DOCUMENT RESUME

03079 - [A2213334]

Civil Defense: Are Federal, State, and Local Governments Prepared for Nuclear Attack? LCD-76-464; B-167790. August 8, 1977. 67 pp. + 4 appendices (10 pp.).

Report to the Congress; by Elmer B. Staats, Comptroller General.

Issue Area: Intergovernmental Relations and Revenue Sharing: Federal, State, Area-wide, and Local Coordination (402); Facilities and Material Management (700); Military Preparedness Plans (800).
Contact: Logistics and Communications Div.
Budget Function: National Defense: Defense-related Activities (054).
Organization Concerned: Department of Defense; Department of Housing and Urban Development; General Services Administration.
Congressional Relevance: House Committee on Armed Services; Senate Committee on Armed Services; Congress.
Authority: Federal Civil Defense Act of 1950 (P.L. 81-920). Disaster Relief Act of 1974. Executive Order 11490.

Civil Defense in the United States is shared among all levels of government and needs to be better planned and coordinated. Although progress has been made in setting priorities, more should be done to assure survival and recovery following a nuclear attack. Findings/Conclusions: The United States lacks a comprehensive civil defense policy, and civil defense in the United States has not been a high-priority or high-dollar program. This is partially attributable to the Federal Civil Defense Act which made Federal, State, and local governments jointly responsible for civil defense. Recommendations: The Administrator of General Services should direct the Federal Preparedness Agency to more closely coordinate with the Defense Civil Preparedness Agency in civil defense planning. Emphasis should be given to the identification and completion of all Federal Regional Centers and of Federal agencies' plans for using the centers. The Secretary of Defense should direct the Defense Civil Preparedness Agency to: review State emergency operating plans for nuclear attack more thoroughly before providing financial assistance and spot check local plans to be sure that they meet each community's needs; eliminate inconsistencies in plans for immediate-response use of shelters; place more emphasis on relocation planning based upon the total geographical area as opposed to evacuation of cities within the area; and encourage communities to participate in the onsite assistance program by emphasizing the benefits that can result and follow up on the status of onsite assistance recommendations. The Congress should enact legislation which would allow graduated Federal funding according to an area's expected risk, population, and national civil preparedness needs. (SC)

REPORT TO THE CONGRESS

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

Civil Defense: Are Federal, State, And Local Governments Prepared For Nuclear Attack?

Department of Defense
General Services Administration
Department of
Housing and Urban Development

Possibilities for surviving nuclear attack and the costs of various survival alternatives require a greater public discussion.

Although preparations for nuclear attack have improved as a result of Federal emphasis on likely targets, more could be done; particularly to prepare for the recovery of industrial, agricultural, and government operations after such an attack.

Civil defense in the United States is shared among all levels of government and needs to be better planned and coordinated. Although progress has been made in setting priorities, more should be done to assure survival and recovery following a nuclear attack.

LCD-76-464

AUGUST 8, 1977

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-167790

To the President of the Senate and the
Speaker of the House of Representatives

This report reviews the U.S. civil defense program, discusses the need for a more defined national policy on civil defense, and makes recommendations for improving the program's effectiveness.

We made this review because of the increasing congressional interest in the U.S. civil defense posture and in the Federal organizational structure for preparedness.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Copies of this report are being sent to the Director, Office of Management and Budget; the Secretary of Defense; the Secretary of Housing and Urban Development; and the Administrator of General Services.

Comptroller General
of the United States

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

CIVIL DEFENSE: ARE FEDERAL, STATE, AND LOCAL GOVERNMENTS PREPARED FOR NUCLEAR ATTACK?

D I G E S T

The United States lacks a comprehensive civil defense policy. Yet it is vital that we overcome obstacles to meeting and surviving a nuclear attack.

Civil defense in the United States has not been a high-priority or high-dollar program. The present situation can be traced in part to the Federal Civil Defense Act, as amended in 1958. This act made Federal, State, and local governments jointly responsible for civil defense. This joint responsibility had a dual effect--all levels of government were involved in civil defense efforts, but these efforts were weakened as a result of State and local government disagreement and disinterest in nationally set goals concerning nuclear preparedness and because of the program's low priority.

Federal-State and Federal-local matching funds have not created the impetus for a large-scale civil defense program because the Government can only encourage, not mandate, State and local participation. The question thus becomes: Can a civil defense program, based on voluntary State and local participation, be fully effective? The need for such a program could be justified by its potential life-saving capabilities, if for no other reason.

The nature of the civil defense problem has changed since the original legislation in 1950 and the subsequent executive pronouncements which established the present policy. Various studies suggest that in spite of the growing numbers and lethal power of nuclear weapons, possibilities for survival are greater than has been generally believed, provided a civil defense program equal to the potential threat is established.

The various conflicting views regarding the ability of the government, industry, and agriculture to survive a nuclear attack, need to be fully examined by all involved. This is a prerequisite for determining whether or not a strong civil defense program could instill public confidence in nuclear age survival.

Many Federal agencies, as well as State and local governments, have preparedness responsibilities. GAO's review concentrates on

--the Defense Civil Preparedness Agency--Department of Defense;

--the Federal Preparedness Agency--General Services Administration; and

--the Federal Disaster Assistance Administration--Department of Housing and Urban Development.

These and other planners and administrators have faced dissension, uncertainty, and modest budgets in their civil defense efforts.

THE CURRENT CIVIL DEFENSE PROGRAM

Based on the assumption that survival is possible, the current program provides for a Federal, State, and local structure to plan and carry out emergency operations, such as movement to fallout shelters, warning before and communications after attack, continuity of government, damage assessment, and surviving resource allocations.

More recently, on the premise that some advance warning time of attack may be possible, plans are being developed for evacuating the population to "safe" areas.

Civil defense planners have had to base the program on assumptions because of uncertainties regarding the effects of nuclear attack and survival potentials. Since assumptions change as weapons systems' research and

development continues and perceptions of the world situation change, the emphasis and direction of civil defense planning also changes.

Current planning assumes that areas near key military installations and large urban-industrial complexes would be vulnerable to all nuclear weapon effects. Direct hits on these areas would cause great destruction.

Current programs emphasize preparedness to meet attack and do not adequately consider (perhaps because of funding constraints) preparedness for recovery following attack. Although industrial and agricultural survival and recovery have received little attention, continued production would greatly affect a war's outcome should hostilities continue after nuclear attack. Furthermore, most of the Nation's industrial facilities are located in areas likely to be destroyed by nuclear weapons' effects.

Recovery after nuclear attack also depends on continued government operations and coordination of emergency functions. Although the Government has made extensive plans for its own survival, some of these plans are outdated. State and local governments' plans for continued operations have received little emphasis. (See p. 25.)

Many studies have pointed out the potential life-saving capabilities of various civil defense programs. The Defense Civil Preparedness Agency bases its programs on studies indicating that an all-out attack would cause 125 million fatalities if no programs existed. If existing fallout shelters were used, the agency estimates that 30 million of these people could be saved. And if 70 percent of the high-risk population had time to move to safer areas and receive fallout protection, 100 million people could be saved.

THE DUAL-PURPOSE CONCEPT

The current civil defense program includes a State and local organizational structure for responding to and preparing for wartime and peacetime emergencies. The Defense Civil Preparedness Agency's legislative authority concerned preparedness only for attack. It began, however, to help State and local governments prepare for natural disasters in the 1970s when it recognized that governments would not help fund systems which prepared only for nuclear attack.

This dual-purpose concept raises the question of whether civil defense is a peacetime or wartime function. State and local organizations have concentrated primarily on natural disaster and similar emergency preparedness, while attack preparedness has been secondary. (See p. 26.) From a practical standpoint, the dual-purpose concept remains the best means of developing the State and local organizational structure. In addition, experience acquired during natural disasters aids in developing nuclear survival capabilities.

CIVIL DEFENSE IN OTHER NATIONS

According to informed sources, the Soviet Union spends 8 to 15 times more on civil defense than the United States. Reportedly, the Soviet Union:

--Has extensive evacuation plans.

--Requires three-fourths of all new industries to build factories in small or medium-sized towns.

--Protects some essential production facilities from the effects of a nuclear blast.

--Has compulsory civil defense training at schools, factories, and residential buildings.

--Has organized its civil defense personnel around cadres of professional military personnel.

--Has constructed underground shelters, including some in subway systems, which have blast resistance.

Switzerland's civil defense program costs $3 to $5 a person--about 10 times the U.S. cost. Training is prescribed by law; exercises often are jointly conducted with the Swiss army militia. All new buildings, including homes and apartments, must provide protective shelter for the occupants. Private owners receive subsidies of at least 70 percent of the shelter cost. Blast shelters are constructed in tunnels and elsewhere.

In West Germany, high priority is given to training the civil defense staff; training is also offered to the public. Shelters are located primarily in homes and large buildings, such as schools and hotels. Cities located near military installations or having populations of 50,000 must have blast-protected shelters. Evacuation from some densely populated cities has been planned.

In Denmark, the civil defense organization includes Federal mobile forces (uniformed but nonmilitary) and local and self-protection groups composed of civil servants, volunteers, and active and inactive conscripts. Standards for shelters are set nationally, and local civil defense agencies are responsible for the shelters.

In Sweden, civil defense is an administrative and operational corps augmented by conscripts and is closely linked to the armed forces. Shelter construction is mandatory at the municipal level and above. Evacuation is considered secondary to shelters, but it is planned.

RECOMMENDATIONS

The Administrator of General Services should direct the Federal Preparedness Agency to more closely coordinate with the Defense Civil Preparedness Agency in civil defense planning. Emphasis should be given to the identification and completion of all Federal Regional Centers and of Federal agencies' plans for using the centers.

The Secretary of Defense should direct the Defense Civil Preparedness Agency to:

--Review State emergency operating plans for nuclear attack more thoroughly before providing financial assistance and spot check local plans to be sure that they meet each community's needs.

--Eliminate inconsistencies in plans for immediate-response use of shelters, as outlined on page 42.

--Place more emphasis on relocation planning based upon the total geographical area as opposed to evacuation of cities within the area.

--Encourage communities to participate in the onsite assistance program by emphasizing the benefits that can result, and follow up on the status of onsite assistance recommendations.

AGENCY COMMENTS AND GAO EVALUATION

The Department of Defense and the General Services Administration agree that they should maintain closer coordination. Defense is concerned about the completion and use of the Federal Regional Centers. General Services believes that the major problem is lack of funding rather than lack of agency coordination. Although the agencies are working together on several projects, they need to improve their efforts, particularly in the areas of continuity-of-government planning, coordination of plans, and proposed use of the centers.

Regarding review of State emergency operating plans, Defense stated that a system for determining the currency of local emergency operations plans has been implemented. This system was not operational at the time of GAO's review. Such a system should help the civil defense program. (See p. 29.)

Defense recognizes that there is a delay in licensing and marking shelters, preparing plans for crisis stocking of shelters, and updating community shelter plans. However, the agency believes withholding of financial assistance would hurt the program, not improve it. GAO believes it is difficult to continue a national program if States are permitted to ignore a vital segment of such a program.

The Department of Defense stated that preliminary findings in the Northeast Corridor study indicate a need for regional planning. A comprehensive regional plan could take several years to develop. If relocation planning is to be a viable alternative, greater emphasis must be placed on a total plan for each region.

The primary limitation to conducting community projects is staffing restrictions at the State and regional levels. Defense emphasizes increased efforts in this area as far as resources will permit.

MATTERS FOR CONGRESSIONAL CONSIDERATION

The Congress should enact legislation which would allow graduated Federal funding according to an area's expected risk, population, and national civil preparedness needs. Such legislation should be enacted because the Defense Civil Preparedness Agency is having difficulty in providing funds for national priorities due to its limited funding levels.

The General Services Administration stated that the Congress' position on Federal support for peacetime emergency preparedness is still unclear. It believes legislative clarification of this issue is necessary.

The Department of Defense believes a discretionary sliding-scale matching fund program could help encourage a greater civil defense effort in high-risk nuclear target areas.

GAO encourages both congressional consideration of corrective legislative action and public debate of the civil defense issue at all levels of government, including State and local forums. (See ch. 7.)

Contents

ABBREVIATIONS

DCPA	Defense Civil Preparedness Agency
DOD	Department of Defense
FDAA	Federal Disaster Assistance Administration
FPA	Federal Preparedness Agency
GAO	General Accounting Office
GSA	General Services Administration
HUD	Department of Housing and Urban Development

CHAPTER 1

HISTORY AND OBJECTIVES OF CIVIL DEFENSE

The term "civil defense" often brings to mind black-and-yellow shelter signs, helmets, and home fallout shelters. But civil defense--or "civil preparedness," as it is often called today--means much more. It encompasses all that is being done or planned to save lives, protect property, manage resources, and make sure the Nation survives and recovers from an enemy attack.

HISTORY

Before World War I, military defense was synonymous with civil defense. The need for a separate civil defense program began to surface when aircraft made it possible to attack civilians without involving the defending troops. In both world wars, volunteer civil defense units were organized in States and communities.

In 1950, after the Soviet Union's atomic explosion, the Office of the Chief Executive established the Office of Defense Mobilization to direct and coordinate all nonmilitary mobilization functions. Also, the Federal Civil Defense Act of 1950 (Public Law 81-920) established the Federal Civil Defense Administration as an independent agency to develop protection for the civilian population. This act remains the basic authority of today's civil defense organization.

Since 1950, nonmilitary preparedness agencies have undergone several organizational changes, as illustrated on page 3. The civil defense operating function was first placed in the Department of Defense (DOD) in 1961 and remains there today under the Defense Civil Preparedness Agency (DCPA). From 1961 to 1973, the Office of Emergency Preparedness (known as the Office of Emergency Planning in 1961-68) in the Office of the Chief Executive, carried out the policy and coordinating functions. This office was split in 1973 to form the Office of Preparedness in the General Services Administration (GSA) and the Federal Disaster Assistance Administration (FDAA) in the Department of Housing and Urban Development (HUD). The Office of Preparedness was renamed the Federal Preparedness Agency (FPA) in July 1975.

AGENCY RESPONSIBILITIES

According to the Federal Civil Defense Act, DCPA is responsible for plans and programs to protect life and property

in the event of an attack. By Executive Order 10952, its responsibilities include:

--A fallout shelter program.

--A chemical, biological, and radiological warfare defense program.

--Warning and communications systems for use in both an attack and a natural disaster. 1/

--A system for assisting State and local governments after an attack.

--Development of State and local emergency capabilities.

--Programs for making financial contributions to the States.

--A system for assessing the damaged civilian resources after an attack.

--Arrangements for donating Federal surplus property to States.

The Federal Preparedness Agency also has a civil defense role; it sets broad policies for emergency preparedness programs and coordinates these programs throughout the Federal, State, and local governments. Some of its more specific responsibilities are:

--Plans for continuity of government, including relocation sites.

--Resource management and evaluation during an emergency.

--Coordination of the geographical dispersal of industrial facilities.

