks. This program encourages State and local budgetary savings through surplus utilization rather than purchase of new equipment with Federal matching funds.

Utilization of DoD or GSA excess property by local governments for use in emergency services programs is provided by the DCPA Contributions Project Loan Program. Items loaned include aircraft, boats, ambulances, fire trucks, trucks, snow plows, and generators. The loan program provides for a variety of high-quality items that would not be normally available to local governments.

The State and Local Supporting Systems Equipment Program provides DCPA Federal contributions on a 50/50 matching funds basis for purchase of equipment needed for emergency services systems.

### **PROGRAM STATUS—JUNE 30, 1975**

- 3,114 or 48 percent of 6,438 local program areas had a police annex/standing operating procedure (SOP) to the basic emergency operations plan completed; 71 percent of the U.S. population is located in local program areas with such plans.

- 2,582 or 40 percent of the local program areas had all the required police personnel assigned and trained; 60 percent of the U.S. population is located in these local program areas.

- 3,085 or 48 percent of the local program areas had a fire annex/standing emergency operating procedure to the basic emergency operations plan completed; 71 percent of the U.S. population is located in these local program areas.

- 2,619 or 41 percent of the local program areas had all the required fire emergency personnel assigned and trained; 62 percent of the U.S. population is located in these local program areas.

- 2,754 or 43 percent of the local program areas had a rescue emergency annex/standing operating procedure to the basic emergency operations plan completed; 67 percent of the U.S. population is located in these local program areas.

- 2,373 or 37 percent of the local program areas had all the required rescue emergency personnel assigned and trained; 59 percent of the U.S. population is located in these local program areas.

- 2,781 or 43 percent of the local program areas had a public works emergency annex/standing operating procedure to the basic emergency operations plan completed; 67 percent of the U.S. population is located in these local program areas.

- 2,079 or 32 percent of the local program areas had all the required public works emergency personnel assigned and trained; 55 percent of the U.S. population is located in these local program areas.

- 2,629 or 41 percent of the local program areas had a medical emergency annex/standing operating procedure to the basic emergency operations plan completed; 66 percent of the U.S. population is located in these local program areas.

- 2,142 or 33 percent of the local program areas had all the required medical emergency personnel assigned and trained; 56 percent of the U.S. population is located in these local program areas.

- 2,492 or 39 percent of the local program areas had a welfare emergency annex/standing operating procedure to the basic emergency operations plan completed; 63 percent of the U.S. population is located in these local program areas.

- 1,825 or 28 percent of the local program areas had all the required welfare emergency personnel assigned and trained; 50 percent of the U.S. population is located in these local program areas.

- 350 or 5 percent of the local program areas had established brevity code number 911 as the accepted emergency telephone number; 18 percent of the U.S. population is located in these local program areas.

- 2,638 or 41 percent of the local program areas

had a resource inventory completed; 59 percent of the U.S. population is located in these local program areas.

- 1,624 or 25 percent of the local program areas had agreements with all volunteer services completed; 45 percent of the U.S. population is located in these local program areas.

## **CITIZEN TRAINING**

**OBJECTIVE: PROVIDE FOR THE NECESSARY INDIVIDUAL TRAINING AND EDUCATION WHICH WILL RESULT IN APPROPRIATE PUBLIC RESPONSE PRIOR TO, DURING, AND AFTER AN ATTACK OR PEACETIME DISASTER.**

The Civil Preparedness Education Program (CPE) provides Personal and Family Survival (PFS) education by (1) establishing civil preparedness instruction as an integral part of the Nation's school system; and (2) conducting workshops and training sessions for teachers, school administrators, and other school officials who will assist in implementing the Civil Preparedness Education Program.

The core of instruction in the CPE program is based upon "Your Chance To Live" materials which consist of a Student Manual and accompanying Teacher's Manual that provide instruction on 10 disaster possibilities and how to prepare for them. The textbook material is supplemented with optional films and filmstrip sets. These materials are designed primarily for the junior high school student—grades 7 through 9—but are being used also in other grades.

In addition, the publications "Government in Emergency" and "In Time of Emergency" may be used to supplement CPE instruction. There are also two games, "Environmental Realities" and "Games That Teach," which are suitable for instructional use in grades 1 through 12.

Actual instruction of CPE-related objectives, and use of the instructional materials, is accomplished by teachers in school systems throughout the Nation. The teacher workshops and training sessions are conducted by the CPE Coordinators, in order to encourage and facilitate implementation of the CPE objectives within the various school systems. The CPE program is carried on in various States by means of a contract with either the (1) State Department of Education, (2) State Board of Education, (3) State Civil Defense Office, or (4) a State University.

The status of CPE instruction in schools varies from State to State. In Alabama, Mississippi, and Oregon, such instruction is required by law. Some other States, however, simply encourage the use of CPE instruction within the school systems. The number of hours of instruction varies with the school system. Teachers are encouraged to devote at least 8 hours to the program, and this amount of time is usually the minimal amount required in order to use the "Your Chance To Live" student materials.

## **PROGRAM STATUS—JUNE 30, 1975**

- 2,013,086 students received CPE instruction during fiscal year 1975.

- 13,175 teachers were trained in Personal and Family Survival Workshops during the fiscal year.

# OPERATIONAL SUPPORT



# OPERATIONAL SUPPORT

## **EMERGENCY WATER SUPPLY AND ELECTRICAL GENERATING EQUIPMENT**

**OBJECTIVE:** PROVIDE FOR A CAPABILITY TO ASSIST LOCAL GOVERNMENTS IN AN EMERGENCY WHICH RESULTS IN WATER OR POWER SUPPLY PROBLEMS BY LOANING FEDERALLY PROCURED ELECTRIC GENERATORS AND WATER SUPPLY EQUIPMENT SUCH AS PIPES, AND PUMPS.

DCPA emergency equipment includes about 450 miles of water pipe, pumps, chlorinators, purifiers, storage tanks, and electric generators. Started in 1952 at a cost of only \$6 million, the stockpile of emergency water supply and generating equipment now has a replacement value of approximately \$30 million. Most of the existing emergency water supply equipment and some of the electrical generating equipment were purchased during the period 1952-1956. Some electrical generators have been acquired through various excess property programs since 1956. In order to assure an efficient, serviceable, and operational stockpile, a replacement program was initiated during fiscal year 1973 to gradually replace the major items of the emergency water supply equipment inventory: 1,500 gal.-per-min. pumps, water purification units, and steel pipe.

The equipment is stored at 13 warehouses located throughout the country. The warehouses are managed by the Defense Supply Agency (DSA), through the Defense General Supply Center (DGSC) at Richmond, Va., a field activity of DSA which is the National Inventory Control Point for the DCPA emergency equipment.

During fiscal year 1975, 94 communities in 28 States were assisted by DCPA through the loan of emergency power/water equipment. In many cases, the loans enabled communities to avoid spending their limited funds for new equipment needed only temporarily. In other cases, the needed equipment could not have been obtained in time to meet the emergencies.

## **TRAINING SUPPORT**

**STATE OBJECTIVE:** PROVIDE FOR THE NECESSARY SUPPORT WHICH WILL RESULT IN THE EFFICIENT AND EFFECTIVE CIVIL DEFENSE TRAINING OF STATE GOVERNMENT PERSONNEL.

**LOCAL OBJECTIVE:** PROVIDE FOR THE NECESSARY SUPPORT WHICH WILL RESULT IN THE EFFICIENT AND EFFECTIVE CIVIL DEFENSE TRAINING OF INDIVIDUALS.

### **Instructional and Personnel Development**

**State Sub-Objective:** To provide for the development and evaluation of training programs and activities to help the States in their efforts to improve local civil preparedness through training.

**Local Sub-Objective:** To provide for the development and evaluation of training materials for use by the emergency services of local government to assist in preparing regular service personnel and auxiliaries to fulfill their emergency responsibilities.

The DCPA Instructional and Personnel Development Program provides for continued development and production of training materials in support of the instructional program, and for partial reimbursement of travel and per diem expenses of students attending DCPA Staff College.

Significant fiscal year 1975 accomplishments in the area of Instructional and Personnel Development include:

- Crisis Relocation Planning materials were developed for use in selected resident courses, and a staff report was prepared with recommendations for a proposed national training program for CRP personnel.

- A plan of instruction and lesson plan outline for a new Manual Damage Estimation System Instructor course was developed. The pilot course was conducted in September 1974, with 18 DCPA Regional and Headquarters personnel in attendance. The purpose of the course is to provide the ability to deploy to each level of government a manual capability to estimate remaining residual resources following a nuclear attack. Two instructional television (ITV) videocassette modules were developed for use in the course.