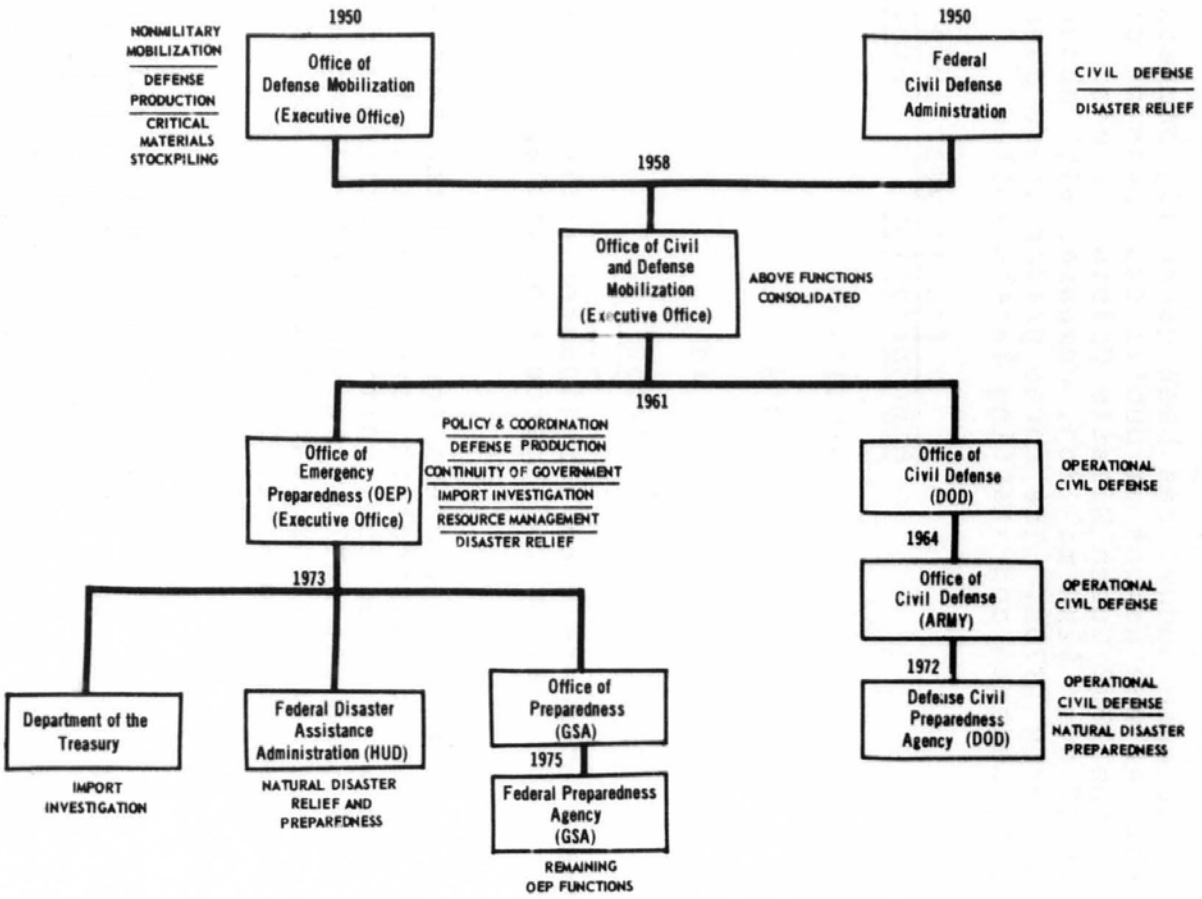
--Plans and programs for postattack recovery of the Nation.

The Federal Disaster Assistance Administration has no responsibility for attack preparedness. Under the Disaster

---

1/ The authority for natural disaster warning is contained in Executive Order 11795, based on the Disaster Relief Act of 1974.

EVOLUTION OF CIVIL PREPAREDNESS SINCE 1950



Relief Act of 1974, it provides financial relief to States and communities after the President has declared natural disasters. The act also authorizes this agency to provide grants to States for natural disaster preparedness planning. We have issued several reports on Federal disaster assistance in the past.

The civil defense budget has been generally decreasing over the years. At the height of public awareness of civil defense during the 1962 Cuban Missile Crisis, funding reached a high of over $200 million, compared with about $80 million in the early 1970s. The three preparedness agencies' fiscal year 1976 budgets and staffing levels follow.

	Fiscal year 1976	
	Appropriation	Staffing
	(millions)	
DCPA	$ 85	653
FPA	16	676
FDAA	a/150	161

a/Most of these funds are used for disaster relief; administrative costs are limited to 3 percent of the appropriated funds.

Both the Federal Preparedness Agency and the Federal Disaster Assistance Administration have offices in the 10 Federal regions; we visited their offices in Boston and San Francisco. DCPA does not follow the same Federal regional concept. It has eight regions, two of which we visited in Maynard, Massachusetts, and Santa Rosa, California.

THE PARTNERSHIP APPROACH

By law, DCPA shares its civil defense responsibility with the State and local governments. The Agency works with the States, Guam, Puerto Rico, the Virgin Islands, the District of Columbia, and through the States to the counties, cities, and local governments to help them cope with emergencies.

To help States and communities prepare for emergencies, DCPA provides matching funds for:

--Salaries and administrative expenses of civil preparedness employees.

--The design and construction of emergency operating centers, which contain the communications equipment needed to control operations in an emergency.

--The purchase of emergency equipment--such as warning, communications, and rescue.

--Maintenance of communications and warning systems.

The Defense Civil Preparedness Agency also provides Federal surplus and excess property, radiological monitoring equipment, and onsite assistance to States and communities. In addition, it sponsors training courses and pays for the maintenance of radiological equipment through State contracts.

Assistance from many other Federal agencies is also available to States and communities in improving their emergency capabilities. Some examples are:

--The National Weather Service assists in natural disaster analysis and public warning procedures.

--The Law Enforcement Assistance Administration provides support for emergency communications systems.

--The Department of Health, Education, and Welfare assists in developing emergency medical services and hospital disaster plans.

--The U.S. Army Corps of Engineers helps to develop flood control plans.

Our review concentrated on DCPA's assistance to Arizona, California, Massachusetts, Nevada, New Hampshire, and New York.

CHAPTER 2

CIVIL DEFENSE: A LOOK AT THE ISSUES

Because civil defense in the United States has not been a high-priority or high-dollar program, we believe it is important to analyze the civil defense program in perspective of the controversial issues affecting the program. We have studied existing and past programs to gain insight into the issues and have attempted to summarize these insights in this chapter.

More than a summary, however, needs to be done. Our work suggests that the civil defense effort--a small effort which seems to imply that civil defense is unimportant as a national priority and little can be done to survive a nuclear attack--is not a good indicator of available policy alternatives. We believe the possibilities for surviving a nuclear attack and the costs of various survival alternatives should be publicized and debated as a basis for forming a more comprehensive policy.

We intend to use the issues discussed in this chapter as a basis for a more detailed future study of the policy alternatives in civil defense.

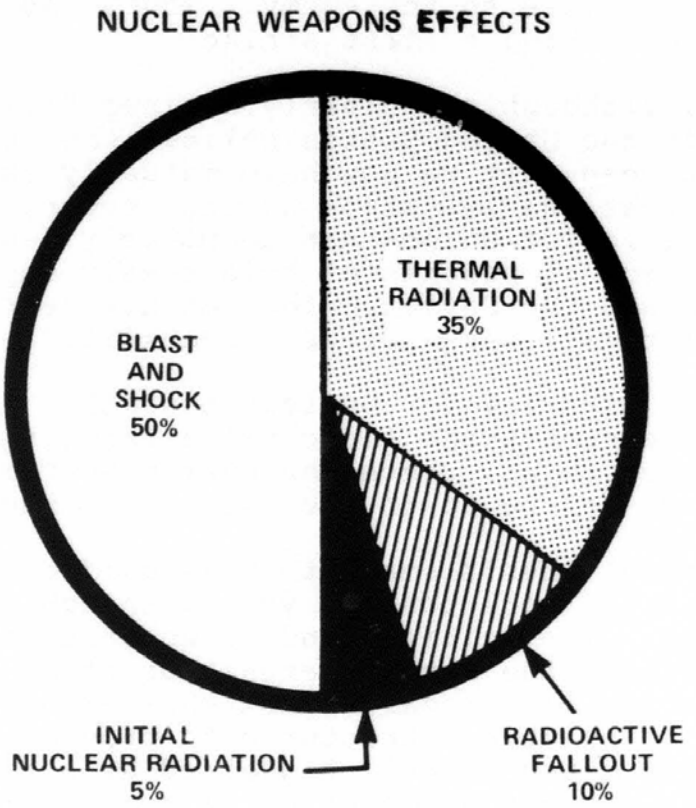
In this report, therefore, we are (1) attempting to identify the major issues, (2) raising questions about either the validity or vagueness of various assumptions involved in the issues, and (3) evaluating the present civil defense program, taking into consideration the lack of clarity on the issues.

THE COMPONENTS OF CIVIL DEFENSE--A SUMMARY

The Federal Civil Defense Act of 1950 recognized the potential danger of atomic attack and provided for protecting life and property from that danger. Subsequently, nuclear weapons were developed. Besides a full-scale nuclear exchange between world powers, we now face the possibilities of nuclear attacks by terrorist organizations, nuclear-armed guerrilla warfare, and accidental detonations.

Nuclear attack is one of the more difficult contingencies to prepare for because a full-scale attack has never occurred. Except for the atomic strikes on Japan, the world has had no actual experience with a nuclear attack. However, although the nature of an attack cannot be specifically predicted, the

general effects of nuclear weapons are known. It is estimated that the effects of a typical nuclear weapon would be distributed as shown below.



The blast, thermal radiation (heat), and initial radiation--direct effects--would occur almost instantaneously. The area destroyed as a result of the explosion depends on the size of the weapon and the height of the burst, and can be fairly accurately predicted, as illustrated on page 9 for a 20-megaton burst. Radioactive fallout, however, depends on so many variables that the areas affected and the intensity of radiation in those areas cannot be accurately estimated. The variables include the type, size, and detonation of the weapon; the wind patterns; and the weather conditions.

The strategic deterrence and nuclear overkill thesis

The United States policy on civil defense is, among other things, influenced by its view of the strategic deterrence of its triad of nuclear forces--land-based

intercontinental ballistic missiles, sea-launched ballistic missiles, and manned bombers (e.g., the B-52 force). The "deterrence" factor derives from the ability of this force to absorb a first strike from an enemy and still have the capacity to retaliate with a level of force so destructive as to be unacceptable to the enemy. Thus, the enemy is "deterred" from making a first strike.

Somehow, although not clearly defined from our studies, many people in the United States believe the concept of deterrence to mean that we now have mutually assured destruction, that the two major nuclear powers--the United States and the Soviet Union--can completely destroy one another. Indeed, proponents of this thesis say that the United States and the Soviet Union can now destroy each other several times over--nuclear "overkill."

Given the capacity for nuclear overkill, logic then dictates that expenditures for civil defense against nuclear attack are superfluous, since whatever preparedness is created will be destroyed in the nuclear exchange.

This general thesis seems to have guided the civil defense effort for more than 15 years, though not in explicit terms. The initial funds requested for civil defense, following the Soviet detonation of an atomic bomb in 1949, were for large-scale blast shelter surveys and for modification of existing structures to provide blast protection. These measures were requested at a time when the fallout threat was not as great nor a matter of widespread public knowledge, and when the general concept of shelter was that it should protect against immediate atomic effects--blast, heat, and shock.

Following the Soviet detonation of a thermonuclear device and the recognition of the fallout threat, the U.S. outlook on civil defense changed. While shelters against atomic blast could be built, it was felt that shelters against nuclear blast were fruitless and/or expensive, and would not deter a nuclear attack; only nuclear retaliatory strength would deter the enemy. These views and their impact on preparedness policy are reflected in the President's message to the Congress on May 25, 1961. The President stated:

> "This administration has been looking hard at exactly what civil defense can and cannot do. It cannot be obtained cheaply. It cannot give an assurance of blast protection that will be

intercontinental ballistic missiles, sea-launched ballistic missiles, and manned bombers (e.g., the B-52 force). The "deterrence" factor derives from the ability of this force to absorb a first strike from an enemy and still have the capacity to retaliate with a level of force so destructive as to be unacceptable to the enemy. Thus, the enemy is "deterred" from making a first strike.

Somehow, although not clearly defined from our studies, many people in the United States believe the concept of deterrence to mean that we now have mutually assured destruction, that the two major nuclear powers--the United States and the Soviet Union--can completely destroy one another. Indeed, proponents of this thesis say that the United States and the Soviet Union can now destroy each other several times over--nuclear "overkill."

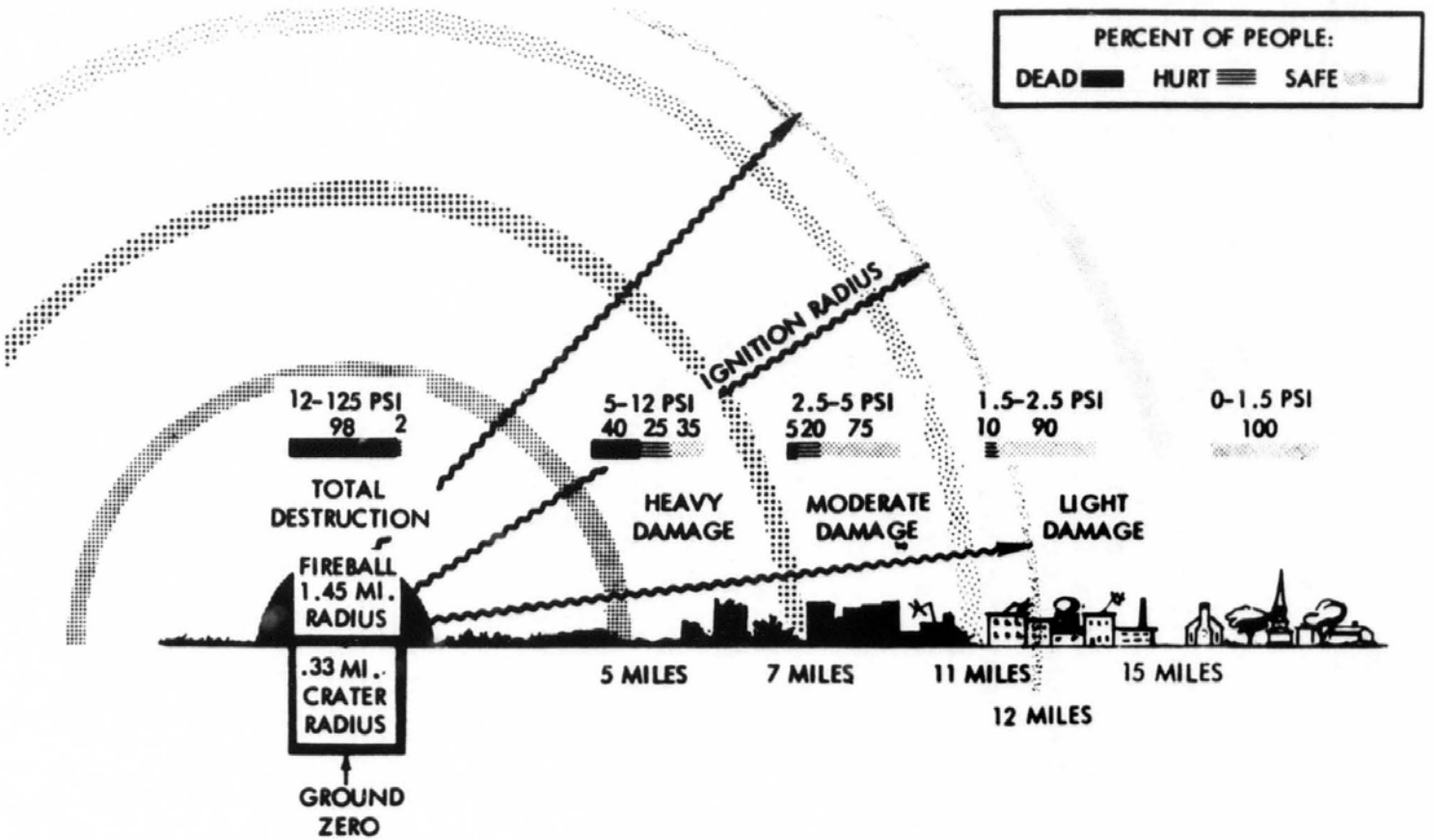
Given the capacity for nuclear overkill, logic then dictates that expenditures for civil defense against nuclear attack are superfluous, since whatever preparedness is created will be destroyed in the nuclear exchange.

This general thesis seems to have guided the civil defense effort for more than 15 years, though not in explicit terms. The initial funds requested for civil defense, following the Soviet detonation of an atomic bomb in 1949, were for large-scale blast shelter surveys and for modification of existing structures to provide blast protection. These measures were requested at a time when the fallout threat was not as great nor a matter of widespread public knowledge, and when the general concept of shelter was that it should protect against immediate atomic effects--blast, heat, and shock.

Following the Soviet detonation of a thermonuclear device and the recognition of the fallout threat, the U.S. outlook on civil defense changed. While shelters against atomic blast could be built, it was felt that shelters against nuclear blast were fruitless and/or expensive, and would not deter a nuclear attack; only nuclear retaliatory strength would deter the enemy. These views and their impact on preparedness policy are reflected in the President's message to the Congress on May 25, 1961. The President stated:

> "This administration has been looking hard at exactly what civil defense can and cannot do. It cannot be obtained cheaply. It cannot give an assurance of blast protection that will be

EFFECTS OF A 20 MEGATON BLAST



If burst is elevated to altitude maximizing reach of blast damage:
"Moderate Damage" from blast is extended from 11 to 17 miles
"Ignition Radius" (ignites newspaper) is extended from 12 to 17 miles

PSI—pounds per square inch

proof against surprise attack or guaranteed against obsolescence or destruction. And it cannot deter a nuclear attack."

"We will deter an enemy from making a nuclear attack only if our retaliatory power is so strong and so invulnerable that he knows he would be destroyed by our response. If we have that strength, civil defense is not needed to deter an attack. If we should ever lack it, civil defense would not be an adequate substitute."

The President further stated that while this deterrent concept assumed rational calculations, there still remained the possibility of an irrational attack, a miscalculation, an accidental war, or a war of escalation which could neither be foreseen nor deterred. He also said:

"It is on this basis that civil defense can be readily justifiable - as insurance for the civilian population in case of an enemy miscalculation. It is insurance we trust will never be needed - but insurance which we could never forgive ourselves for foregoing in the event of catastrophe."

As a result, blast shelters were deemphasized and shelters for protection from fallout were assumed to be the most feasible life-saving protection against nuclear attack.

Potential strengths and weaknesses in the deterrence and mutually-assured destruction theses

An obvious weakness in the deterrence theory was recognized by the President in his 1961 statement when he mentioned the possibilities of an irrational attack, a miscalculation, an accidental war, or a war of escalation. We have had irrational leaders plunge the world into war before. And another factor not present in 1961 is the imminence of nuclear proliferation to a number of countries, which further increases the possibility of nuclear weapons being used.

A weakness not so clear is that the deterrence and overkill thesis may not be necessarily shared by our major potential adversary--the Soviet Union. Those who feel that the Soviet Union has never thought of nuclear war as unthinkable believe the Soviets are preparing for the possibility of such

a war and assume they will win it through a combination of nuclear first strike or retaliatory strike capability; population, agricultural, and industrial survival; and strong conventional forces for poststrike military capabilities. Some evidence in support of this thesis can be seen in the level and type of Soviet civil defense activities summarized later.

A sometimes cited strength in the deterrence thesis is that the uncertainty of the results of an all-out nuclear war would prevent such a war. This position holds that deterrence arises from the possibility that, given large-scale nuclear explosions, the environment, including that of the agressor country, would be destroyed by the secondary effects of the explosions.

On the other hand, DCPA studies show that even in an all-out attack, about 80 million Americans would survive while approximately 125 million Americans would be killed if no attempt at all were made at civil defense.

The surprise attack, no warning thesis

Some believe that if a nuclear attack is to be a success, it will have to be a surprise attack. In this view, the only advance warning would be detection by our surveillance mechanisms that the agressor rockets are lifting off their launching sites. Such a concept establishes the warning time as the 15 to 20 minutes between lift-off and detonation. Thus, the population would not have time to take shelter even if it were available.

A contrasting view and one gaining in prominence is that a nuclear attack will not be a surprise. This view holds that advance warning time of 2 to 3 days can generally be expected.

The strategic value of civil defense thesis

There are those who argue that since civil defense does not help avoid or win a war, civil defense funds would be better spent on military defense. Complementary to this line of thought are views that expanding civil defense might accelerate the arms race and that taking civil actions during a crisis might be construed as a belligerent act and trigger an enemy attack.

Arguing against this thesis are a growing number of analysts who believe that a comprehensive civil defense posture

is in itself a strategic deterrent. These analysts suggest that any increase in the survival quotient of both humans and industry would also increase the destruction needed for a "successful" first strike, thus tending to discourage making the first strike. They point also to the extensive Soviet civil defense efforts as reducing the potential effects of a U.S. retaliatory strike.

Others argue, however, that if a substantial part of population and industry can be expected to survive, then the mutually-assured destruction concept is eroded.

CIVIL DEFENSE IN OTHER NATIONS

Much has been written recently about the nature and effectiveness of the Soviet Union's civil defense program and its impact on U.S.-U.S.S.R. deterrence. According to various sources, the Soviet Union spends 8 to 15 times more on civil defense than does the United States. It is also reported that the Soviet Union:

--Has had extensive evacuation plans for several years.

--Requires three-fourths of all new industries to build their factories in small- and medium-sized towns; and protects some essential production facilities from the effects of a nuclear blast.

--Has compulsory civil defense training at schools (beginning in the second grade), factories, and residential buildings.

--Has organized its civil defense personnel around cadres of professional military personnel.

--Has constructed underground shelters, including some in subway systems, which have blast resistance.

Civil defense capabilities have been developed in other countries. According to the Defense Civil Preparedness Agency, Switzerland has the best system, at a cost of $3 to $5 a person--about 10 times the U.S. cost for each person. In Switzerland, training is prescribed by law, and exercises are often conducted jointly with the Swiss army militia. All new buildings, including homes and apartment houses, must provide protective shelter for the occupants, and private owners receive subsidies of at least 70 percent of the shelter cost. Also, blast shelters are constructed in tunnels and elsewhere. Because of its geographical position,

Switzerland does not plan on large-scale evacuation, but does plan to reduce the density of urban centers by about 50 percent. Alsc, Swiss communications are considered among the best in Europe.

Other countries' civil defense systems, based on DCPA information are summarized below.

--In the Federal Republic of Germany, training the civil defense staff is a high priority and training is offered to the public. Shelters are primarily in homes and large buildings, such as schools and hotels. Cities located near military installations or having populations of 50,000 must provide blast protection in shelters. Evacuation from certain densely populated cities has been planned.

--In Denmark, the civil defense organization includes Federal mobile forces (uniformed but nonmilitary) and local and self-protection groups composed of civil servants, volunteers, and active and inactive conscripts. Standards for shelters are set nationally, and local civil defense agencies are responsible for the shelters. The use of mobile support, rather than evacuation, is stressed.

--Swedish civil defense is organized as an administrative and operational corps augmented by conscripts and is closely linked to the armed forces. Shelter construction is mandatory at the municipality level and above. Standard shelters are built to withstand certain blast pressures and shelters dug into rocks at depths of 45 to 50 feet can withstand anything except a direct hit. Evacuation is considered secondary to shelters, but it is planned; people evacuated must make arrangements for their own housing and support.

THE CURRENT U.S. CIVIL DEFENSE PROGRAM

The planners and administrators of U.S. civil defense have had to direct their efforts in the face of the dissension and uncertainty described above and with modest budgets.

Assuming that some survival is possible, the current civil defense program provides for a Federal, State, and local structure to plan for and carry out emergency operations, such as movement of people to fallout shelters,

warning and postattack communications, continuity of government, and damage assessment. In 1972 it was decided that civil defense should continue at its then-current level and that dual-purpose preparedness should be emphasized. More recently, on the premise that some preattack warning time may be possible, plans are being developed for evacuating the population to "safe" areas. Within the monetary constraints and uncertainties, we believe this is a reasonable direction of effort.

Civil defense planners have had to base the program on certain assumptions because of the uncertainties and lack of experience in nuclear effects and survival capabilities. Because assumptions change as weapons systems' research and development continues and perceptions of the world situation change, the emphasis and goals of the civil defense program also change.

Current planning assumes that areas near key military installations and large urban-industrial complexes would be at risk to all nuclear weapon effects. Direct hits on these areas would cause extensive destruction. A study prepared for DCPA in 1975 estimated that 80 percent of the target-area population would be killed and no target-area residents would escape injury. In nontarget areas, only 2 percent of the people would be killed, 58 percent would receive varying radiation dosages, and 40 percent would be unaffected.

The current programs are directed almost entirely toward preattack preparedness and do not adequately consider (or may not be adequately funded to consider the need for) postattack preparedness. Industrial survival and recovery, for example, have received little attention in the United States, even though continued industrial production would be critical to the outcome of a war should hostilities continue after the nuclear attack.

In addition, industrial production must continue to support the homefront economy to enable rapid recovery from the destruction of a nuclear attack. But most of the Nation's industrial facilities are generally located in the high-risk areas, where they are likely to suffer from nuclear weapons' direct effects. No requirements or incentives exist to make sure that essential industries survive.

Postattack recovery also depends on continued government operations and coordination of emergency functions. Although

the Government has made extensive plans for its own survival, some of these plans are outdated and plans for continued operations of the State and local governments have received little emphasis. (See p. 25.)

Some additional factors influencing civil preparedness thinking and actions are summarized below.

For those people not killed by the direct effects, protection against fallout can be provided simply by shielding people with sufficient material. For example, a 2-foot concrete barrier can reduce radioactive fallout to one-thousandth of the outside radiation intensity. Fallout shelters are therefore considered to be effective and important for saving the lives of those who survive the heat and blast effects.

Radiation levels are measured in roentgens, and exposure to less than 200 roentgens is considered relatively safe. Exposure to 4,000 roentgens would cause death within 2 or 3 days. But if people were in shelters meeting the Defense Civil Preparedness Agency protection standard of 40, 1/ they would be exposed to only one-fortieth of 4,000, or 100 roetgens, and most of them would live. For private residences, this standard could be met by various means; for instance, a 12-inch layer of dirt on the roof and banking mounds of dirt at ground level. 2/

Many studies made in the past have pointed out the potential life-saving capability of various civil defense programs. DCPA bases its programs on studies indicating that an all-out attack would cause 125 million fatalities if no programs existed. If existing fallout shelters were used, DCPA estimates 30 million of these people would be saved. And if 70 percent of the high-risk population had time to move to safer areas and receive fallout protection, 100 million people would be saved.

THE DUAL-PURPOSE CONCEPT

The current civil defense program includes a State and local organizational structure for responding to and preparing

---

1/A shelter with a protection factor of 40 exposes its occupants to one-fortieth as much radiation as unprotected people are exposed to.

2/This is presented only as an example. The structural problems, the retention of dirt on the average inclined American roof, and getting the dirt up there are among the obvious problems.

for emergencies, both wartime and peacetime. Some of the organizations receive Federal matching funds, and others are volunteer groups. Although some of the organizations may have been formed on their own initiative, DCPA's concept of dual-purpose preparedness helped to promote their formation. The concept also promoted a sense of pride by the communities as they joined the Federal Government in a nationwide preparedness effort.

The Defense Civil Preparedness Agency's legislative authority concerned preparedness only for attack, but it began to help State and local governments also prepare for natural disasters in the 1970s. DCPA thus recognized that the State and local governments were reluctant to fund nuclear attack preparedness systems, and that emergency systems, which could be used both in peacetime emergencies and in nuclear attack, were more economical and more easily accepted by State and local governments.

The dual-purpose concept has raised the question of whether civil defense is properly a peacetime or wartime function. State and local organizations have concentrated primarily on natural disaster preparedness and other peacetime emergencies, and nuclear attack preparedness has been little more than a side benefit. The Defense Department recently considered limiting DCPA activities to those which contribute only to nuclear preparedness. But many States and communities are not willing to fund nuclear preparedness activities unless the activities result in more immediate preparedness benefits. From a practical standpoint, then, we believe the dual-purpose concept remains the best means of developing the State and local organizational structure. In addition, we believe that exercising plans and equipment during natural disasters is an effective way to develop nuclear survival capabilities.

In July 1976, the Congress amended the Federal Civil Defense Act of 1950 to allow the use of civil defense resources in assisting areas struck by natural disasters. The Congress also indicated its intent that civil defense resources be used to build a common base of preparedness for both nuclear attack and natural disasters.

Our discussions with many State and local officials suggest that the decreasing Federal budget indicates disinterest and lack of commitment from the Federal Government. But, like the Federal Government, State and local civil defense organizations compete with other programs for their own funding, as well as for their continued existence.

Another constraint stems partly from the Federal Civil Defense Act, as amended in 1958, which made the Federal, State, and local governments jointly responsible for civil defense. Although the joint responsibility has strengthened civil defense by involving the entire Nation in a cooperative effort, it also has weakened the program by allowing national goals and priorities to be frustrated by State or local disinterest, or by disagreement. As discussed later, the use of Federal-State and Federal-local matching funds has not provided for building national capabilities on a priority basis because the Government can only encourage State and local participation.

The question that needs to be addressed, in our opinion, is whether a civil defense program, based on voluntary State and local participation, can be fully effective.

OBSERVATIONS

The civil defense program is one of the many links in mobilization preparedness. The need for the program, in our opinion, can be justified by its potential life-saving capabilities if for no other reason.

But our study suggests that the United States has no comprehensive or clearly defined policy for civil defense. The lack of clear policy hampers fully effective action even within the budgetary constraints of existing programs. Subsequent to our review, the Secretary of Defense fiscal year 1978 Posture Statement to the Congress stated that the civil defense program is an element of U.S. deterrent policy and is designed primarily to enhance survival of the U.S. population. To improve our civil defense capability, we must update and improve the national fallout protection capability, accelerate contingency planning to develop an option for population relocation in a crisis, and enhance national readiness to respond to nuclear crisis situations.

We believe that the various conflicting views regarding the effects of nuclear attack and industrial and agricultural survivability need to be fully explored and debated within the executive branch, the Congress, and the State and local communities. Out of this debate should come a policy which provides clear guidance for the civil defense program.

Various studies also suggest that, in spite of the present numbers and lethality of nuclear weapons, survivability is greater than that which has been generally thought. The policy considerations should reflect conclusions regarding

survivability, the potential and cost of enhancing survivability, and procedures necessary beforehand to increase postattack recovery and preservation of our values.

During the 94th Congress, the Joint Committee on Defense Production conducted an extensive review of Federal programs, activities, and organizations concerned with nonmilitary emergency preparedness. The committee concluded that the fragmentation of the preparedness effort has hindered the local government's ability to perform its preparedness role. Based on their report findings, the committee proposed Senate bill 1209, 95th Congress which provides for consolidating the preparedness functions which the committee feels will increase the efficiency and coordination of DCPA, FPA, FDAA, the Office of Industrial Mobilization, and certain related parts of the General Services Administration.

Chapter 3 discussed the progress and problems of the civil defense program. In addition, chapter 7 presents some minimal options for improving the future program and for making civil defense a more comprehensive system.

CHAPTER 3

IS PREPAREDNESS PLANNING AND COORDINATION ADEQUATE?

Because planning is the first step in developing nationwide preparedness, it must be as effective and realistic as possible. Plans should cover operations in all phases of an emergency, from warning to recovery, and should be continually updated and coordinated among the organizations having emergency roles. Also, strong Federal leadership and guidance are needed to help States and communities properly develop their plans.

PLANNING AND COORDINATING AT THE FEDERAL LEVEL

The Federal Preparedness Agency is responsible for advising the President on planning and coordinating the total civil preparedness program. FPA's basic guidance, "The National Plan for Emergency Preparedness," dated December 1964, sets forth the general policies for national defense emergencies and describes the roles of Federal agencies, and State and local governments. Some of the planning assumptions on which the plan is based have changed since 1964. As of March 1977 the assumptions were being updated and coordinated with other Federal agencies.

In addition to its basic guidance, FPA provides annual guidance on emergency readiness to all Federal agencies and makes onsite reviews of selected agencies at both the headquarters and regional levels, to help them increase their readiness. FPA checks the effectiveness of agencies' emergency plans only at annual exercises; otherwise, it tries to make sure that the plans fall within its broad guidelines. Although DCPA and FDAA have major preparedness responsibilities, FPA told us it does not give any more attention to these agencies' plans and programs than it does to others. However, FPA's annual guidance to DCPA is somewhat more detailed than its guidance to other agencies and, in an effort to coordinate DCPA's relocation planning (see p. 38), FPA and DCPA formed a joint steering group in 1974.

The Federal Disaster Assistance Administration receives no special guidance from FPA. And because FDAA views itself as the only agency with natural disaster preparedness responsibilities, FDAA officials see little need to coordinate with either FPA or DCPA. But there is cooperation between FDAA

and DCPA during major natural disasters. Often, Defense Civil Preparedness Agency personnel help State personnel to monitor potential disasters from their emergency operating centers and assist in communicating disaster reports. If the disaster is large enough to warrant FDAA relief, FDAA often borrows DCPA personnel to help advise the people of disaster-struck communities about the relief available. This arrangement appears to benefit both FDAA and DCPA because it gives FDAA the extra personnel needed to manage disaster relief, and allows DCPA to exercise its communications and other systems, and to gain disaster experience which would be useful in a nuclear attack.