- A training course for the development of State and local emergency response plans was designed at the request of the Federal Interagency Task Force for Training and Exercises, and in cooperation with DCPA Headquarters and the Nuclear Regulatory Commission. Staff College coordinated a Select Working Group composed of Federal, State, and local government personnel in the development of a plan of instruction. The

pilot offering of Radiological Emergency Response Planning Course in Support of Fixed Nuclear Facilities was conducted at Staff College in March 1975, with 19 students, 13 observers, and 8 faculty members in attendance. The results of this course prompted the task force decision to schedule a series of courses at Staff College during fiscal years 1976 and 1977. The purpose of the course is to improve the quality and effectiveness of State and local emergency plans to deal with the effects of an accident at a fixed nuclear facility.

• A new one-week Introduction to Civil Preparedness course was developed for deployment during fiscal year 1976. The course provides familiarization with fundamental concepts and elements of civil preparedness to those persons who have not had previous formal civil preparedness training. It summarizes what is known about the nuclear attack environment and the related requirement for natural disaster preparedness. Emphasis is on the "all-hazard" approach to operational readiness at the local level.

• In response to a request from the Salvation Army, plans were initiated to assist in the development of a course focusing on the establishment and operation of feeding, clothing, and housing centers, and related center counseling activities. The course will include instruction on natural disasters and emergency operations simulation exercises.

• Plans were completed for the first NATO Civil Defense Training Seminar hosted by DCPA Staff College. The purpose of the seminar was to analyze, discuss, and compare training program techniques and methodologies used in various NATO member countries. A typical training model was developed for use as a vehicle for facilitating discussion among the seminar participants.

• Two Research Seminars were conducted. In December 1974, Iowa State University conducted a seminar focused on teaching the operational model of interorganizational coordination. It was the first time that research models of interorganizational coordination processes were made into operational models for classroom teaching. The second seminar was conducted in March 1975 by Michigan State University. The subject was Communications and the Local Coordinator, and stressed the importance of communications theory and its application to the local civil preparedness director/coordinator.

• Plans were approved and equipment ordered for development of an in-house videotape duplica-

tion system at DCPA Staff College to facilitate rapid videotape duplication and distribution to field users.

## Instructional Materials

**State Sub-Objective:** To provide for training materials support for the State civil preparedness instructional programs including materials for use by DCPA Staff College.

**Local Sub-Objective:** To provide for training materials support for the local civil preparedness instructional programs including materials for use by DCPA Staff College.

DCPA develops, produces, and distributes materials for use by instructors in State contract programs, teachers in the public and private schools of the Nation, and individuals pursuing civil preparedness self-study. Training materials include home study course textbooks, student manuals or guides, instructor guides, motion picture films, filmstrips, videotapes, slides, transparencies, and other devices.

During the fiscal year, 4 new training publications, 17 training films, and 5 instructional television modules were produced and distributed by DCPA for use in the standardized presentation of DCPA policy and doctrine.

## Student Expense

**State Sub-Objective:** To provide for partial reimbursement to eligible students under the provisions of the Federal Civil Defense Act of 1950 (P.L. 920), as amended, for expenses incurred in attendance at resident courses conducted by DCPA Staff College.

**Local Sub-Objective:** To provide for partial reimbursement to eligible students under the provisions of the Federal Civil Defense Act of 1950 (P.L. 920), as amended, for expenses incurred in attendance at resident courses conducted by DCPA Staff College.

Partial reimbursement of travel and per diem expenses of students attending DCPA schools was continued to encourage training of State and local civil preparedness personnel. Course-completion certificates issued to students reimbursed under this program during the fiscal year numbered 322; and

the amount reimbursed was \$39,600. Cumulative expenditures since this program was started in fiscal year 1960 total \$921,288, and the cumulative total of completion certificates is 13,297.

## CITIZEN EMERGENCY INFORMATION

### **OBJECTIVE: PROVIDE FOR THE NECESSARY INDIVIDUAL INFORMATION WHICH WILL RESULT IN APPROPRIATE PUBLIC RESPONSE PRIOR TO, DURING, AND AFTER AN ATTACK OR PEACETIME DISASTER.**

Efforts continued during fiscal year 1975 to reach the general public with survival information, and to encourage improved emergency readiness at all levels of government and in industry through information directed to key officials.

As in the past, all information media were utilized, in conformance with Section 201(f) of the Federal Civil Defense Act of 1950 (Public Law 920, 81st Congress), as amended, which authorizes the DCPA Director to "publicly disseminate appropriate civil defense information by all appropriate means." Included were not only the printed and electronic media, but motion pictures, videotape presentations, slide sets, and liaison activities with other governmental organizations—Federal, State, local, and friendly foreign nations—as well as with members of industry, labor, and civic organizations.

Among significant trends and highlights during the fiscal year were:

- A greatly increased emphasis on planning to meet the hazards of fire in high-rise structures. A spate of articles on various aspects of the subject appeared during fiscal year 1975, and at its close, a DCPA publication was coming off the presses reprinting four key articles.

- A widespread effort to bring more organizations into an active civil preparedness role, and to formalize DCPA's relationships with other organizations having an important place in overall emergency operations. Typical of the latter was the DCPA Memorandum of Understanding with the Civil Air Patrol, which was signed during the year and widely publicized.

- A continued stress on information which aids in planning for and coping with peacetime disasters, thus better preparing emergency organizations, especially at the local level, to meet their nuclear war as well as peacetime responsibilities. Nine new films were released in the "Your Chance To Live" series—eight of them concerning peacetime hazards

—and four more films were in production at fiscal year's end. A revised set of 35mm slides on natural disasters, entitled "Selected Slides on Peacetime Disasters," was issued primarily for use by local officials in disseminating survival information to their constituents and stirring interest in emergency preparedness programs.

Some of the more important articles published under the byline of the DCPA Director reflected this trend. For example, the Council of State Governments' publications, *State Government*, autumn 1974 issue, carried an article entitled "After the Storm Is Too Late" discussing the devastating tornadoes of April 1974. Portions of this article were later picked up by *Occupational Hazards* magazine, and also in *Safety News*, the monthly publication of the National Safety Council. Articles by the DCPA Director encouraging disaster preparations also appeared in *Outlook*, published by the National Association of Counties, and in *Military Engineer* magazine for March/April 1975, which carried a story on "The New Look in Civil Preparedness."

Newspapers and other printed mass media were running an increasing number of stories and expressing more interest in civil preparedness problems and programs during the later half of fiscal year 1975, including an article on use of mines as shelters which appeared in the June 15 *Parade* magazine supplement to 108 Sunday newspapers.

### **Publications**

"*FORESIGHT*."—DCPA's own bimonthly publication, *FORESIGHT*, experienced rapid growth in contributions by emergency preparedness professionals, reader interest, and circulation during its second year of publication. Its six editions carried a total of 81 complete informational articles on a wide range of subjects in the field of civil preparedness. No less than a third of these articles involved some aspect of emergency planning or operations in coping with various types of major disasters such as tornadoes, hurricanes, floods, fires, earthquakes, ice storms, or nuclear attack. Other subjects included safety features in schools, at home, or in industry; emergency medical care, search and rescue, shelter, civil defense in public education, military aid with emphasis on MOBDES, weather aspects of civil defense, disaster warning, and foreign or international civil defense.

Authors of the articles were from a wide variety of backgrounds and sources. About 20 percent of the articles were prepared by State and local

officials, 16 percent by DCPA regional personnel, 8 percent by personnel of other Federal agencies, and 10 percent by recognized authorities in fields such as research and education. DCPA headquarters personnel generated the remaining 46 percent of the articles as part of their professional work and experience throughout the year.

FORESIGHT's circulation expanded from 45,000 to nearly 60,000 during the year. State and local readers included governors, mayors, key city officials, county agricultural agents, and civil preparedness personnel. Federal readers included United States congressmen, military representatives and leaders, executive reservists, and agency defense coordinators. Copies were regularly circulated to public libraries, radio and television stations, college newspapers, selected research agencies, architects and engineers qualified as shelter analysts, and national and international organizations concerned with public safety, industrial defense coordinators, newspaper editors, industrial editors, and volunteer agencies. International organizations on FORESIGHT mailing lists included NATO (North Atlantic Treaty Organizations) and the Canadian National Emergency Planning Establishment. At the end of fiscal year 1975, plans were underway to send future issues of FORESIGHT to all U.S. daily and weekly newspapers.

As reflected by its circulation pattern and literary content, FORESIGHT seeks to inform and motivate people in both public and private life on how to cope with peacetime disaster or the effects of nuclear attack. Each issue is designed to cover a wide range of safety and readiness subjects and to serve the long-range informational needs of everyone responsible for public safety.