However, FDAA points out, in its comments to our report, that natural disaster planning alone will not achieve a civil defense posture for the Nation. This is especially true since fallout-protection and national-survival measures are absolutely basic to civil defense but are not the concern of planning for localized "natural" disasters. Thus, the dedication of civil defense personnel to localized disaster preparedness will not suffice for, and can dilute attention to, the more difficult and demanding preparedness for enemy attack.

PLANS FOR CONTINUED GOVERNMENT OPERATIONS

Executive Order 11490 assigns emergency functions to various Federal departments and agencies. For example, the Department of Transportation is to develop plans for regulating highway traffic and the Department of Agriculture is to develop plans for distributing food in an emergency. The Executive order states that all agencies having essential functions should have plans which cover, among other things: (1) succession to office, (2) emergency relocation sites, supported by communications and required services, (3) emergency action steps, and (4) protection of Government resources, facilities, and personnel. The Federal Preparedness Agency is responsible for providing guidance to agencies in developing these plans.

Federal agencies have been categorized according to the need for their services during an emergency. Category A agencies are those which have functions considered to be essential during the preattack, attack, and postattack periods. These agencies are to determine precisely which functions are essential. Also, FPA's guidance states that each category A agency should designate three teams to be activated in an emergency, the first team would stay at the

headquarters and the other teams would move to designated relocation facilities outside Washington, D.C. All three teams are to be prepared to carry out national-level essential functions from their locations.

To insure continued operations at the regional level, FPA uses a similar concept. Category A agencies are to designate two teams: one to stay at the regional office and the other to relocate to one of the Federal Regional Centers. FPA is responsible for designating the centers which house DCPA personnel during peacetime. Of DCPA's eight Federal Regional Centers, only six have been constructed underground to withstand nuclear weapons' direct effects. In addition, most Federal agencies have 10 regional offices, while DCPA has 8. Therefore, four Federal field complexes are without blast-protected facilities.

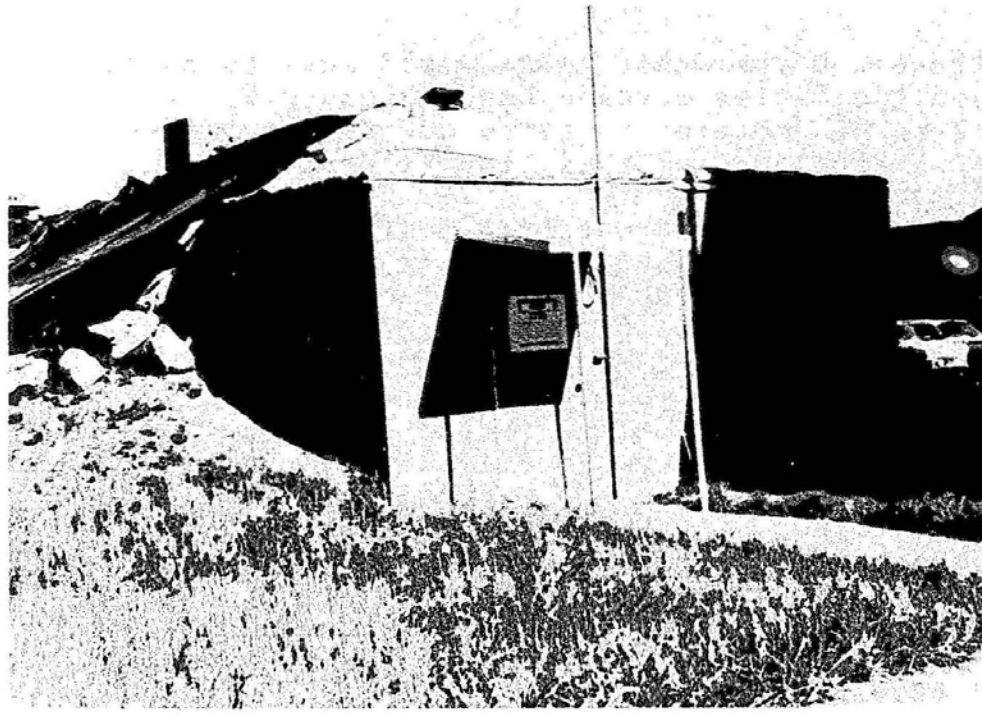
The center in Maynard, Massachusetts (about 25 miles west of Boston), is a two-story underground structure of about 33,600 square feet which, in an emergency, would house about 320 people from DCPA, FPA, certain civil agencies, and the Reserves. It contains two diesel power plants, two wells, water storage tanks, a complete sewerage system, dormitories, a laundry, and a kitchen. The communications room, which contains teletype, telephone, radio, and other equipment capable of transmitting pictures and charts, has been shielded against electromagnetic pulse. 1/

In contrast, DCPA's Santa Rosa, California, center is a small aboveground quonset-hut-type building covered with dirt to provide additional protection and containing communications equipment. (See photographs on p.22.) An adequate center in this region would need to house approximately 317 Federal officials, but the present facility is considered adequate to house only 56 officials (all 56 are from DCPA and the U.S. Army Communications Command). An alternate site, at a nearby State college, is also considered inadequate.

FPA's fiscal year 1976 guidance to DCPA recognized the need to either upgrade or replace this facility. However, while FPA was considering space at a recently deactivated Air Force base, DCPA prepared a proposal to

---

1/Part of the energy released during a nuclear detonation can appear as electromagnetic pulse, which has the same frequencies used by radios and which can disable communications equipment.



DCPA'S FEDERAL REGIONAL CENTER AT SANTA ROSA, CALIF.

locate the center in a new reserve facility being constructed in Santa Rosa. Federal Preparedness Agency regional officials knew little about the reserve facility proposal until after DCPA's Region 7 submitted it to DCPA headquarters. Furthermore, according to FPA officials, they were completely unaware of a second alternative site being considered by DCPA.

Perhaps because the California area essentially has no Federal regional center, Federal plans for continuity of government are not comprehensive, and have not been exercised. Data available at FPA's regional office in May 1976 showed that only 3 of the 23 category A agencies located in the region had provided lists identifying team members, and the three lists were not complete. After our review of FPA's continuity-of-government program, DCPA gave FPA officials a list of 18 agencies which had at least partly identified their emergency teams.

Plans for carrying out emergency functions were also incomplete in the California area. Of the 27 agencies identified by Executive Order 11490 as having emergency functions in the region only 4 had current emergency operating plans. Three of the four plans appeared to be written for national headquarters rather than for the region. They defined emergency functions in broad statements and made only a limited effort to assign emergency responsibilities. The fourth plan dealt specifically with the region; it described emergency relocation and established an alternative site. According to an FPA official, a fifth agency's plan was being printed in May 1976.

The Selective Service System, not included in Executive Order 11490, also had an emergency plan. This plan appeared to assume that normal operations would continue during a national emergency and concentrated more on paying agency employees than on conducting agency responsibilities during a national emergency. The Federal Preparedness Agency regional officials recognized deficiencies in the continuity-of-government program, but said they could not force agencies to comply with program requirements.

Continuity-of-government planning appears to be more effectively coordinated in FPA's Region 1. In this region, FPA has held seminars for emergency teams at DCPA's Federal Regional Center in Maynard, and DCPA staff have given presentations. Also, the FPA staff is helping category A agencies to update their emergency plans.

If continued Government operations are essential to the Nation's recovery, the Government must have plans for such operations and protected facilities in which to carry them out. In our opinion, FPA and DCPA have not adequately coordinated these plans, and FPA may not have sufficient authority to enforce development of the plans. As a result, it is questionable whether the Government would continue to function in some areas if the United States were attacked.

FEDERAL PLANNING ASSISTANCE TO STATES

DCPA, FDAA, and FPA are responsible for providing emergency planning assistance to State and local governments. Presently, only DCPA and FDAA provide financial assistance to State or local governments.

Of the three agencies, the Defense Civil Preparedness Agency has by far the most impact on States, since it helps to fund their emergency systems and has frequent contact with them through about 400 field personnel. The Federal Preparedness Agency, in contrast, has about 30 field personnel and the Federal Disaster Assistance Administration has about 100. Through its field offices, DCPA works with State agencies and encourages the development of emergency plans and preparedness systems.

The Federal Civil Defense Act authorizes DCPA to make financial contributions for State and local civil defense personnel and administrative expenses. These contributions were designed to assist States and their political subdivisions in developing emergency response capabilities, and personnel receiving funds are expected to devote some time to preparedness planning. DCPA's guidance states that emergency plans should create the capacity to (1) save the maximum number of lives in the event of a nuclear attack, (2) protect property, (3) preserve civil government, and (4) support economic activities essential for survivial and recovery.

Besides the matching funds available from DCPA, FDAA grants are given to States for natural disaster planning. The Disaster Relief Act of 1974 authorizes FDAA to provide grants up to $250,000 to each State and to provide up to $25,000 in annual matching funds to update the States' natural disaster plans. According to FDAA, the plans developed from the grants should:

1. Describe State and local government procedures for obtaining Federal assistance in Presidentially declared disasters.

2. Identify State and local responsibilities in responding to disasters before Presidential declarations.

Most States have one agency which handles preparedness for and response to all types of disasters, both war-caused and peacetime. The State disaster agencies therefore must deal with both DCPA and FDAA in obtaining funds and developing their emergency plans, which has caused some confusion at the State level.

Although FPA is responsible for giving guidance to States on resource management and continuity-of-government plans, FPA has only two professionals in each of its 10 regions and therefore has little contact with the States and communities. The Federal Preparedness Agency has not funded any State planning programs since it provided grants for resource management planning in the 1960s. However, DCPA has agreed to extend its financial assistance for State resource management planning.

A July 1976 study made under contract for FPA examined State planning and concluded that it should be more comprehensive, covering all types of emergencies, and that it should emphasize plans for preventing, mitigating, and recovering from emergencies. On the basis of this study, FPA originally requested funds to help States develop comprehensive emergency plans in fiscal year 1977, but FPA's final budget did not contain this funding request.

NEED TO IMPROVE STATE AND LOCAL PLANNING

As DCPA has noted, local emergency plans and procedures are the keystone to the protection of life and property. Whether a nuclear attack or a natural disaster occurs, local governments will feel the effects first and will therefore have to start coping before getting help from the State or the Federal Government. States will have to be prepared to provide assistance before the Federal Government can gather up its own resources. The importance of State and local planning, therefore, cannot be underestimated.

States and communities requesting financial assistance from DCPA must have current emergency operating plans. The basic plans describe the local emergency organizations and resources available for responding to an emergency. They provide authority, establish general policies, and define emergency relationships to other jurisdictions and

organizations. According to DCPA's guidance, a complete basic plan is supported by 14 annexes which define the responsibilities of the police, fire department, etc. Additionally, States are to prepare response plans for each likely disaster and each response plan is to have standard operating procedures outlining who will take specific actions. The response plans and procedures constitute the operational portions of an emergency plan.

All six of the States we visited had emergency operating plans for nuclear attack and natural disasters, except for Massachusetts, which had no natural disaster plan. However, most plans were very general and some were outdated. For example:

--The plans for nuclear attack in both Massachusetts and New Hampshire were dated 1958. Implementing these plans would be difficult because the names of State departments and rosters of key personnel were out of date. A revised New Hampshire plan was being reviewed by DCPA in June 1976.

--California's war emergency plan described the disaster organization, outlined readiness conditions, and established mutual aid regions. The plan did not have detailed annexes describing responsibilities of State agencies. In contrast, California's natural disaster plans were very detailed and had response plans for standard operating procedures for each likely disaster. California officials said plans for war-caused disaster were often considered compliance documents, while natural disaster planning addressed itself to the more immediate threat.

At the local level, officials are expected to be involved in the planning process. Through this involvement, DCPA hopes that local officals will better understand their responsibilities and will prepare effective, original plans for carrying out these responsibilities. However, most local officials did not get involved in developing plans tailored to their communities; instead, they usually copied or filled in the blanks of model plans provided by the State of DCPA. Also, those plans that were developed by the communities were often outdated. The number of local plans which were copies of model plans and the number of original plans are compared below for three of the States we visited.

State:	Number of local emergency plans Reviewed	Copied model	Original
California	a/412	327	85
Nevada	19	16	3
New Hampshire	200	190	10

a/Three plans were unavailable.

None of the communities in California had completed all 14 required annexes. More than 20 percent of the communities had not completed any annexes, and about 35 percent had completed six or fewer. State officials said many communities develop only those annexes necessary to obtain Federal assistance. For example, a town requesting firefighting equipment through DCPA's excess property program, must have a fire department annex.

In New York State, a new emergency operations plan with annexes was developed early in 1976 to cover nuclear attack and natural or man-made disasters. The plan is to cover all jurisdictions in the State, and district and local civil preparedness directors are to prepare standard operating procedures to provide for their jurisdictions' individual characteristics. However, a State official said that communities had not yet been asked to prepare their sections of the plan, and he did not know when they would be asked. Some communities we visited in New York State had not revised their annexes in several years. Local officials said they had not revised their annexes either because they were waiting for the new State plan or because circumstances had not changed.

In some States, including Massachusetts and New Hampshire, local emergency plans are prepared as part of DCPA's University Extension Program. In this program, the Defense Civil Preparedness Agency contracts with various universities to hold workshops for local civil defense directors and operating officials, such as police and public works officials. The plans prepared during the workshops appeared to be more professional and tailored to meet the needs of individual communities, and the local officials were able to work out their own solutions to simulated problems. In fiscal year 1975, four communities in New Hampshire prepared plans under this program and had complete annexes. In Massachusetts, 10 communities participated, but some did not complete their

annexes. In one town, officials had not completed their annexes 17 months after the workshop.

It appears that despite the guidance and financial assistance available from various sources, State and local governments are not fully committed to emergency planning, and nuclear attack planning, while encouraged by DCPA, has suffered. While a few plans appear to be comprehensive, we question the value of plans which are not tailored to meet community needs and which are prepared only as compliance documents to obtain DCPA assistance.

CONCLUSIONS

Federal, State, and local governments have not adequately fulfilled their preparedness planning responsibilities or sufficiently coordinated their plans for war-caused disasters.

DCPA has helped to fund the construction of many State and local emergency operating centers. (See ch. 6.) However, not all Federal Government emergency operations centers are completed. Since these centers are the cornerstones of transattack operations and immediate postattack recovery, we believe these protected facilities should get first priority in funding. Once these are funded, State-level facilities should be funded, followed by district-level facilities, etc. DCPA and FPA should work more closely to attempt, within their limited authority, to provide all Federal regions with protected facilities, to persuade all agencies with essential functions to have plans for using these facilities, and to exercise the plans.

RECOMMENDATIONS

We recommend that the Administrator of the General Services Administration direct FPA to coordinate more closely with DCPA in preparedness planning. Emphasis should be given to the identification and completion of all 10 Federal Regional Centers and of Federal agencies' plans for using the centers. Once completed, these plans should be regularly exercised.

We also recommend that the Secretary of Defense direct DCPA to (1) more thoroughly review State emergency operating plans for nuclear attack before providing financial assistance and (2) make spot checks of local emergency operating plans to insure that they are specifically tailored to meet each community's needs.

AGENCY COMMENTS

The Department of Defense agrees that closer coordination should be maintained between DOD and FPA when they conduct preparedness planning and indicated greater emphasis will be placed on coordinating planning for the completion and use of the Federal Regional Centers.

The Acting Administrator, General Services Administration, in an April 20, 1977, letter, said that the lack of FPA/DCPA coordination is not a major problem. He pointed to a statement made recently by officials of DCPA at a congressional hearing on February 7, 1977, that coordination was not a current problem and cited the mutually agreed upon plan and location for constructing the Region 7 Federal Regional Center in California.

We believe coordinating the preparedness plans and having protected facilities for use during an emergency will help the Government to perform the operations essential to the Nation's recovery.

Although FPA and DCPA are coordinating now upon a plan and location for the Federal Regional Center in Region 7, more coordination between FPA and DCPA is required for continuity-in-government planning, for the implementation of the plans, and for the use of the centers.

DOD has advised us that DCPA has begun to implement a system for determining the currency of local emergency operations plans. The system will include spot checks of the plans to insure they are operational documents which are designed to fit specific community needs. This system was not operational during our review and we have not been advised as to when it will be fully operational. It appears that this review system will help to insure the currency of local emergency operating plans and the spot checks of the operational documents will assure DCPA that local plans are operational and tailored to each community rather than being copies of State or DCPA model plans.

CHAPTER 4

HOW WILL THE POPULATION BE PROTECTED?

On August 6, 1945, a 12-kiloton atomic bomb was released over Hiroshima, Japan. Of the 245,000 residents, about 70,000 were killed and 60,000 were injured. In addition, 4 square miles of the city were destroyed by the bomb's blast and heat. Today, nuclear arsenals hold many bombs which are 1,000 times more powerful than those used at Hiroshima and Nagasaki. A full-scale nuclear attack on the United States could cause extensive destruction and millions of casualties. 1/

In the past the primary goal of the civil defense program was to provide the U.S. population with shelter from radioactive fallout. As discussed in our previous report, "Activities and Status of Civil Defense in the United States" (B-133209, Oct. 26, 1971), there were no programs to protect people from the direct effects of nuclear weapons, such as blast, heat, and shock, or from chemical or biological weapons. Although DCPA still does not emphasize protection from chemical or biological warfare, it has started evacuation planning to protect people from the direct effects of nuclear weapons. This objective is based on studies which concluded that:

--An attack would likely be preceded by a period of international tension.

--Blast and fire would probably endanger people living or working near military installations and large metropolitan areas (high-risk areas).

--Funds were not sufficient to construct underground blast-and-fire-proof shelters in high-risk areas.

DCPA's current plans thus call for either (1) sheltering survivors from fallout in shelters near their homes or work locations if an attack occurs without warning or (2) relocating people from high-risk areas to fallout shelters in safer "host" areas if a 2- to 3-day warning period precedes an attack. DCPA spends about $7 million a year on these two programs.

1/The destruction potential of the more powerful bombs is not directly proportional to the increased power. See page 7 for the destructive potential of a 20-megaton bomb, compared with the 12-kiloton bomb at Hiroshima.

DCPA's designation of high-risk areas and emphasis on these areas indicates that the civil defense program administration has improved since we issued our 1971 report. At that time, we reported that all areas were treated on an equal basis rather than on the basis of expected risk. But to achieve the objective of protecting the civilian population, both the shelter program and the relocation program need more attention and better planning at all government levels.

FALLOUT SHELTER PROGRAM

The fallout shelter program is designed to provide the entire U.S. population with shelter from radioactive fallout. DCPA pays the cost of identifying shelter spaces and provides radiological defense equipment to communities for use in the shelters. It is up to the States and communities to mark and stock the shelters, and to develop plans for using them.

Many buildings have been surveyed since 1961 to identify shelter spaces which meet DCPA's standards. To meet the standards, a shelter must have:

--A protection factor of at least 40, which means that people inside the shelter would be exposed to no more than one-fortieth as much radiation as unsheltered people.

--Ten square feet of space per person.

--Sufficient natural ventilation. 1/

DCPA hires college engineering students to make the survey during their summer vacations. In fiscal year 1975, DCPA spent about $5 million on the survey. The survey is now being made only in the high-risk and host areas to identify (1) buildings which offer protection from direct effects and which could be upgraded to provide more fallout protection, and (2) potential mass-care facilities.

Once shelters are identified, licenses are to be signed by the building owners to authorize (1) entry by the public in an emergency, (2) placement of shelter signs,

1/The radiated particles comprising fallout from nuclear detonations are considered to be relatively heavy in relation to air. The fallout is expected to come to rest relatively quickly after detonation and not contaminate natural air inside shelters.

(3) storage of shelter supplies, and (4) inspections by Federal and local government officials. However, some building owners refuse to sign licenses primarily because they want the space for storage. Participation is voluntary and the building owners are not compensated for making space available. Other owners either are not sympathetic to the shelter program or have security problems in their buildings. As a result, about half of the identified shelters are not licensed. Also, many buildings have not been marked with shelter signs and would be difficult to find in an emergency.

The number of identified, licensed, and marked shelter facilities is shown below for three of the States we visited.

	Shelter facilities		
	Number identified	Percent Licensed	Marked
California	16,512	36	22
Massachusetts	12,178	38	33
New York	83,725	30	32

Shelters are unevenly dispersed

In our 1971 report, we stated that identified fallout shelter spaces were unevenly dispersed; cities had more than enough spaces for their populations, while areas outside major cities did not have enough. Even though DCPA has now identified almost 230 million spaces meeting its standards, the problem of uneven dispersal still exists. For example, on the basis of 1970 census data in Massachusetts, there are about 2.3 shelter spaces per person in Suffolk and Middlesex counties, but only about 0.8 spaces per person in the remainder of the State. The two counties house about 37 percent of the State's population.

Throughout the country, shelter spaces are concentrated in the areas which risk the direct effects of a nuclear attack. If a warning period permits relocation plans to be implemented, the shortage of shelters becomes critical. Nonurban host areas which do not have enough shelter space for their own populations will have no spaces for the relocated people. Some examples follow.

--Nevada has about three shelter spaces for each person in the State. But if people in high-risk

areas were moved to host areas, each person would have less than one-half of a shelter space.

--Of California's 20 million people, more than 17 million are in high-risk areas and might have to relocate. However, the host areas do not contain sufficient shelter spaces for their own populations.

The Defense Civil Preparedness Agency estimates that about 134 million people, based on 1970 census data, would be subject to moves from the 400 high-risk areas. Although the exact host areas for these people will not be known until the relocation planning is done in each area, DCPA estimates that the potential host areas have only about 50 million shelter spaces, as well as a total population of about 50 million.

Because DCPA does not have authority to construct shelters, this situation is difficult to remedy. But DCPA officials are optimistic about finding more host-area shelter spaces. We were told that, since the shelter survey began concentrating on the host areas, twice as many spaces have been found. DCPA also plans to increase the number of effective shelter spaces by using soil to upgrade protection factors in shelters having the structural capacity to support the soil.

Community shelter planning

DCPA provides 100-percent federally funded contracts to States to obtain the technical assistance of community shelter planning officers. The officers develop plans telling each citizen where to obtain shelter in time of emergency, and communities are expected to make arrangements with the local news media for distributing the plans in a crisis period. DCPA decided not to distribute the plans in peacetime because it found that people lost them.

To be effective, community shelter plans must be continuously updated as the shelter survey identifies new buildings and resident and worker populations change. Although DCPA fully funds development of these plans, some communities either lack plans or have outdated ones. For example:

--We found no specific plans in California.

--New Hampshire has not developed any plans for more than 3 years. A State official said the completed plans were outdated.

--In New York State, few plans have been developed recently because, we were told, the emphasis has been on relocation planning. A New York City official said the city had signed a contract with DCPA to develop a computerized community shelter plan, matching people with shelters at both their employment locations and their residences. However, DCPA discontinued the project before it was complete.

--In Massachusetts, plans covering more than half of the population were completed before 1972. Therefore, some of these plans, especially those covering urban areas, are outdated because of urban renewal or demolition.

We believe community shelter plans are an important part of the shelter program. Because the early fallout, which descends in less than 24 hours, is the most dangerous, shelters must be quickly accessible to the people. Shelters will only save lives if people can find them; people will not find those that remain unmarked unless predeveloped shelter plans specify their locations. In addition, movement to the shelters will be chaotic if plans do not indicate who should go to specific shelters.

Marking and stocking shelters during a crisis period

In the early 1960s, DCPA bought and distributed about 165,000 tons of food and supplies, worth about $122 million, for use in fallout shelters throughout the country. Because of limited funds, shelter stocking has been discontinued. Some of the distributed supplies, which now belong to the communities, have been donated overseas. Most of the food has become rancid, but is still edible. Because the supplies belong to the communities, DCPA does not know how many shelters are still stocked.

In its fiscal year 1977 budget, DCPA requested funds to mark shelters in the areas of highest risk to nuclear weapons' direct effects. For the remainder of the country, DCPA now expects the communities to mark and stock their shelters during a crisis period, and develop plans for carrying this out. DCPA believes that arrangements should either be made with grocery stores to obtain food or people should be told to bring their own food. But DCPA plans call for using the nearest shelters when a crisis period does not precede an attack. Such reasoning is obviously

inconsistent. We believe that, if there is not enough time to relocate people from high-risk areas, there also will not be enough time to mark, stock, and upgrade shelters. Although DCPA regional officials agreed with this assessment, they said DCPA would not require communities to mark and stock shelters before a crisis period.

Almost all communities we visited had not prepared plans for marking and stocking during a crisis period. Although the Massachusetts Civil Defense Agency planned to instruct people to bring their own supplies to public shelters, none of the local directors we interviewed had developed plans for doing so. But even if people brought their own supplies automatically, they would not know where to go if the shelters were not marked. Unless the information given to the public before the attack is specific, it is likely that people will attempt to crowd into those shelters that are already marked.

Although DCPA no longer buys shelter food stocks, it continues to buy and distribute radiation detection instruments. These instruments measure radiation exposure and will be useful in determining when it is safe to leave fallout shelters. At the end of fiscal year 1975, DCPA had distributed about $46 million worth of the instruments to State and local governments. In May 1977, we were advised that DCPA had discontinued buying and distributing radiation detection instruments. They continue to buy parts to retrofit existing instruments, as well as replacement batteries. The inspection, maintenance, and calibration program for these instruments is 100-percent federally funded. The funds also permit the States to train people on the use of the radiation instruments. In both fiscal years 1974 and 1975, the Defense Supply Agency sampled instruments throughout the country and rated the overall serviceability as excellent.

Inspecting stocked shelters

Local civil defense directors are expected to inspect stocked shelters. But directors make few inspections, and those that do seldom keep inventory records. For example:

--Eight Massachusetts communities that we visited had stated in their fiscal year 1976 submissions to DCPA that the local directors would inspect shelters during the year. Five of the directors, however, told us they did not routinely inspect shelters and had not done so in some time. Our

review indicated some shelters had not been inspected since 1972. Two of the three directors who made inspections did not keep records of them.

--Of four communities we visited in New York State, only one maintained an inventory comparing the original amount of stocked supplies with the present amount. A local official told us that he had inspected about 85 percent of the stocked facilities over a 2-year period. However, the civil preparedness staff of this community is being reduced from eight to three, so no doubt shelter inspections will not receive as much attention in the future.

At some shelters we visited, we found cases of crackers dated between 1962 and 1964, some filled and some empty water barrels, sanitation kits, and medical supplies. (See photographs on p. 37.) Other shelters that were reportedly stocked either contained no stocks or were not marked as fallout shelters. One shelter, located at the former Boston Naval Shipyard, was supposed to be stocked for more than 24,000 people, but we found no stocks. The Boston civil defense director told us that the Navy was responsible for these stocks and had failed to notify him when the stocks were removed.

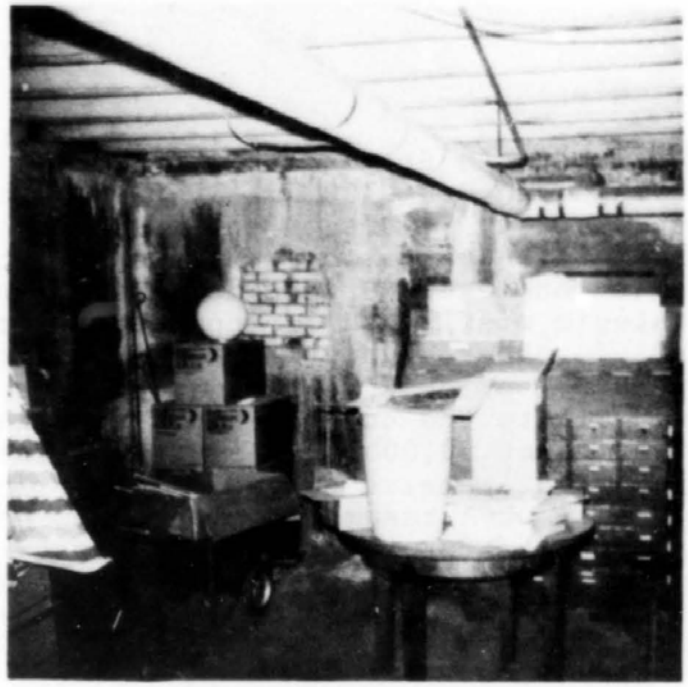
Although DCPA, through the military veterinary services, has inspected selected shelters, it plans to discontinue the inspections in fiscal year 1977. In fiscal year 1975, the Veterinary Corps found that:

--Some stocked medications should be replaced or labeled to advise users of their loss of effectiveness.

--Food stocks could be eaten safely, although the taste was judged as poor.

--Some medical kits contained phenobarbital, a barbiturate, even though DCPA had instructed local directors to dispose of it before it was stolen.

The Veterinary Corps also found that some reportedly stocked shelters contained no stocks.



**CIVIL DEFENSE SUPPLIES IN LIBRARY BASEMENT,
SHREWSBURY, MASS.**

**WATER CANS IN MOTEL BASEMENT,
FRAMINGHAM, MASS.**

CRISIS RELOCATION PLANNING

With the help of the States and the approval of FPA, DCPA developed maps of about 400 likely targets and grouped them into three priority levels on the basis of expected risk. The 53 priority one targets include intercontinental ballistic missile complexes, Strategic Air Command bomber bases, and strategic missile submarine bases. Priority two targets include other high value military installations and Washington, D.C.; priority three targets are industry and facilities basic to the economy and cities having populations of at least 50,000. In addition, the maps show areas which might receive heavy fallout. In designating the high-risk areas, DCPA assumed nuclear weapons were detonated as air bursts for prediction of blast risk, rather than as ground bursts for fallout risks. These detonations are the types causing the severest damage and heaviest fallout.

The Defense Civil Preparedness Agency provided the high-risk maps to the States, which carry out the relocation planning through fully funded contracts with it. We did not study the data from which the maps were made, but our review of the maps raised questions, such as:

--Why does fallout tend to stop at county lines?

--How can an area be completely surrounded by direct effects and fallout, and not be considered a risk?

DCPA officials said these risk maps were intended only as planning documents and should not be used by local officials to identify actual blast and fallout patterns.

The first prototype relocation project was begun in San Antonio in 1973. Eight other projects were in the final phases at the end of our review. In fiscal year 1976, DCPA spent about $1.3 million on the eight projects, and it planned to start projects in the remaining high-risk areas in fiscal year 1977.

Relocation planning includes:

--Allocating risk-area populations to appropriate host areas.

--Assessing the areas' communications and warning systems.

--Identifying fallout protection in, and preparing emergency information for, host areas.

--Planning logistical support for relocated people by assessing food distribution channels, transportation systems, etc.

--Outlining risk-area operations, including security measures, to keep essential industries operating and providing the best available blast protection for people remaining in such areas.

Developing these plans is obviously a tremendous task. Once millions of people are moved to safer areas, they must be provided such services as shelter, food, medical care, and sanitation facilities. Some communities, however, may not be structured to provide such services to a large number of people. In addition, the success of relocation plans will largely depend on the residents' cooperation in following instructions and on the communities' ability to give coordinated instructions, control highway movement, and maintain order.

As discussed on page 32, one of the major problems facing relocation planners is finding sufficient shelter spaces in the host areas to accommodate the relocated populations. Another problem is that the relocation projects are done only in areas which agree to participate. For example, in 1976, the California Legislature refused to approve the relocation contract with DCPA even though no State funding was required. California officials did not want to participate because:

--No provisions had been made to build facilities or stockpile provisions in the host areas.

--They believed the relocation plans and the immediate-response shelter plans were inconsistent.

--They doubted that an orderly planned evacuation could take place under a threat of nuclear attack.

Because DCPA officials consider relocation planning a pilot program to determine the concept's feasibility, they believe the State Legislature should have accepted it. For fiscal year 1977, California approved a contract for a feasibility study on relocation planning.