An important byproduct of FORESIGHT's publication has been requests for reprints of certain articles. For example, "Your 'Help' Can Hurt," which appeared in the March/April edition of FORESIGHT proved to be of both national and international interest. At the request of various State agencies, the U.S. State Department's Agency for International Development, and others, 18,000 reprints were made of this article. In it, Mr. Walter D. Hyle, Jr., President of the United States Civil Defense Council, and Civil Defense Director of Baltimore County, Maryland, makes a vivid case of how "useless and damaging" it can be to send indiscriminately "all possible aid" to disaster areas. His thesis is that effective action can be taken when disaster area coordinators specify what help is

needed and the responses are limited to these needs.

Articles on the potential and problems associated with earthquake prediction and on actions being taken to cope with the problems of fire in high-rise buildings also were reprinted on request and widely distributed.

*In Time of Emergency.*—"In Time of Emergency . . .," a citizen's handbook for dealing with peacetime and wartime disasters, continued to be recognized and used nationwide as a standard reference for personal preparedness, and action in emergencies. Nearly 900 thousand copies were requested and distributed during fiscal year 1975, bringing the total distribution to nearly 26 million since it was first printed in 1968. The Spanish version, "Durante la Emergencia . . .," continued to be in strong demand in Puerto Rico, California, the Southwest, and other areas with Spanish-speaking citizens.

### Audio-Visual Materials

*Motion Pictures.*—Nine 16mm color films in the series, "Your Chance To Live," were released in fiscal year 1975. The subjects were "Earthwatch," "Pollution," and "Nuclear Disaster." A total of 10,953 prints was released to 46 State Civil Preparedness Education Advisors, and to 4 U.S. Territories for use in supporting a civil preparedness course of study in public school systems. Some States prepared additional copies of these nine films by transferring to videotape. An additional 216 prints of this series were released to DCPA Regions One, Three, and Seven, for use on local television and by community organizations.

Single prints of three DCPA 16mm color films were distributed to DCPA Regional Offices, State civil preparedness agencies, the DCPA Staff College, the NATO Film Library, and to Emergency Planning Canada, the Canadian civil preparedness organization. Prints for free loan to the general public and to television stations were distributed through the U.S. Army Audio Visual Support Centers (film libraries). These films were "Storm" (225 prints), "The Everglades and After," (175 prints), and "Survival in The Winter Storm" (135 prints).

Production was completed on four new 16mm color films in the "Your Chance To Live" series. They were "Heat Wave," "Technological Failures," "Psychological Response," and "An Instructors Guide." These four completed a total of 13 films in the series. Release prints will be distributed in fiscal year 1976.

The 13 films in the "Your Chance To Live"

series were translated into Spanish for the dialogue. Production was completed, and release prints will be distributed in fiscal year 1976 to selected States, to Puerto Rico, and for loan to Central and South American countries.

Production was completed on 13 filmstrips in the "Your Chance To Live" series. Eight of the filmstrips were released in the form of a filmstrip kit (4,642 kits) to the State civil preparedness education advisors. The five remaining filmstrips will be packaged as a filmstrip kit and released in fiscal year 1976.

Production of "Conflagration," a 28½ minute, 16mm color film was completed. Distribution of this film, concerning the huge fire at Chelsea, Massachusetts, is expected in fiscal year 1976.

Production of a short version of the DCPA film "Storm" was completed, and release prints were distributed to the DCPA Regional Offices, State civil preparedness agencies, the DCPA Staff College, and to the Army Audio-Visual Support Centers.

"An Ill Wind," a film produced by the State Farm Fire and Casualty Co., was distributed to DCPA Regional Offices, the DCPA Staff College, and to selected college engineering departments. The film informs viewers of the importance of tying-down mobile homes.

*Videotape Recordings.*—A videotape was produced featuring the Director of DCPA, and the Director, DCPA Program Review Office, entitled "DCPA Training Program for Local Directors." Copies were distributed to the DCPA Regional Offices and the DCPA Staff College.

A videotape was produced for the DCPA Research and Engineering Directorate on "Updating of Nuclear Weapons Effects." Copies were distributed to the DCPA Regional Offices and the DCPA Staff College.

The production of two briefings was coordinated for the DCPA Plans and Operations Directorate: "The Threat," and PONA II." Copies were distributed to DCPA Regional Offices and the DCPA Staff College, and to the Office of Preparedness, GSA.

*Film Festivals.*—The DCPA films "Storm," "Earthquake," (short version), "Earthwatch," "Pollution," "Twister," "The Everglades and After," and "Nuclear Disaster" were selected by the U.S. Government Interdepartmental Subcommittee on Selection of Motion Pictures for Participation in Film Events as entries in five fiscal year 1975 film festivals.

Two films, "Pollution" and "Nuclear Disaster," won Golden Eagle Awards in the Council on International Nontheatrical Events (CINE) film festival. The film "Pollution" shared the First Place Award with a USSR entry in the International Festival of Films on Ecology at Belgrade, Yugoslavia.

*Network TV Programs.*—DCPA provided support information and film footage for the following network television programs: "CBS Sunday Evening News," and "Mr. Rooney Goes to Washington" (CBS); and "Nuclear Proliferation" (NBC). The Director of DCPA appeared in the first two programs, and stock footage was furnished for all three.

*Films in Production.*—Planning, research, and scripting was commenced on three projected fiscal year 1976 film productions. The subjects are: "Industrial Emergency Preparedness," "Emergency Power and Water Equipment," and "Radiological Emergency Response Planning."

## LIAISON SERVICES

**OBJECTIVE: PROVIDE FOR ENCOURAGEMENT, ASSISTANCE, GUIDANCE AND COORDINATION TO BUSINESS AND INDUSTRIAL ORGANIZATIONS, TRADE AND PROFESSIONAL ORGANIZATIONS, FEDERAL DEPARTMENTS AND AGENCIES, AND CIVIC AND FRATERNAL GROUPS IN PROVIDING FOR THE PROTECTION OF THEIR EMPLOYEES, MEMBERS, OR CLIENTELE AND THEIR FACILITIES AGAINST ATTACK, NATURAL DISASTER AND MAJOR INDUSTRIAL ACCIDENTS,**

### Armed Services Liaison

DCPA receives timely and effective active support from the Armed Services. The concept of military support for civil authority received continued emphasis from the Armed Services during fiscal year 1975. All Services have recognized the need for a strong civil preparedness program, and have developed comprehensive survival and recovery plans to assist civil authority in the event of enemy attack or natural disaster. The Secretary of the Army has been designated as executive agent for providing military support to civil jurisdictions. The Commanding General, U.S. Forces Command and Continental U.S. Army Commanders provide planning guidance to State Adjutants General in

the preparation of military support for civil defense plans in each of the 48 contiguous States. In Alaska, Hawaii, and Puerto Rico similar plans are developed by the appropriate command and the State Adjutant General. Current plans call for each Adjutant General, when called to Federal service as a State area commander, to exercise operational control over military units made available for trans-attack and postattack military support requirements. Eight U.S. Army Reserve Civil Defense Support Detachments are assigned to augment communications and security personnel at DCPA Federal Regional Centers in the event of enemy attack, and can be made available during natural disaster.

*Civil Preparedness Military Reserve Mobilization Designee Program (CP MOBDES).*—Initiated in fiscal year 1973, the CP MOBDES program provides significant improvement in local civil preparedness. Under the program, Army, Air Force, and Marine reservists—officers, warrant officers, and enlisted members of the Individual Ready Reserve, both male and female—have the opportunity to serve as Civil Preparedness Mobilization Designees, with training and duty at State or local civil preparedness offices, or at Regional Offices of the Defense Civil Preparedness Agency. The objective of the program is to strengthen the emergency capabilities of civil governments—local, State, and Federal—by augmenting these civil preparedness agency staffs with trained reserve MOBDES personnel. These personnel serve as specialists on the civilian staffs of the civil preparedness agencies. The MOBDES program is related primarily to general war preparedness, but also pays dividends in peacetime emergency preparedness. In case of a national emergency, MOBDES augmentees have “hip-pocket” orders calling them to active duty in the job for which they have been trained at the agency where they are assigned. Benefits for the CP MOBDES personnel include the opportunity of earning the required point credit for a satisfactory retirement year; and training and duty stations within daily commuting distance of their homes.

Civil Preparedness Mobilization Designees with disaster-related assignments completed a variety of home study and resident training courses designed to increase their knowledge of Civil Preparedness in general and to improve or develop specific emergency preparedness skills.

CP MOBDES participation at the end of fiscal year 1975 included 1,100 Army, Air Force, and Marine Corps reservists throughout the United States, with about 70 percent of the reservists serv-

ing with the civil preparedness agencies of their local governments; 20 percent with State government agencies; and the remainder with the eight DCPA Regional Offices.