We also found indications that crisis relocation planning should be more closely coordinated with the Federal Preparedness Agency at the regional level. An Arizona official felt that Federal information on economic stability and resource mobilization and allocation was inadequate to effectively plan for relocation, and FPA Region 9 officials knew of no plans to provide States with this information.

In addition, relocation planning could have a major impact on FPA's continuity-of-government and recovery plans. For example, if Federal agencies located in Boston could not return to their offices after an attack, one of the areas in which they might set up offices is Amherst. Because Amherst probably would also be a host area for residents of Springfield, FPA and DCPA would have to closely coordinate use of the Amherst shelters. The regional director of the Federal Preparedness Agency said he was monitoring the relocation planning in the area.

Relocation planning will be especially difficult in certain densely populated parts of the country, such as California, the Detroit-Chicago area, and the Northeast Corridor, which extends from the District of Columbia to Boston.

DCPA recognized that plans for relocating people in these areas would have to be done on a regional basis because of problems in attempting to develop plans for selected urban areas. As a result, these plans were discontinued in the Northeast Corridor until DCPA studied the feasibility of relocating people living on the East Coast. However, DCPA went ahead with a project in the Utica-Rome, New York, area. Although the first step in relocation planning is supposed to be State-and-regional-level planning, the Utica-Rome planners skipped this step because the Northeast Corridor study had not been completed. Therefore, plans for Utica and Rome have been made without knowing what will be done with the 11 million people in the New York City metropolitan area or with any other nearby urban residents. We believe that since the Utica-Rome plan may conflict with other Northeast Corridor plans, future planning projects in the area should only be carried out on a regional basis.

In June 1976 the Stanford Research Institute completed the first phase of the Northeast Corridor feasibility study which analyzed the problems and evaluated alternatives. The second phase of the study will be the preparation of planning guidance for use not only in the Northeast, but also in other densely populated areas, such as the

Detroit-Chicago area and the State of California. The third phase will be the actual field testing of the planning guidance.

The study concluded that, under the current planning assumptions, relocation of the Northeast Corridor was marginally feasible at best. High-risk populations could be allocated to host areas if average relocation distances of nearly 200 miles and a maximum distance of 320 miles were considered satifactory. The study found that 75 percent of the high-risk population could be housed in shelters upgraded during a crisis period, and 25 percent of the population must be housed in expedient shelters with high fallout protection. Expedient shelters are those built during a crisis period and include door-covered trenches and aboveground A-frames. It was also found that relocating New York City residents would take at least a week--rather than the assumed 2 to 3 days.

The Stanford Research Institute was more optimistic, however, when it changed certain assumptions "within existing policies and guidance." For example, DCPA had considered certain areas at risk to blast because they were "tentacles" of urbanization attached to large metropolitan areas. Stanford found that, because these areas would not be targets in their own right, they could be excluded from the high-risk areas and improve the feasibility of relocation. By altering other assumptions, Stanford concluded that relocation at a reasonable distance from the risk areas was feasible. In addition, Stanford recommended that a special study, emphasizing a transportation analysis, be made of relocation from the New York City area.

CONCLUSIONS

The civil defense program operates on the principle that it is possible to provide people with some degree of protection from the effects of nuclear weapons. DCPA studies, which we have not evaluted, show that millions of people would survive a nuclear attack. For those surviving the initial nuclear impact, fallout shelters have long been recognized as effective protection against radioactive fallout. Through the fallout shelter and relocation programs, DCPA hopes to achieve the objective of protecting the population from the major effects of nuclear weapons.

Over the last 5 years, DCPA has improved administration of the civil defense program by setting certain priorities on

the basis of expected risk. This is evidenced by the designation of high-risk areas, the new emphasis of the shelter survey, and the planned shelter markings. However, several problems have limited the progress of the shelter and relocation programs.

DCPA fully funds the shelter survey, community shelter program, and relocation planning; participation by State and local governments is voluntary. But the civil defense program, as currently contemplated, will not save the maximum number of lives unless States and communities carry out certain actions, both now and in an emergency. Many States and communities have not taken these actions. We believe that those civil defense activities which involve the national interest should not be neglected because of disinterest on the part of an individual State or municipality.

RECOMMENDATIONS

We recommend that the Secretary of Defense direct the Defense Civil Preparedness Agency to eliminate the inconsistencies in plans for immediate-response use of shelters. DCPA should require, before providing further financial assistance, that State and local civil defense organizations:

--License and mark as many identified shelter spaces as possible.

--Make specific and realistic arrangements for stocking during a crisis.

--Complete or update community shelter plans.

We also recommend that the Secretary direct DCPA to place more emphasis on relocation planning based upon the total geographical area as opposed to evacuation of cities within the area.

AGENCY COMMENTS

Department of Defense officials recognize there is a lag in local actions to license and mark shelters, prepare plans for crisis stocking of shelters, and update community shelter plans. They also said DCPA has renewed a federally funded effort to update and mark shelters, and has increased emphasis on updating the community shelter plans. These officials stated that withholding financial assistance until the State and local civil defense organizations take the necessary actions would establish conditions most civil defense programs

could not meet in the near future. Furthermore, they said that if financial assistance were withheld much of the national program would come to a halt in many key communities.

GAO believes it is difficult to continue a national program if States are permitted to ignore a vital segment which affects the objectives of the national program. The Federal Government implemented the national program to identify shelters for the safety of the citizens and as a continuance of this program it is incumbent upon the States to properly mark and stock these shelters. The national objective of saving lives should be viewed by all State organizations as having the highest priority.

Department officials commented that preliminary findings indicate a need for regionalized planning in the Northeast Corridor and point out that a comprehensive regional plan could take several years to develop. They mention a current study of the New York metropolitan area as being 50 percent complete. According to Department of Defense officials, some State and local governments not directly affected by the New York City region have been authorized to do some limited preliminary planning before an ultimate solution is reached for the entire Northeast Corridor area. They also pointed out that they are conducting studies of the feasibility of relocation planning for the State of California.

The relocation of citizens from major metropolitan areas such as New York City, Boston, and Newark would affect every other area in the Northeast Corridor. Therefore, despite some benefits to be gained from the New York City study, we believe that if relocation planning is to be a viable alternative to save lives, greater emphasis must be placed on a total plan for the Northeast Corridor.

CHAPTER 5

HAS DCPA'S FUNDING OF STATE AND LOCAL SALARIES BENEFITED THE CIVIL DEFENSE POSTURE?

In carrying out its part of the joint responsibility for civil defense, the Defense Civil Preparedness Agency provides matching funds to States and communities to help improve their emergency capabilities. Of DCPA's $82 million budget in fiscal year 1975, almost $40 million was given to States and communities, in the form of matching funds, as shown below.

Matching funds for	Amount (millions)
Salaries and administrative expenses	$27.5
Design and construction of emergency operating centers	6.9
Purchase of equipment, such as warning devices and emergency vehicles	3.0
Maintenance and services (recurring charges)	1.3
Total	$38.7

In the same year, States and communities spent about $68 million of their own funds on civil preparedness.

DCPA spends more money on matching the cost of State and local salaries and administrative expenses than it does on any other program. Through this program, DCPA has helped to develop many State and local civil defense organizations designed to coordinate emergency operations. However, DCPA personnel feel that they are not able to fully achieve DCPA objectives because States and communities have primarily concentrated on preparedness for daily emergencies and natural disasters.

NEED TO IMPROVE CRITERIA FOR PARTICIPATION

To participate in any of DCPA's assistance programs, a State or local government must (1) have a civil preparedness organization established by law, (2) have a current emergency operations plan, (3) comply with the Civil Rights Act, and (4) have a program paper which projects the financial assistance needed and the civil preparedness activities planned for the current fiscal year. Each program also has specific requirements.

The specific requirements for a State to receive matching funds for salaries and administrative expenses include documents showing staffing patterns and an approved merit system, as well as a financial contribution request. The staffing documents show the number of civil preparedness employees, their titles, salaries, and time spent on civil defense. States are responsible for distributing the funds to eligible communities, and DCPA relies on the States' accounting systems to control the expenditures of both State and local funds. DCPA has only one or two auditors in each region who sample supporting documentation at the State level.

Although program papers and staffing patterns are supposed to determine whether a State or community is eligible for funds, DCPA seldom questioned these documents. Neither the States visited nor DCPA had formal criteria for approving local program papers, which often contained inaccurate or nonsubstantive information.

Local program papers

A community's annual submission of a program paper is the first step in determining eligibility for matching funds, as well as other DCPA assistance. Local program papers were designed to:

--Assist local governments in examining the status of their emergency readiness and in identifying areas needing improvement.

--Help the State and Federal governments in budgeting their support and assistance to local governments.

--Assist DCPA in reporting to the President and the Congress on the Nation's overall emergency operating capability.

To provide guidance to communities on preparing the papers, DCPA, together with each State, prepares an annual program emphasis paper. The fiscal year 1976 program emphasized nuclear preparedness with dual-purpose benefits for peacetime emergencies and provided a format for program papers. DCPA officials said that communities also follow guidance contained in DCPA's "Standards for Local Civil Preparedness," which describes what communities should do to build emergency readiness.

Local program papers must be approved by the State before they are sent to DCPA for review and approval. However, the States we visited had no written criteria for approving or disapproving the papers. Instead, papers were approved if they were in the proper format and contained information in all the necessary blanks. States seldom questioned the papers' contents. For example:

--In fiscal year 1976, California disapproved only one local program paper. State officials said it was disapproved because it did not project a meaningful civil defense program. An amended program paper submitted by the community was approved because, according to State officials, it projected activities for upgrading the civil defense program. This determination appeared to be based on the reviewers' personal knowledge of the community rather than on any formal criteria. In our opinion, the revised program paper projected little more civil defense activity than the original paper, but it did follow the suggested format better than the original paper.

--State reviews of local program papers in New Hampshire were academic, because State personnel prepared them and then had the local directors sign them. These papers generally consisted of one handwritten page containing unexplained abbreviations.

After the States review program papers, they are sent to DCPA for review. DCPA also had no specific criteria for approving the papers. Approvals were subjective and based on the reviewers' own informal criteria. DCPA accepted almost all papers approved by the States.

Many local programs, when compared with approved program papers, contained inaccurate or conflicting information and could not be relied on as status or budgeting reports. The Federal funds requested were often

overstated because communities had to submit their papers before the local governments appropriated their matching funds. for example, 77 Massachusetts communities showed personnel and administrative expenses totaling $440,000 for fiscal year 1976. Of these, 6 never requested the funds, and 43 requested less than the amounts shown on the program papers. This problem may be alleviated now that the beginning of the Federal fiscal year has been changed to October 1, because local governments have more time to appropriate funds before submitting their papers.

Other examples of inaccurate program papers follow.

--In New Hampshire, 54 percent of the dates of local emergency operating plans, as shown on the local program papers, either conflicted with the dates shown on the State plan or lacked a date on the State plan. In some cases either the State or local plan was correct, while in other cases, neither was correct.

--The program paper of a Massachusetts community showed that the number of licensed shelter spaces increased from 14,759 in fiscal year 1975 to 35,306 in fiscal year 1976. The local director said that even though he did not license any more shelters, he had shown an increase because State personnel told him his program paper might not be approved if he failed to show progress.

Some program papers project the same activities from year to year. For example, the California Highway Patrol's fiscal year 1976 paper listed 16 objectives which were identical to the fiscal year 1975 objectives. Most objectives were related to either natural disasters or regular Highway Patrol responsibilities, not to war-caused disasters. For one fiscal year 1975 objective, the Highway Patrol's yearend progress report stated:

"Department field commands provided emergency traffic control and assistance to local authorities during incidents surrounding the labor organization activities of the United Farm Workers. As in past years, the California Highway Patrol provided traffic control and assistance at the Calaveras County Fair and International Frog Jumping Jubilee at Angels Camp, California."

In some areas, county civil defense directors prepared identical program papers for several cities within their jurisdictions. Although DCPA officials were aware of this situation, they approved these papers if they believed the communities were attempting to develop a civil defense program.

We believe that use of Federal funds to support State and local activities for emergencies and natural disasters motivates State and local governments to participate in the Federal civil defense program. However, it is our opinion that Federal funds should not be made available unless program papers (and the programs as actually carried out) show some reasonable balance between activities related to Federal civil defense and those related to local interests.

DOD officials stated that in September 1976 DCPA promulgated a policy that Federal funds be given only to local governments that have program papers indicating adequate nuclear preparedness activities.

Need to set priorities on the distribution of funds

The funding process begins when DCPA allocates personnel and administrative funds to each State on the basis of a formula. States begin with the same basic amount, and DCPA allocates additional funds according to the degree of risk, number of critical support areas, population, and development of the civil defense program. However, the amount determined for each State through this process usually changes because the actual funds provided depend on the funds which the State and its communities can match. As a result, funds are not always directed to the areas in greatest need of effective emergency capabilities.

Although DCPA gives priority to communities in high-risk areas or to heavily populated communities, it does not provide funds to communities unwilling to finance at least part of the program. Although each State is responsible for establishing funding priorities for its communities, the States we visited had not done so.

Of the approximately 5,300 communities in the Nation which submitted program papers to the Defense Civil Preparedness Agency in fiscal year 1975, only about 2,300, or 43 percent, participated in the personnel expenses program. Participation varies from State to State. In New York, for

example, 55 percent of the communities with approved papers participated in 1975; and in New Hampshire, about 5 percent participated.

Communities with populations as small as 1,260 received personnel funds, while communities with populations over 250,000 did not. Also, many communities at low risk to nuclear effects received funds, while some communities in high-risk areas did not. For example, the California communities of Fairfield, Merced, Sacramento, Marysville, Riverside, and San Bernardino are located near military bases in the highest risk category, but only two of these communities received personnel funds.

Local officials who would like to either participate in the program or increase their participation told us they could not obtain any more matching funds from their local governments.

Beginning in fiscal year 1977, DCPA revised its procedures for providing personnel and administrative funds. Communities with populations less than 5,000 can no longer receive funds unless they join with adjacent communities in their emergency planning. We believe this is a step in the right direction. However, DCPA still will not be able to fund highly populated and high-risk communities unless the communities themselves appropriate the matching funds.

STATE AND LOCAL STAFFING

According to DCPA officials, only State and local emergency planning and managing positions are to be funded under the personnel and administrative expenses program. However, we found that many positions outside civil defense organizations were funded. These positions did not appear to be planning or managing ones, and we question whether they contributed to civil preparedness. Some examples follow.

--During fiscal year 1976, DCPA funded 22 policemen, 2 firemen, 5 Department of Health employees, and 1 employee of the Department of Social Services in Los Angeles County.

--Until January 1976, DCPA matched the $24,000 salary of the civil defense director of the Massachusetts Bay Transportation Authority.

--New York State received funds for a full-time State policeman and 15 (6 full-time and 9 part-time)

general services maintenance employees. The policeman had liasion duties between the State civil defense agency and the State police, and the maintenance employees worked in the seven State emergency operating centers.

--Of 126 New York City employees who received funds in fiscal year 1975, 27 were policemen whose primary duty was to train auxiliary police.

Many other funded positions were civil defense directors, deputy directors, and clerks. According to DCPA's guidance, local directors are responsible for (1) coordinating community-wide preparedness, including development of an emergency operating center and emergency plans, and arrangements for exercises, (2) developing unique capabilities not found in existing departments, such as radiological monitoring, warning, and shelters, and (3) providing public training.

Although many program papers stated that the local directors would inspect and license shelters, update emergency plans, train civil defense personnel, and conduct exercises, these tasks were often not done. Most local agencies we visited were concerned with ordinary emergency and natural disaster preparedness, not with nuclear preparedness.

In Boston, the civil defense agency is called the Boston Civil Defense Agency (Boston Fire Department), and its director is the District Fire Chief--Director of Civil Defense. The director, who received more than $13,000 a year in matching funds, and his assistant wore firemen's uniforms and had access to a fire department vehicle. The director said that the title of District Fire Chief was merely a pay grade designation, and that he and his assistant worked full time on civil defense.

We question the advisability of having the Boston director organizationally under the Boston Fire Chief, because in an emergency, he would have to coordinate the activities of department heads (such as the Fire Commissioner and the Police Commissioner) who are his superiors. The DCPA Region 1 Director said that he was concerned about the Boston agency's organization and lack of visibility, and that he planned to review the situation with the Massachusetts Civil Defense Director and the Mayor of Boston.