## **PROGRAM STATUS—JUNE 30, 1975**

• 171 CP MOBDES personnel had completed the Emergency Readiness Exercise Development course.

### **Liaison With Other Federal Departments and Agencies**

DCPA On-Site Assistance activity is increasingly becoming a vehicle for the coordinated guidance and assistance provided by other Federal agencies to local governments in developing emergency preparedness. Examples of joint DCPA and other Federal agency coordinated support to local governments are: Natural disaster hazard analysis and public warning procedures with National Weather Service; overall disaster preparedness and post-disaster assistance with Federal Disaster Assistance Administration; emergency communications systems with Law Enforcement Assistance Administration; ambulance and rescue with Department of Transportation; airport disaster planning and planning for the use of general aviation resources during emergencies with Federal Aviation Administration; maritime disaster support with the U.S. Coast Guard; search and rescue for downed aircraft with U.S. Air Force; emergency medical services and hospital disaster plans with Department of Health, Education, and Welfare; emergency air and ground support with National Civil Air Patrol; flood-related emergency plans with the U.S. Army Corps of Engineers; county agricultural disaster problems with the U.S. Department of Agriculture; peacetime nuclear accident hazards planning with the Nuclear Regulatory Commission; environmental hazards with Environmental Protection Agency; and nuclear war preparedness with General Services Administration, Office of Preparedness.

### **Industrial Liaison**

During fiscal year 1975, work continued for the support of business and industry in community emergency preparedness; and continuing guidance was provided to business and industry on (1) safeguarding of personnel and facilities, (2) continuity of management, (3) protection of vital records, (4) improvement of company disaster plans, and (5) development of mutual-assistance pacts.

*Guidance and Information Material.*—A total of 55,000 copies of "Disaster Planning Guide for Business and Industry," was distributed during the fiscal year. The publication offers guidance to business and industry over a wide range of emergency preparedness topics.

Publication and distribution of a bibliography of industrial disaster preparedness and related publications, entitled "Disaster Preparedness Publications for Business and Industry," brought wide response from business and industry, local civil preparedness and other government agencies, and colleges, hospitals, and other institutions. Within the first three weeks, 659 requests were received for titles contained in the publication. Of these requests, 151 were from business and industry.

Other items published include "Disaster Planning Can Be Rough," which contains information on the DCPA Industry/Business Emergency Planning course at the DCPA Staff College, and a postcard which can be used to request placement on a mailing list to receive new industry publications.

High-rise fires was a subject of special emphasis during the fiscal year, and several informational pieces were produced. An article by the DCPA Director in *Security Management*, entitled "Preparedness and the Vertical City," was credited with helping spur interest in formation of a Building Safety Committee in Denver, Colorado. A series of two articles in the DCPA magazine *FORESIGHT*, titled "Lowering High-Rise Risks," and "A Fire-safety First," were reprinted by the General Services Administration for distribution at the dedication of its 37-story Seattle Federal Building; and an article, "A Burning Issue," was accepted for publication by *Management World*.

A new publication, at the printers at the close of fiscal year 1975, is composed of reprints of four articles dealing with various aspects of high-rise fires. The articles are: "The Physiological and Psychological Effects," by Dr. Anne Wight Phillips; "Preparedness and the Vertical City," by John E. Davis, DCPA Director; "Command Decision!" by Charles V. Walsh, retired Deputy Chief of the New York City Fire Department; and "Is Your Building Fire-safe?" a 10-question test on a building's fire protection systems, devised by GSA.

To be more consistent in reaching a wider audience of people involved in company disaster preparedness planning, as well as other special segments, several new categories were added to the DCPA mailing lists. These include the current

119 graduates of the Defense Industrial Security Institute's Industrial Facilities Protection course; 118 universities, colleges, and instructors involved in loss-prevention education programs; 103 editors of industrial association publications; 250 graduates of the Industry/Business Emergency Planning course; and 148 national, State, and local officers of the National Defense Transportation Association.

*Training, Seminars, Conferences, and Conventions.*—Three Industry/Business Emergency Planning courses were conducted at DCPA Staff College in Battle Creek, Michigan, in fiscal year 1975. A total of 128 students attended, with 85 being from industry and the balance from Federal, State, and local government, and from universities and hospitals. This course stresses the importance of emergency planning, and of being prepared for nuclear attack as well as natural disasters. It concludes with an emergency exercise to allow students to apply what they have learned.

DCPA was represented by speakers for the six fiscal year 1975 courses at the Industrial Facilities Protection course sponsored by the Defense Industrial Security Institute at Richmond, Va. Almost all of 153 students who attended the courses represented industries important to the national defense effort.

During the fiscal year, advice and guidance were provided to many organizations, business, and industry by attendance at the participation in meetings, conventions, seminars, and conferences. Examples of these types of organizations are: National Defense Transportation Association, Aerospace Industries Association, American Society for Industrial Security, American Gas Association, Administrative Management Society, American Defense Preparedness Association, National Association of Home Builders, National Association of Manufacturers, Chamber of Commerce of the U.S., National Association of Power Engineers, American Society of Association Executives, National Petroleum Council, International Security Conference, International Association of Chiefs of Police, United States Civil Defense Council, Mobile Homebuilders Association, American Bankers Association, Corn Refiners Association, and American Association of Industrial Nurses.

*Institutions of Higher Learning.*—Guidance and information was provided also to instructors and students in loss-prevention classes and programs, including those sponsored by: University of Maryland University College, University of Chicago Continuing Education Department, Holyoke Com-

munity College, Jersey City State College Center for Occupational Education, Southern Maine Vocational Technical Institute, Anne Arundel Community College Law Enforcement Division, Northern Virginia Community College, J. Sargent Reynolds Community College Law Enforcement Department, Valencia Community College, Eastern Kentucky University College of Law Enforcement, Alpena Community College, Western Illinois University Law Enforcement Administration Department, Texas A&M University, Golden Gate University, and Washington State University.

### **National Organizations Liaison**

A diversified program to enlist support for expanded activity among national organizations in civil preparedness was carried out in fiscal year 1975. Organizations such as the International Association of Chiefs of Police were provided course materials for dealing with civil disturbances and sabotage. These were to be used in training seminars to be held throughout the United States. In addition, assistance was provided to the Industrial College of the Armed Forces in preparing an hour-long presentation on "Emergency Preparedness." This course was to be given in seven States under the sponsorship of Chambers of Commerce or Veterans' groups.

Wide distribution was given a Memorandum of Understanding between DCPA and the Civil Air Patrol. The agreement was discussed also in a feature article on CAP in the DCPA magazine *FORESIGHT*, and in CAP workshops for Information Officers; and was tested in simulated hurricane exercises.

Increased activity in the Salvation Army's role in civil preparedness in five U.S. area headquarters resulted from conferences with the organization's Chief Public Affairs Officer.

Veterans' organizations continued to give widespread support to civil preparedness. The AMVETS launched a nationwide preparedness program through a mass mailing of guidance materials to more than 9,000 Posts, with a covering letter from the National Commander. The American Legion Auxiliary continued active support, with many innovations providing models for other auxiliaries within veterans' organizations.

Government-related organizations such as the National Association of Counties, the National League of Cities, and the U.S. Conference of Mayors stimulated civil preparedness interest in

counties and cities through programs coordinated with DCPA. The National Association of Counties presented Emergency Preparedness achievement awards at the national convention to 11 U.S. counties. The awards were featured in an article in *FORESIGHT*; and news releases concerning the achievements were distributed by DCPA to the news media.

Youth organizations such as the Boy Scouts, Explorers, Girls' Clubs, Girl Scouts, 4-H Juvenile Groups, Future Farmers of America, and Civil Air Patrol Cadets showed new interest in civil preparedness, for inclusion in their organization training programs.

### **INTERNATIONAL ACTIVITIES**

Mutual civil preparedness planning, training assistance, and the exchange of information with friendly nations continued as the principal international activities of DCPA during fiscal year 1975. In coordination with the Office of the Secretary of Defense (Installation and Logistics) and the Department of State, DCPA maintained cooperative relations with civil preparedness organizations of other friendly governments, the North Atlantic Treaty Organization (NATO), the Organization of American States (OAS), and the US/Canada Civil Emergency Planning Committee (CEPC).

The DCPA Director, accompanied by his Special Assistant, represented the U.S. at the October 1974 meeting of the NATO Civil Defense Committee in Brussels, following which they visited Norway, Sweden, and Finland to confer with civil defense directors on problems of mutual interest and to tour protective facilities in those countries. A DCPA radiological specialist participated as a member of a U.S. Delegation composed of industrial and government representatives in meetings of the Technical Committee 45 (TC45) of the International Electrotechnical Commission (IEC), held in Rome and Milan in November 1974. The Commission is concerned with formulating standards for health physics, reactor control and industrial process control type of nuclear instrumentation.

The DCPA Acting General Counsel participated with other DoD and State Department officials in development of the U.S. position with respect to proposed articles in draft treaties currently being discussed in the Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law applicable in Armed Conflicts. This conference is being held in Geneva, Switzer-

land. Of particular interest are articles that would accord special protection to civil defense bodies and personnel engaged in civil defense work. These proposed articles were not discussed at the second session of the conference held during February/April 1975, but probably will be a significant topic of discussion at the spring 1976 session.

Forty-five civil defense officials from 16 countries visited DCPA during the fiscal year, including the Directors General of Civil Emergency Planning in Canada and Denmark, the Secretary General of the Finnish Civil Defense Organization, and the Inspector General, Imperial Iranian Armed Forces, along with additional representatives from Australia, Belgium, Burma, Canada, Denmark, Finland, Germany, Greece, Iran, Israel, Japan, Saudi Arabia, South Africa, Sweden, the United Kingdom, and Venezuela.

In June 1975, DCPA sponsored a NATO civil preparedness seminar, "Preparing Governments and People To Meet Disasters Through Training," attended by 20 delegates from 10 of the 15 NATO nations. Participating were representatives of Belgium, Canada, Denmark, Germany, Iceland, Italy, the Netherlands, Norway, the United Kingdom, and the United States. Following briefings in Washington, the group traveled to Battle Creek, Michigan, for the four-day Seminar at the DCPA Staff College. The Seminar objective was to provide a forum for Directors of Civil Defense Schools and officials responsible for national preparedness training in the NATO countries to meet and exchange ideas on various training techniques, policies, and procedures. The Seminar, proposed by the United States in the fall of 1974, was the first of its kind, and was considered a successful pilot venture; with the participants recommending that such seminars be continued every two years.

The United States Civil Defense Council (USCDC) held its first International Disaster Preparedness Conference in conjunction with its regular annual meeting in San Juan, Puerto Rico, in October 1974. DCPA provided extensive support, advice, and active assistance in planning and organizing the conference for the USCDC. The Department of State, through its Agency for International Development (AID), also cooperated closely in the planning and conduct of presentations at the conference. DCPA edited transcripts of nine selected presentations and published them in a single indexed volume for distribution by the USCDC as a source of useful information for officials responsible for disaster preparedness planning

operations both in the United States and abroad.

In November 1974, at the request of the Department of State (AID), DCPA assigned a representative to accompany the AID Chief of Disaster Preparedness Planning in an on-site assistance survey of the Inter-Regional Caribbean Emergency Relief Organization (ICERO) in Port-of-Spain, Trinidad, and the disaster preparedness agencies in Trinidad and Tobago.

DCPA extended its usual full-scale collaboration to the AID 1975 International Disaster Preparedness Seminar held in the United States from June 10 to July 18, offering instruction and exchange of information in disaster preparedness, and relief and recovery operations. Twenty-four government officials, charged with disaster responsibilities, from 20 foreign countries, were provided DCPA assistance in the form of special lectures, publications, and films; and the DCPA Staff College faculty and facilities were made available to the group for a four-day period.

DCPA maintained relations with the Organization of American States (OAS), and initiated cooperative relations with the Inter-American Defense Board and the Inter-American Defense College.

NATO and Central Treaty Organization (CENTO) member countries were furnished DCPA public information and technical material, including the DCPA magazine FORESIGHT, as well as the Annual Report for fiscal year 1974.

In response to 226 foreign requests, information and publications were sent to 40 countries. Two new DCPA motion pictures were furnished the NATO Civil Defense library for loan to member countries.

The US/Canada Civil Emergency Planning Committee (CEPC) is responsible for supervising US/Canada cooperative Civil Emergency Planning arrangements. The Regional Civil Emergency Advisory Committee (RCEAC) is responsible for advising the US/Canada Civil Emergency Planning Committee of joint or coordinated regional actions or planning activities required for achieving and maintaining a maximum degree of cross-border emergency operational readiness.

Because of organizational changes at the Federal level of agencies responsible for emergency planning in both the United States and Canada, meetings of the two committees for fiscal year 1975 were suspended. Day-to-day liaison activities continued between DCPA officials and their Canadian counterparts.

## **RED CROSS ADVISORY SERVICES**

**OBJECTIVE: PROVIDE FOR RESIDENT AMERICAN NATIONAL RED CROSS ADVISORS TO ASSIST IN THE DEVELOPMENT OF CIVIL DEFENSE MASS CARE SERVICES.**

***Sub-Objective: To provide assistance to local governments in developing coordinated governmental emergency mass care capabilities.***

During fiscal year 1975, the services of The American National Red Cross (ANRC) were available to DCPA in education and training, and in advisory and operational capacities. Invaluable assistance was provided to State and local officials by ANRC advisors in disaster preparedness plan-

ning and during emergency operations in natural disasters throughout the country. The ANRC continued to assist DCPA in providing fallout shelter space in its buildings in accordance with a Memorandum of Understanding dated March 7, 1973.

The organization also continued to encourage its four area offices, field representatives, local Red Cross chapters, local organizations, and community groups in development of civil defense and disaster preparedness plans and measures. To further these efforts, an ANRC representative maintains liaison with DCPA at the national level, and there is an ANRC advisor at each DCPA Regional Office. Local ANRC chapters train millions of persons in first aid, home nursing, and emergency mass feeding. Persons trained in these skills are essential to civil preparedness.

# MANAGEMENT



MANAGEMENT

## MANAGEMENT AT FEDERAL LEVEL

**OBJECTIVE: PROVIDE FOR A FEDERAL STAFF REQUIRED TO SUSTAIN AND MANAGE AN EFFICIENT AND EFFECTIVE CIVIL DEFENSE PROGRAM, AND CAPABLE OF PERFORMING AND COORDINATING ESSENTIAL GOVERNMENTAL FUNCTIONS UNDER EMERGENCY CONDITIONS.**

### DCPA Organization and Structure

The programs of the DCPA are based primarily on the Federal Civil Defense Act of 1950 which states the intent of Congress to "provide a system of civil defense for the protection of life and property in the United States from attack." In addition to the Federal Civil Defense Act of 1950, other bases for DCPA programs include: Executive Order 10952; Public Law 93-288, known as "The Disaster Relief Act of 1974;" and Department of Defense Directive 5105.43, "Defense Civil Preparedness Agency," July 14, 1972.

In accordance with Executive Order 10952, John E. Davis, Director of DCPA, acts for the Secretary of Defense in developing and administering the overall National Civil Preparedness Program.

DCPA is organized as a separate and distinct Agency of the Department of Defense, and is civilian in character and direction. DCPA Headquarters is located in the Pentagon. In addition there are eight DCPA Regional Offices located at Region One, Maynard, Mass.; Region Two, Olney, Md.; Region Three, Thomasville, Ga.; Region Four, Battle Creek, Mich.; Region Five, Denton, Tex.; Region Six, Denver, Colo.; Region Seven, Santa Rosa, Calif.; and Region Eight, Bothell, Wash. In addition, there are two Regional Field Offices, at New York City in Region One, and Kansas City, Mo., in Region Six. The DCPA Staff College is at Battle Creek, Mich. On July 1, 1974, the National Civil Defense Computer Support Agency was transferred from the Corps of Engineers to DCPA and redesignated the DCPA Computer Center at Olney, Md.

In the civil preparedness program, DCPA works with the 50 States, Puerto Rico, The Virgin Islands, Guam, and the District of Columbia; and through the States with 6,438 local program areas—consisting of counties, cities, towns, and various other jurisdictions—of the United States. The main thrust of the National Civil Preparedness Program

is to help States and communities develop dual-use emergency systems to protect people and property from the effects of nuclear attack and peacetime disasters.