In 1972, DCPA set minimum staffing standards for local civil defense organizations on the basis of the communities'

populations. The standards indicate whether a community needs a full-time or part-time director, and how many professional support staff members are needed. However, meeting these standards is not a requirement for DCPA funding, and many communities were below the standards. For example:

--In fiscal year 1975, 81 California communities received personnel funds. Of 77 selected communities, 55 failed to meet at least one of the standards.

--According to the standards, Boston should have at least six full-time professional positions. But Boston had only two full-time positions and one part-time position.

--Although communities with populations of more than 15,000 should have at least one full-time professional, 38 Massachusetts communities which received funds and had populations of more than 15,000, had no full-time professionals.

In their comments, Department of Defense officials agreed that meeting the standards is not a requirement for DCPA funding. The officials stated that minimum staffing standards are objectives which various size communities should strive to attain. It is implied in their comments that the constraints imposed by local appropriations should have some impact on communities' staffing standards.

DCPA did not set maximum staffing levels. And although the standards called for minimum professional staffs of 15 to 40 in cities with populations of more than 1 million, they did not provide a mechanism for adapting staffing levels to a very large city, such as New York. The standards also set neither minimums nor maximums on clerical employees.

In fiscal year 1975, New York City had 126 full-time employees receiving funds, but DCPA did not question this staffing level. The city's civil defense office was eliminated in August 1975 due to fiscal problems and was reorganized as the Office of Emergency Services under the Police Commissioner, pending completion of a 1-year review by the Mayor's Task Force on Emergency Preparedness. We believe this review was warranted, since the city's civil preparedness functions were fragmented among several city departments.

DCPA also lacked guidelines regarding salaries to be paid to local civil defense personnel. There was no clear relationship between a local director's salary and his responsibilities since DCPA seemed willing to provide funds for whatever salaries the local governments deemed appropriate. For example, the salaries of both the Boston director ($26,262) and the civil defense director of the Massachusetts Bay Transit Authority ($24,000 plus $5,000 in fringe benefits) were higher than the Massachusetts State director, who received $21,121. The fiscal year 1976 salaries for full-time local directors in Massachusetts ranged from $9,532 to $26,262.

Defense Civil Preparedness Agency officials said they did not question salaries because funded communities must have approved merit systems which have salary scales. Also, DCPA officials agreed that many funded positions outside civil defense organizations were operating positions and should not be funded. According to the new funding guidance for fiscal year 1977, operating personnel, such as policemen and firemen, will no longer be funded. Also, funds are now provided on the basis of work-years rather than positions, and the number of work-years for which communities can receive funds is limited on the basis of population. Furthermore, funds must be justified on the basis of nuclear preparedness requirements.

In their comments, DOD officials stated that nonacceptance of Federal personnel and administrative matching funds does not necessarily mean there is no civil defense organizational capability in any given community.

CONCLUSIONS

By law, DCPA's funds for personnel and administrative expenses must be matched by the States and communities. As a result, those areas that were willing to put up their half of the matching funds received DCPA's funds; funds were not provided according to national priorities. In addition, the funds were provided on the basis of inadquate criteria and inaccurate data. DCPA set no firm eligibility requirements on communities and funded some positions that contributed little to civil preparedness. The new funding procedures for fiscal year 1977 should help to correct some of these problems.

In a preliminary report, we proposed that the Secretary of Defense require DCPA to establish clear criteria for the States to use in approving local program papers and spot check

the States' reviews of local papers. Papers which do not show that the community has made progress or which contain inaccurate data should not be approved.

MATTER FOR CONGRESSIONAL CONSIDERATION

We believe the Congress should enact legislation which would allow graduated Federal funding according to an area's expected risk, population, and relevance to national civil defense needs. Such legislation should be enacted because of both DCPA's difficulty in providing funds according to national priorities and its limited funding levels.

AGENCY COMMENTS

DOD officials stated that consideration should be given to other alternatives such as full Federal funding and block grants.

We agree that numerous alternatives should be considered before requesting new legislation. In chapter 7, we present several options to be considered for improving the civil defense posture. Most of these options, such as federalizing civil defense and making civil defense part of military defense, would also require new legislation. Many of the options do not require large expenditures; instead, they require good planning and support by the Federal Government.

States and communities receive funds for personnel and administrative expenses only when they match DCPA's funds. The use of graduated Federal funding would allow DCPA to distribute funds according to national priorities and civil defense needs.

DOD officials advised us on May 4, 1977, that they have rewritten and improved its "Standards for Local Civil Preparedness." The new DCPA management system currently being implemented reflects the current status of local program papers in relation to standard requirements and provides qualitative evaluations of program progress. The reporting system gives the States both criteria for reviewing and a management device for approving local program papers. Program management has been assigned top priority in fiscal year 1978. DCPA has increased its spot-checks of the States' review of local program papers in fiscal year 1977 and will upgrade its efforts in 1978.

Neither revised standards nor the management system was operational during our review. It appears that the new standards to be used by communities to prepare local program papers will still give some visibility to meeting established standards and objectives. Furnishing written criteria for approving or disapproving local program papers is an improvement. We believe that States will be in a better position to approve or disapprove local program papers by using the criteria as a measuring guide.

Increased efforts to examine the States' review of local program papers should help uncover those situations where the communities have not designed a program tailored to meet their needs.

CHAPTER 6

HOW EFFECTIVE ARE OTHER DCPA PROGRAMS IN IMPROVING STATE AND LOCAL READINESS?

In addition to having an organization for coordinating emergency operations, States and communities need certain facilities and equipment to carry out these operations. The Defense Civil Preparedness Agency provided matching funds to help pay for emergency operating centers and emergency equipment. Excess and surplus Government property, as well as onsite assistance, was also provided to improve State and community readiness.

Until fiscal year 1976, DCPA had no systematic means of assessing its programs' effectiveness in improving State and local readiness. In that year, DCPA instituted a new management information system for measuring preparedness needs and accomplishments. Objectives were determined jointly by DCPA and State and local governments; States and participating communities report their progress in meeting these objectives each year. States and communities also evaluate themselves subjectively on the basis of DCPA standards.

EMERGENCY OPERATING CENTERS

DCPA stresses to State and local governments the importance of having emergency operating centers that can be quickly activated for effective direction and coordination in an emergency. DCPA guidance states that the centers, in all possible cases, should be used 24 hours per day for such peacetime operations as police or ambulance dispatching. In a nuclear attack, the centers would be used to warn and instruct the public, receive and issue fallout information, and assess damage.

Federal matching funds are provided to design and construct emergency centers which have a fallout protection factor of at least 100, as opposed to individual shelters which require a protection factor of only 40. (See p. 15.) DCPA guidance states that, in addition to having good fallout protection, a fully qualified center should have (1) adequately ventilated space, (2) a reliable source of emergency power, including a 2-week fuel supply, (3) stocks sufficient for 2 weeks, (4) maps and displays in place, and (5) all necessary communications in place, including lines to the local emergency forces, hospitals, and shelters; and access to an Emergency Broadcast System communications

point. In addition, centers in high-risk areas should be protected against blast and should have strengthened or replacement communications antennas.

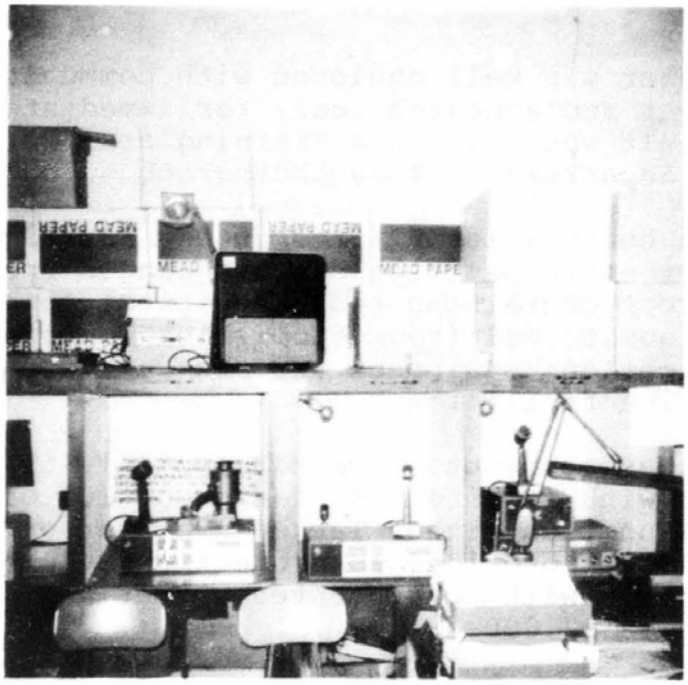
Although from fiscal years 1962 to 1975 DCPA spent about $68.5 million on State and local emergency operating centers, more than two-thirds of the Nation's centers were built or designated without the help of its funds, and many would be of little use in a nuclear attack. There appears to be no logical explanation as to why certain areas have effective centers and others do not. The lack of priority setting becomes even more evident when one realizes that some Federal regional centers (as discussed on p. 21) are essentially nonexistent, while some small cities have very effective ones.

At the end of fiscal year 1975, three States and two territories lacked State-level centers for coordinating emergency operations. New Hampshire, for example, had no center. Although the New Hampshire Civil Defense Agency had planned to build a center in the basement of a new State building, the legislature voted against it. The New York and Massachusetts State centers, in contrast, were designed to be the focal points for State government in an emergency. The Massachusetts center was constructed, at a cost of about $2.5 million (half in Federal funds), to withstand a 20-megaton nuclear explosion 3 miles away. It is capable of supporting an emergency staff of 150 for 30 days with no outside assistance, except for some food and medical supplies.

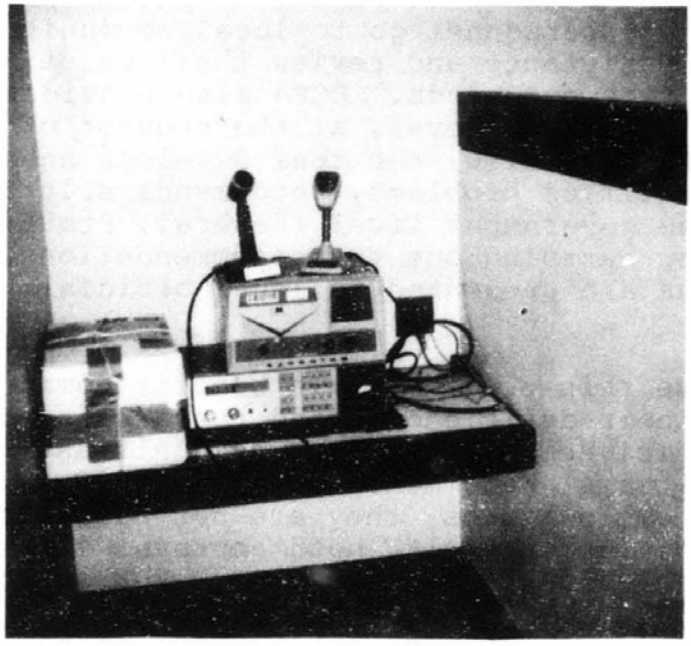
At the local level, some communities with small populations had emergency operating centers, while some with large populations did not. The centers we visited also had varying degrees of readiness.

--Boston's center, which would have to coordinate operations for its 640,000 residents and which was constructed without DCPA funds, had a fallout protection factor of 400. It was used as office space for another Federal program and was equipped with hotline telephones to various city departments, but had only two radios. The Boston director said that additional radios could be installed and that the center could be activated in an hour. (See photograph on p. 57.)

--The Cambridge center, which offers protection over 100, would coordinate operations for the 100,000 residents. Constructed with DCPA matching funds,



PORTION OF RADIO EQUIPMENT AT CAMBRIDGE, MASS., EMERGENCY OPERATING CENTER



ONLY RADIO EQUIPMENT AT BOSTON EMERGENCY OPERATING CENTER

the center was well equipped with communications equipment and appeared ready for immediate operation. It was used as a training area for the police department. (See photograph on p. 57 .)

--In five communities visited in New York State, the emergency operating centers ranged from a small room containing radio equipment in a basement boilerroom to multiroom facilities containing communications equipment and medical, dormitory, and office facilities.

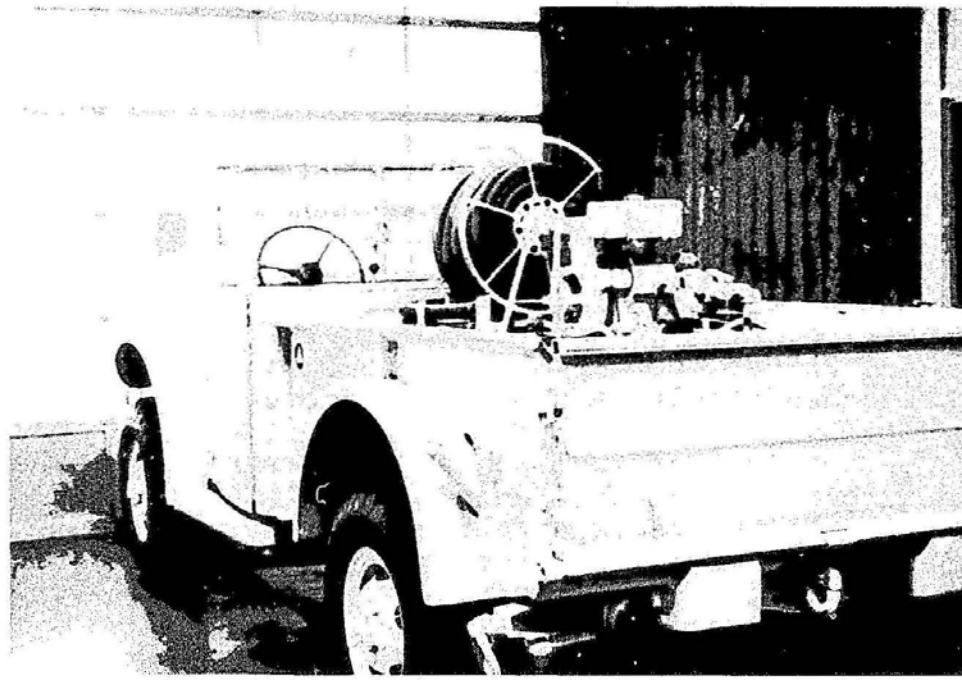
--Of 321 Massachusetts communities, only 67 had centers with a protection factor of 100 or higher. 155 communities either lacked a center or had a center which provided no protection. Some of the communities with no protected center had populations as high as 97,000.

ONSITE ASSISTANCE

DCPA considers the onsite assistance program the primary vehicle for offering the entire range of assistance and activities to local governments. In this program, teams of DCPA and State personnel go to local communities which request their assistance and review their existing emergency capabilities and needs. DCPA also provides onsite assistance at the State level, at the request of the Governor. After a review, the team develops an action plan which identifies problems, recommends solutions, and establishes the government level (Federal, State, or local) responsible for carrying out the recommendations. Recommendations are presented to local officials for their agreement.

We believe this program could benefit communities by pointing out their deficiencies and the assistance available to correct deficiencies. However, communities are not bound to accept the teams' recommendations. And if they do accept the recommendations, they are not bound to take action on them. As a result, both approval of and action on the recommendations have been slow. For example:

--In California, 96 communities had onsite assistance as of February 1976, but less than half had adopted the recommendations. Some of the onsite projects had been completed for more than 1 year.



EXCESS MILITARY 3/4-TON TRUCK REFURBISHED BY SANTA ROSA, CALIF., FIRE DEPARTMENT (NOTE CIVIL DEFENSE INSIGNIA)

EXCESS 2-1/2-TON TRUCK LOANED TO SHREWSBURY, MASS., BUT NEVER USED (NOTE LACK OF CIVIL DEFENSE INSIGNIA)

--In New York State, 19 communities had onsite projects as of the end of March 1976, but only 7 had approved the recommendations. Of the seven that had approved the recommendations, only one had carried them out.

--In Massachusetts, 28 communities had onsite assistance. Progress reports available for 14 communities showed that 53 percent of the recommendations had been carried out. But one community, which had the assistance in December 1972, had not carried out 30 of 45 recommendations at the end of September 1975.