## MANAGEMENT AT STATE AND LOCAL LEVELS

**STATE OBJECTIVE: PROVIDE FOR A STATE-LEVEL ORGANIZATIONAL CAPABILITY REQUIRED TO SUSTAIN AND MANAGE AN EFFICIENT AND EFFECTIVE CIVIL DEFENSE PROGRAM, AND CAPABLE OF PERFORMING AND COORDINATING ESSENTIAL GOVERNMENTAL FUNCTIONS UNDER EMERGENCY CONDITIONS.**

**LOCAL OBJECTIVE: PROVIDE FOR A LOCAL-LEVEL ORGANIZATIONAL CAPABILITY REQUIRED TO SUSTAIN AND MANAGE AN EFFICIENT AND EFFECTIVE CIVIL DEFENSE PROGRAM, AND CAPABLE OF PERFORMING AND COORDINATING ESSENTIAL GOVERNMENTAL FUNCTIONS UNDER EMERGENCY CONDITIONS.**

To save lives and reduce property damage, States and their political subdivisions require a capability to cope with wartime emergencies. In order to achieve emergency preparedness, State and local governments require basic organizational arrangements and appropriate staff. DCPA provides Federal matching funds to State and local governments for civil defense personnel and administrative expenses. With this Federal assistance, States and political subdivisions are expected to provide adequate numbers of personnel to fulfill pre-emergency operations planning and training requirements.

The complexity of the civil defense program and its divergent structure at the various levels of government call for a trained professional staff and for a cooperative relationship among Federal, State, and local governments. DCPA Federal matching funds provide the means for sharing this partnership at State and local levels, and assures a disciplined effort focused on national objectives.

Civil preparedness functions of government serve primarily to provide protection for people against the effects of nuclear attack. However, civil defense staffs exercise their plans and operating skills in natural and manmade disasters, with significant benefits to civil preparedness planning and disaster operations. The States and localities utilize their

trained staffs in planning for civil defense and natural disaster operations, in planning and providing disaster-oriented communications and warning systems, in coordinating diverse activities, organizing and training volunteers, and in practicing civil defense and disaster plans. During large-scale natural disasters, the entire capability of State and local civil defense personnel and facilities is devoted to countering the effects of the disasters.

The four basic requirements for a unit of government to be eligible for DCPA Federal assistance are: (1) Civil preparedness organization arrangements must be established pursuant to law, (2) there must be a State-approved emergency operations plan, (3) there must be an approved program paper for the current Federal fiscal year, and (4) the State or local civil preparedness agency must comply with Title VI of the Civil Rights Act of 1964. In addition, applicants for financial assistance for personnel and administrative expenses must (1) have an approved merit system for all of their civil preparedness employees, and (2) submit annually, a financial plan and staffing pattern.

DCPA allocates appropriated personnel and administrative funds directly to the States. The States in turn, allocate these funds to their political subdivisions. By fiscal yearend, DCPA had obligated a total of \$266.7 million for Personnel and Administrative Expenses since the program began in fiscal year 1961.

### **PROGRAM STATUS—JUNE 30, 1975**

- Each of the 54 State-level program areas, and 2,325 or 36 percent of the local program area civil defense organizations participated in the DCPA Personnel and Administrative Expenses Program; 61 percent of the population of the United States is located in local program areas participating in this program.

### **Program Management Information System**

***State Sub-Objective:*** To provide for the current status of civil preparedness and planned activity in the succeeding fiscal year.

***Local Sub-Objective:*** To provide for the current status of civil preparedness and planned activity in the succeeding fiscal year.

The DCPA Program Management Information System encourages State and local jurisdictions to review their current readiness to cope with disasters

and to project actions which will increase their current capabilities. The system allows the State civil preparedness agency and the DCPA Regional Office to review proposed actions for compliance with current DCPA guidance. The system provides DCPA managers with key information needed to give positive management and well-timed direction to the entire civil preparedness program. The scope and diversity of the civil preparedness program requires Federal, State, and local program decision-makers to deal continually with a large volume of varied program information. Program information should be accurately and selectively kept up to date, and carefully analyzed in order to identify key information items needed by decisionmakers to plan, manage, and coordinate their work. This program provides DCPA the capability to keep abreast of advances in the management field, and to apply and exploit those advances wherever they can improve the direction and control of DCPA programs.

The program paper is the key instrument for determining whether a State or political subdivision will be granted Federal matching funds or other Federal assistance. It describes what is planned to be accomplished during the next fiscal year, and the number of employees and funds needed to carry out these activities.

### **PROGRAM STATUS—JUNE 30, 1975**

- 54 State-level and 4,865 local program areas submitted Program Papers to DCPA.

### **Emergency Operations Plans**

***State Sub-Objective:*** To provide for guidance and assistance to each of the States in developing and maintaining plans and procedures for conduct of coordinated operations in case of threatened or actual attack or peacetime emergencies, making use of all forces of or available to State government, and also including coordination and support of local governments' operations.

***Local Sub-Objective:*** To provide for guidance and support to local governments in developing and maintaining plans and procedures for conduct of coordinated operations in case of threatened or actual attack or peacetime emergencies, making use of all forces of or available to local government.

State and local plans provide a basis for a capability to conduct coordinated operations, using all available manpower and resources. State and local emergency plans include a Basic Plan, plus additional parts or subordinate plans as required. The Basic Plan is relatively brief, and assigns missions to State and local departments and to nongovernmental groups or individuals with emergency capabilities; establishes the emergency organization under direction of the State Governor and the local chief executive; and includes procedures for requesting military or other Federal assistance.

Additional parts of State and local plans cover emergency contingencies as required (e.g., increased-readiness operations in periods of international crisis; crisis-relocation operations; operations during attack periods; operations for postattack resource management; operations before, during, and after natural disasters; or operations required for nuclear accidents).

Annexes and Standing Operating Procedures (SOP's) are developed as required for specific functions or organizations such as warning, EOC procedures, police, fire, medical, welfare, and RADEF. To be considered complete, an Emergency Operations Plan must (1) assign peacetime/attack emergency missions to departments of government, and to nongovernmental groups, (2) specify persons in charge, (3) establish governmental relationships, (4) establish procedures for requesting Federal or State support, and (5) be approved by the chief executive and department heads.

Unless provided for in State legislation, an ordinance (or resolution, where appropriate) must be enacted to provide legal authorization and support for the local civil preparedness program and activities, both in normal times and during emergency periods. It should include an appropriate Statement of Purpose, and should be in conformance with State legislation. If there is a model ordinance for use in localities within the State, this should be used as a point of departure, with local legal counsel adding any special provisions needed locally. The civil preparedness ordinance or other appropriate ordinance should extend the authority of local government to personnel who may support regular government forces during an emergency (e.g., auxiliary policemen, or shelter managers).

## PROGRAM STATUS—JUNE 30, 1975

- Each of the 54 State-level program areas, and

3,917 or 61 percent of the 6,438 local program area civil defense organizations had an ordinance which established the civil preparedness organization; 78 percent of the population of the United States is located in program areas covered by local ordinances.

- 45 or 83 percent of the State-level, and 4,674 or 73 percent of the local program area civil defense organizations had an Emergency Operations Plan (EOP) completed; 81 percent of the population of the United States is located in local program areas with completed EOP's.

## Training

***State Sub-Objective:*** To provide a full spectrum of courses, conferences, workshops and seminars to support the management of State-level civil preparedness efforts.

***Local Sub-Objective:*** To provide for a variety of training courses for local public officials, civil preparedness directors, Mobilization Designees, and other responsible individuals who deal with civil preparedness planning or operations for local government.

The DCPA Training and Education Program, under the program direction of DCPA Staff College, provides courses, conferences, workshops, and seminars to support the management of State and local civil preparedness efforts, by offering education and training opportunities for State and local civil defense directors/coordinators and their staffs, to improve their capability to develop and execute their assigned functions under emergency conditions.

The Training and Education Program includes (1) resident training courses conducted at the DCPA Staff College in Battle Creek, Mich., (2) home study (correspondence) courses developed and administered through the Staff College, (3) Civil Preparedness Education (CPE) assistance to the Nation's elementary and secondary schools, (4) field disaster preparedness training activities, courses, and State Seminars offered through contract assistance in the State and Local Civil Preparedness Instructional Program (SLCPIP) to State and local areas; and (5) specialized technical training such as Architect and Engineering Fallout Shelter Analysis, and Environmental Engineering courses administered by DCPA program directors, and hosted and conducted at DCPA Staff College.

## Director/Coordinator Training

The focal point of the DCPA training effort is the Director/Coordinator who is responsible for the development and coordination of emergency operations plans to cope with peacetime and attack-related hazards. Recommended training for the local Director/Coordinator varies according to full-time, half-time, or part-time job status and responsibility. Staff College courses provide an introductory package of home study to familiarize the new Director/Coordinator with civil preparedness programs, and the role of the typical Director/Coordinator. Home Study correspondence courses are (1) *Civil Defense, U.S.A.*, (2) *Civil Preparedness Director/Coordinator*, and (3) *Introduction to Radiological Monitoring*. Resident Civil Preparedness Career Development Program Courses, Phase I through IV, are designed to promote the professional development of the Director/Coordinator through a progression of training courses related to job, work environment, personal effectiveness, and the role of civil preparedness in national defense. Effective management of civil preparedness programs not only requires knowledge of the program but also of the functions performed by personnel in the program. Recurring graduate seminars keyed to current and related readiness information are offered by DCPA Staff College to encourage continued professional growth beyond the normal Civil Preparedness Career Development courses.

### PROGRAM STATUS—JUNE 30, 1975

• 10 of the 54 State-level, and 753 of the 6,438 DCPA local program areas had fully trained Directors/Coordinators.

#### State and Local Civil Preparedness Instructional Program

**State Sub-Objective:** To provide for education and training of State Civil Defense Directors and staff to improve their capability to guide and assist local governments in development and execution of their assigned functions under emergency conditions.

**Local Sub-Objective:** To provide for orientation on civil preparedness and emergency operation responsibilities for county and municipal government officials and for

## training of individuals responsible for either civil preparedness planning or operations.

To provide career development training, follow-up training determined as a result of On-Site Assistance Surveys, and Civil Preparedness orientation for public officials and representatives of business and industry, most training must take place within the States. The State and Local Civil Preparedness Instructional Program offered through contract assistance is designed to meet the following objectives: (1) orient key State and local officials to their emergency responsibilities, (2) provide professional instruction for civil defense personnel and other essential emergency operators; and (3) place survival and protection information in curricula of secondary schools within the State. The system established to meet these objectives takes advantage of the talents and capabilities that exist in the individual States and augments them to effectively and efficiently respond to civil preparedness instructional requirements of government at each level.

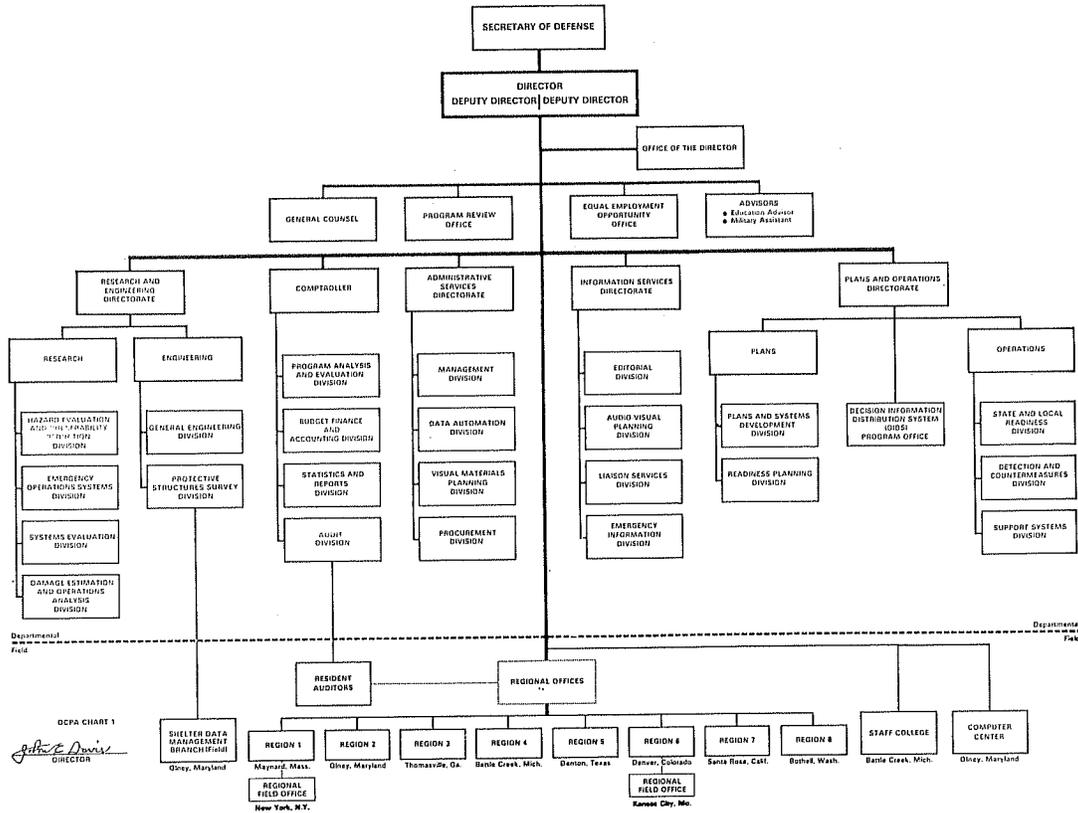
To provide local training assistance for State and local civil preparedness coordinators, professional staff members such as deputy directors, planning and operations officers, and training and shelter staff members, mobilization designees (CP MOBDES) military reservists, and other local officials who normally would be Emergency Operating Center staff members, the State and local Civil Preparedness Instructional Program makes available the following courses of instruction: Career Development Courses; Phase I, "The Job of the Coordinator," and Phase II, "The Work Environment of the Coordinator," and other courses, workshops, and seminars including (1) "Civil Preparedness Planning Workshops," (2) "State Seminars (Basic and Advanced)," (3) "Local Disaster Preparedness," (4) "RADEF I, Basic Concepts of CP Radiation Control," (5) "Conferences for Public Officials," (6) "Emergency Operations Simulations," and (7) "Emergency Readiness Exercise Development."

### PROGRAM STATUS—JUNE 30, 1975

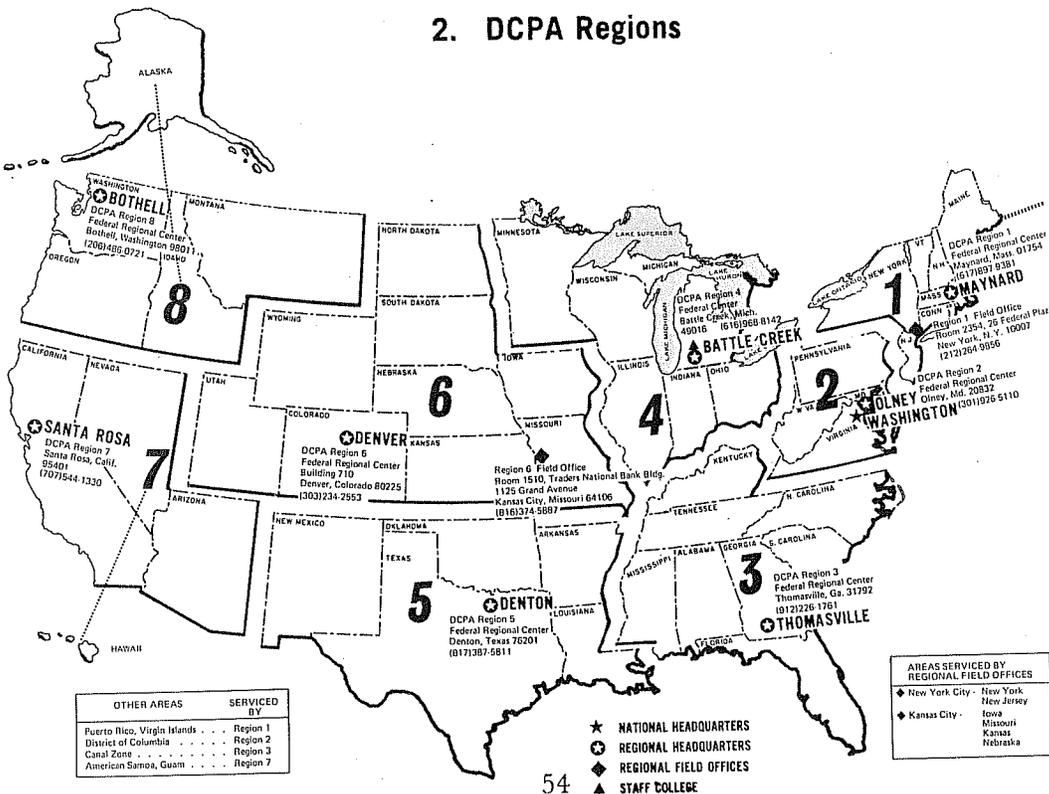
• 5 of the 54 State-level, and 128 of the 6,438 local program area civil preparedness organization staffs were fully trained.

# CHARTS AND MAPS

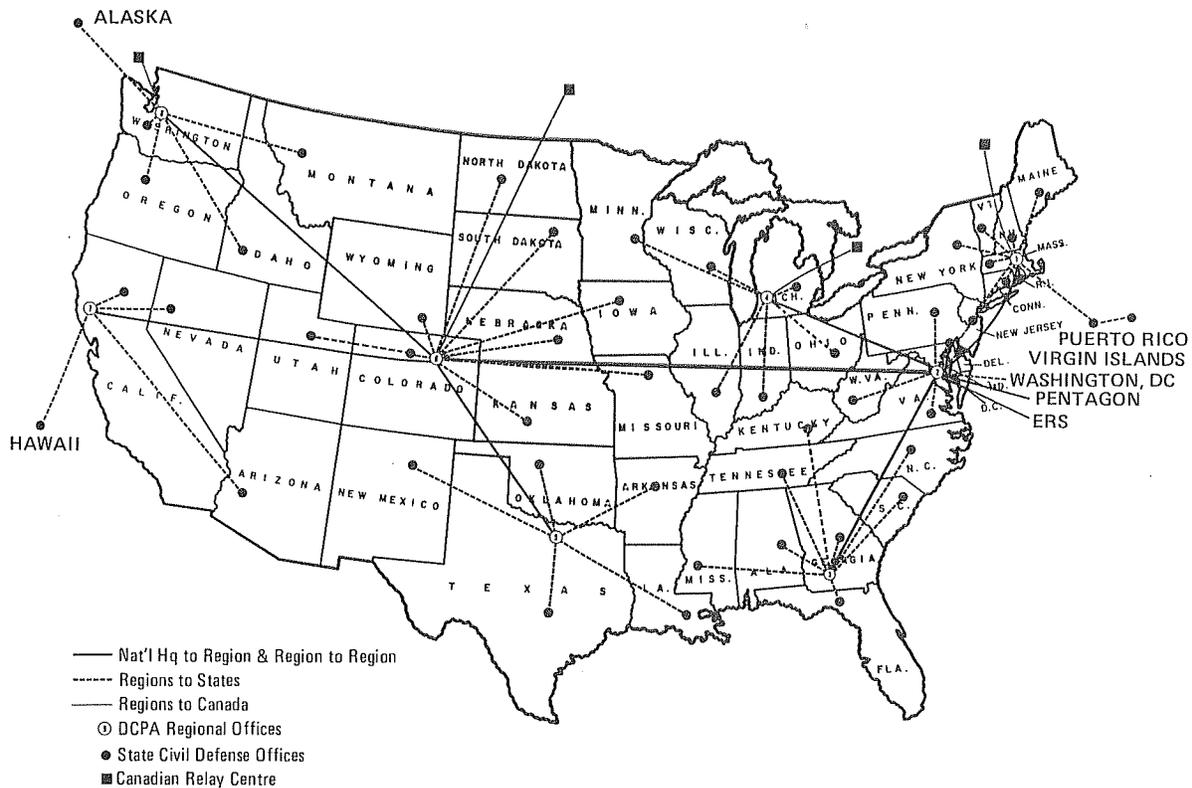
# 1. DCPA Organization Chart



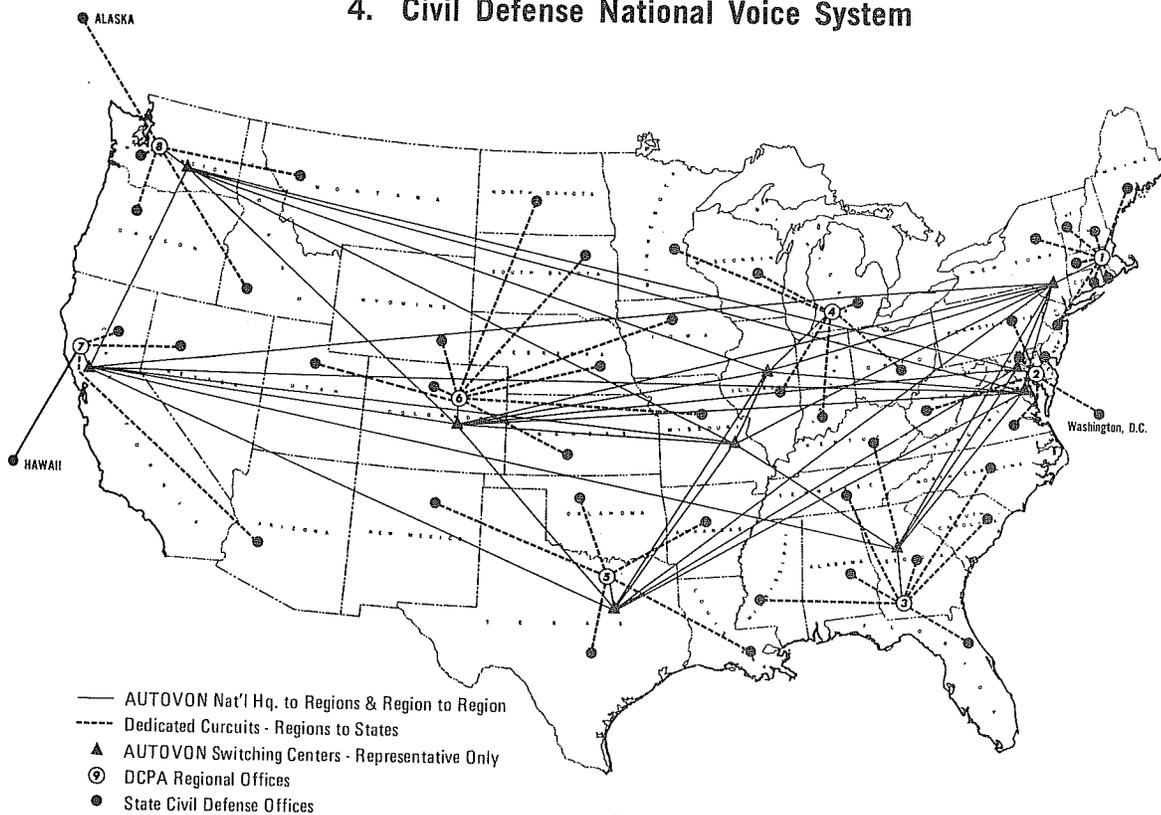
# 2. DCPA Regions



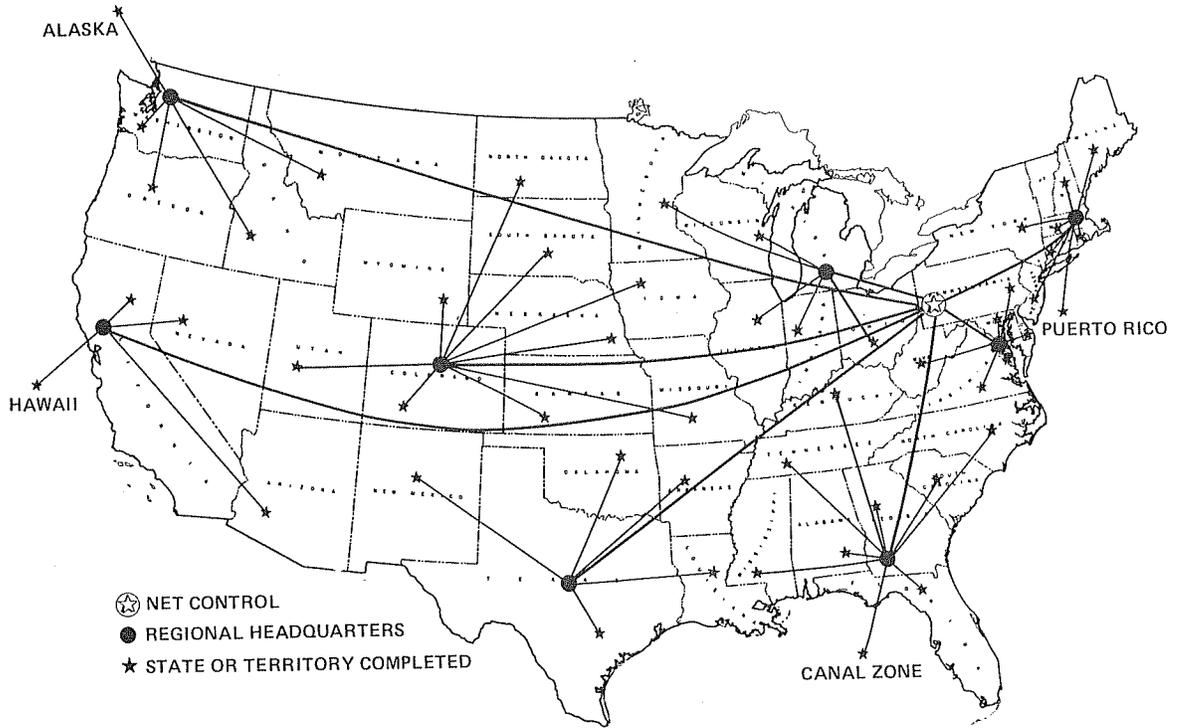
### 3. Civil Defense National Teletype System



### 4. Civil Defense National Voice System



## 5. Civil Defense National Radio System



## 6. DCPA National Warning System