We were told that implementing recommendations was often slow because of inadequate funds at the local level and the low priority of the recommendations in relation to communities' other needs. The delays in accepting the recommendations, according to some local officials, were due to the reviews necessary by various county legislative committees and by the legislature.

Some local civil preparedness officials believed that onsite assistance had benefited them because the various local service groups had become more aware of and receptive to them and no longer had problems in obtaining excess equipment. Other officials said the assistance was too inflexible and could not adjust to local needs and priorities. One community may completely drop its civil defense program because compliance with the recommendations would be too costly. Also, some local officials said they had not requested the assistance either because it would not give them any new information or because they viewed it as an audit of their effectiveness.

A New York city official said the city had not requested onsite assistance because the city was too large and would cause problems for State officials. However, DCPA gave New York City a $250,000 grant, considered to be modified onsite assistance, to review its own emergency capabilities and to develop an emergency operations plan.

Although DCPA cannot force communities to accept or carry out recommendations resulting from onsite assistance, it should improve its followup system to determine communities' progress. DCPA's Region 1 had not requested status reports since the quarter ended September 30, 1975. In Region 7, we found no evidence that DCPA had followed up to get action from the communities.

EXCESS PROPERTY PROGRAM

Property is considered excess when the possessor Federal agency no longer needs it. The property becomes surplus if no Federal agencies need it. DCPA has provided both types of property to the States and communities.

DCPA loans excess Federal property to State and local civil defense agencies under its Contribution Project Loan program. The loans are for 5 years, after which time they can be renewed. In fiscal years 1971 to 1975, property with an original acquisition cost of about $111 million was loaned.

The program was very popular with local civil defense agencies. The most frequently requested items were trucks and other vehicles, which were often used for firefighting or snow removal. The States determined which communities received the items requested and then requested the items from DCPA.

We previously reported 1/ on the use of the excess property by noncivil-defense organizations, such as universities. We pointed out that some property was used for general purposes unrelated to Federal projects, and that some had not been used. These problems were found at some civil defense agencies we visited. In addition, some vehicles did not have civil defense insignias, although a DCPA requirement. Photographs of excess items can be found on page 59.

In inspecting various items, we found that:

--Of nine vehicles loaned to six Massachusetts communities, two were inoperable and one operable vehicle did not have a civil defense insignia.

--One New York community spent $45,000 to make an excess helicopter operable. The helicopter was used jointly by the ambulance corps, county and local police, fire departments, and the civil defense agency. Another helicopter, on loan to the community, was inoperable.

1/"Use of Government Excess Personal Property by Non-Federal Entities" (LCD-76-207, Sept. 15, 1975).

--New York City had obtained a tugboat and a helicopter, both of which were inoperable. We were told that it would cost about $65,000 to make the tugboat operable, between $40,000 and $60,000 to obtain Federal aviation certification for the helicopter, and about $1 million for new helicopter engines. The city had returned 19 two-and-one-half ton trucks because it could not obtain spare parts to keep them operable.

--Although DCPA records showed that an excess van was on loan to Boston, the van had been disposed of in 1973 after it broke down.

DCPA's regional offices are required to inspect 25 percent of the equipment on loan each year. In 1974 DCPA's Region 1 delegated this responsibility to the State due to limited staff and the volume of equipment on loan. However, the States did not fully accept this responsibility; as of June 25, 1976, only 4 of the 10 States and territories in the region had submitted fiscal year 1976 inspection reports.

CONCLUSIONS

DCPA has spent considerable time and money in helping States and communities to improve their readiness. By providing matching funds for emergency operating centers, DCPA has assisted in building a communications network for use in emergencies. But the network has gaps, even at the State level, because certain States have chosen not to devote their funds to emergency centers. We believe that completion of Federal emergency operating centers should be given first priority in funding facilities (as discussed in ch. 3), State centers should be given second priority, large cities third priority, and then smaller cities, etc. While we fully realize that under the existing law completion of State and local centers depends on State and local funding approval, we believe that DCPA should emphasize to the States the need for State-level centers capable of directing operations during and after a nuclear attack.

In their comments, DOD officials agreed with the priorities we suggested and stated that they will make a strong recommendation for the funding and completion of the two remaining Federal Regional Centers at the earliest opportunity. Only four States do not have emergency operating centers meeting minimum requirements. In addition to these, DCPA is emphasizing State area and large city emergency operating centers.

The onsite assistance program, in concept, is a good example of joint Federal, State, and local cooperation in improving readiness. But communities have been slow in making needed improvements, and DCPA has not promptly followed up on the communities' actions.

RECOMMENDATIONS

We recommend that the Secretary of Defense direct DCPA to (1) encourage communities to participate in the onsite assistance program, emphasizing the benefits that can result; and (2) follow up on the status of onsite assistance recommendations.

AGENCY COMMENTS

The Department of Defense agrees that DCPA should encourage communities to participate in the onsite assistance program and follow up on the status of onsite assistance recommendations. The primary limitation on conducting onsite assistance projects for local communities is staff restrictions in the State and the DCPA regional offices. Department of Defense officials stated that DCPA is emphasizing increased effort in this area as far as resources will permit. Furthermore, they said that the new DCPA management system will monitor the implementation of onsite assistance recommendations. Since we have not observed the new management system, we cannot comment on whether it will permit Federal officials to follow up on onsite assistance recommendations.

Although communities are required to return inoperable excess equipment, the Assistant Secretary of Defense stated that a few do not do so in a timely manner. DCPA takes action to secure the return of inoperable excess equipment when it is aware of such cases. DCPA has recently obtained permission to cannibalize some pieces of loaned equipment for spare parts to repair other loaned items.

Although DCPA has not designed a reporting system that would make them aware of inoperable equipment, we believe its attempt to cannibalize such equipment should reduce the amount of inoperable excess equipment on loan to communities. However, this is not a viable long term solution, and some consideration should be given to planning a more precise information system intended to identify such equipment.

CHAPTER 7

SOME OPTIONS

The previous chapters have discussed the civil defense program as it stands today. The current program appears to be a compromise between advocates and opponents--a low-profile program which insures that some planning for protecting civilians exists, but does not require much funding or effort. Although the funding level is relatively low, the benefits to be obtained from a civil defense program in the event of an attack may be enormous. The Government has already recognized that viable programs can be developed within the present funding constraints. For example, crisis relocation planning was chosen as an alternative to the costly construction of blast shelters.

In our 1971 report we suggested that broad policy decisions on basic civil defense planning were needed. Pending any decisions made as a result of the policy debate we suggested in chapter 2, certain options can be considered to improve the civil defense posture. Most of these options would require new legislation. Many of the options do not involve large expenditures; instead, they call for good Federal planning and support.

FEDERALIZE CIVIL DEFENSE

If the entire civil defense program were made a Federal responsibility, rather than a Federal, State, and local responsibility, national priorities could more easily be accomplished. Many State and local officials would agree that civil defense is properly a Federal responsibility. The matching funds, previously used to support State and local civil preparedness organizations, could be redirected toward readiness in the high-risk and densely populated areas. Emergency operating centers could be built and upgraded on a priority basis (see p. 28), and shelters could be constructed with Federal funds in those areas which have shelter deficits.

However, this option has its drawbacks; without State and local involvement in nuclear preparedness, emergency plans might not be as quickly and effectively carried out. In addition, it would result in the loss of State and local government matching funds and would, therefore, increase the Federal cost for civil preparedness.

MAKE CIVIL DEFENSE PART OF MILITARY DEFENSE

If the civil defense program were made a Federal-only responsibility, it could be more closely tied to military defense. For example, the National Guard and/or the Reserves could be relied on as a cost-effective bridge between peacetime and wartime readiness. They could be trained to operate key State and local emergency operating centers, and radiological defense equipment, and they could take the place of State and local civil preparedness personnel in coordinating emergency plans. Most Guard and Reserve units already have the resources, as well as the training, for emergency operations, and are often the first on the scene of natural disasters. Although this option would probably involve the least cost, it might present problems to the States and communities which have developed their own emergency organizations and could conflict with the contingency military deployments of the National Guard and the Reserves.

By making civil defense part of military defense, closer consideration might be given to the locations of defense installations. We believe that in future base and depot closure or transfer decisions, Defense could try to disperse its industries and give more consideration to the civil defense characteristics of the populations affected.

INVOLVE PRIVATE INDUSTRY

As discussed in chapter 2, the Government presently has no programs or incentives to insure the survival of private industry. Since the Nation's recovery depends on industrial survival, this area needs more emphasis. At the very least the survival and dispersal characteristics of critical industries could be studied, and a dialogue between the Government and private sectors begun.

Survival characteristics, important to civil defense, can be compatible with other national goals. For example, it is possible that below-ground factories, in whole or in part, may be desirable from both civil defense and energy conservation viewpoints.

Certain measures could also be taken in existing above-ground factories to improve their chances of survival. For example, subject to further study, deflecting devices made of soil could be built outside factories to protect them from some types of blast effects.

Other protective methods, based on Soviet civil defense manuals, have been tested by the Boeing Aerospace Company on its own machines. These methods included (1) packing machines in sandbags or earth, (2) covering machines with crushable material, such as plastic foam or metal clips, and then covering this material with soil or sandbags, and (3) greasing machines to prevent corrosion and then submerging or flooding them in water. The tests showed that even large machines, if properly protected, could survive if they were a few hundred feet from a 40-kiloton nuclear blast or 2,000 feet from a 1-megaton blast.

Boeing has estimated that nationwide planning costs for 10 essential industries would be $20 to $40 million and stockpile costs would be $200 to $300 million for measures offering protection against blast pressures of 40 to 80 pounds per square inch. For protection against 200 to 300 pounds per square inch, however, Boeing estimates the cost from $2.5 billion to $3 billion. (See p. 9 for the pressures caused by a 20-megaton blast in pounds per square inch.)

CONCLUSIONS AND AGENCY COMMENTS

These options are not the only alternatives for improving the civil defense position. The Government should study these and other options to determine which ones offer the greatest benefits, and what tradeoffs must be made to incorporate new lines of thinking into the civil defense program. Although each option has potential for improving the program, we believe that none of the options will be effective without clarifying national civil defense policy.

In their comments, Department of Defense officials agreed that the Government should study these and other options, and develop positive program policy and direction that will provide the best possibilities within fiscal means.

As we indicated in this report, improvements can be made even within the scope of the limited civil defense program funded in recent years. A better definition of both the role of civil defense in the U.S. defense posture and the best way to accomplish such a role is needed. This can be accomplished through a Federal, a combined Federal-State-local, or private industry program.

CHAPTER 8

SCOPE OF REVIEW

Our review of civil defense concentrated on the Defense Civil Preparedness Agency's major programs, except warning and communications systems, 1/ and on coordination among DCPA, the Federal Preparedness Agency, and the Federal Disaster Assistance Administration. We examined documents and held discussions at the agencies' headquarters and at the following locations.

--DCPA's Region 1 office, Maynard, Massachusetts, and Region 1 field office, New York City.

--FPA's and FDAA's Region 1 offices, Boston.

--DCPA's Region 7 office, Santa Rosa, California.

--FPA's and FDAA's Region 9 offices, San Francisco.

We also worked at State and certain local civil preparedness organizations in Arizona, California, Massachusetts, Nevada, New Hampshire, and New York.

1/Our report, "Need to Control Federal Warning System Proliferations" (LCD-76-105, Apr. 9, 1976), examined DCPA's warning systems.

APPENDIX I

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

COMPTROLLER

May 4, 1977

Honorable Fred J. Shafer
Director, Logistics & Communications Division
General Accounting Office
Washington, D.C. 20548

Dear Mr. Shafer:

This is in reply to your letter to Secretary Brown which forwarded the GAO draft report, "Civil Preparedness of the Federal, State and Local Governments (OSD Case #4555).

The report provides a useful overview of the Civil Defense Program and a constructive evaluation of some of its current management problems. The Defense Civil Preparedness Agency has, in recent years, made considerable progress in strengthening its management systems and practices and we intend to continue our efforts in this regard. The subject report lends valuable information and insight to this process.

Thank you for providing us with the opportunity to review and respond to this report. Our comments on the GAO recommendations are provided at Enclosure 1. Enclosure 2 contains comments pertaining to the report's findings and conclusions.

Sincerely,

Fred P. Wacker

Fred P. Wacker
Assistant Secretary of Defense

Enclosures

(See GAO note 1.)

We agree that the options presented are among those which should be considered. We also agree with the principle that the Federal government should study these and other options and develop positive program policy and direction that will provide the best possibilities within fiscal means for the survival of this nation in the event of a nuclear attack. This was part of the motivation for the recent National Security Council Study of U.S. Civil Defense policy.

GAO notes:

1. The deleted comments relate to matters which were discussed in the draft report but omitted or changed in this final report.

2. Page references in this appendix refer to the draft report and do not necessarily agree with the page number in the final report.

APPENDIX II

UNITED STATES OF AMERICA
GENERAL SERVICES ADMINISTRATION
WASHINGTON, DC 20405

April 20, 1977

Mr. Fred J. Shafer
Director
United States General
Accounting Office
Washington, DC 20548

Dear Mr. Shafer:

Thank you for the opportunity to review and comment on the draft report entitled, "Civil Preparedness of the Federal, State and Local Governments" (GAO Code 947210).

In general, the report reflects the General Service Administration's civil defense policymaking and coordinating roles.

Members of my staff met with Mr. Werner Grosshans, Mrs. Mariann Thomson, and Mr. Carmen Smarrelli to discuss our preliminary comments in detail. While most of our specific comments were covered at the meeting, a few of the major points we want to emphasize are enclosed.

Sincerely,

Robert T. Griffin
Acting Administrator

Enclosure

APPENDIX II

Comments on GAO Draft Report Entitled,
"Civil Preparedness to the Federal, State, and Local Governments"

(See GAO note 1.)

2. It would be helpful if a clear statement of the study's purpose and scope were included early in the report.

3. As the report implies on page 23, State and local governments use DCPA funds and resources for natural disasters. While we favor this dual-purpose concept, and Congress has authorized some dual-use of DCPA resources, the intent of Congress on Federal support for peacetime emergency preparedness is still unclear. A recommendation suggesting legislative clarification of this issue would strengthen the report.

4. Problems relating to the Federal Regional Centers were discussed on pages 30 and 41. We believe that lack of funding to upgrade and expand this program is the major problem, not the lack of emphasis nor FPA/DCPA coordination. (See the attached excerpt from DCPA testimony on continuity of government at the February 7, 1977 hearings of the House Armed Services Subcommittee on Military Installations and Facilities.)

5. We agree with the report's statement regarding the need to improve State and local planning (page 34). Under contract to FPA, the Council of State Governments published a report entitled, "Comprehensive Emergency Preparedness in State Government." As a result, FPA's original FY 1977 budget submission included $3.4 million for the support of State comprehensive planning. The final budget did not include these funds.

APPENDIX II

6. The intent of the recommendation on page 73 is not clear. It could be interpreted as a change to the basic intent of the Federal Civil Defense Act which vested responsibility for civil defense jointly in the Federal Government and the States and their political subdivisions. Since existing resources at State and local levels are an essential component of any operational response in a nuclear attack, this partnership arrangement is vital to cooperative emergency planning and should be retained. Experience over the years has suggested that a unilateral Federal arrangement would not be feasible.

7. We support DCPA's effort in the study of crisis relocation planning as discussed on pages 54 to 60. The option appears to have good potential for lifesaving in a nuclear attack. However, there are many aspects of this program, i.e., social, economic, and political problems, which require further study. We will continue to support DCPA on crisis relocation planning including coordination of any interagency aspects required.

Excerpt from DCPA's Testimony at the Hearings of the House Armed Services Subcommittee on Military Installations and Facilities, February 7, 1977

Continuity of Government

What can be done from DCPA's standpoint to strengthen the continuity of government function? What can be done to improve coordination between DCPA and FPA?

Part 1 - Under present conditions the most definitive and productive move for DCPA would be to construct the two remaining hardened Federal Regional Centers (at DCPA Regions Seven and Four). If authorization and funds were provided these could be constructed in FY 1979 and 1980. Additionally, if sufficient funds were provided, DCPA could direct construction at 100% Federal cost of protected emergency operating centers at key locations for State and local governments where voluntary sharing has not been forthcoming on a matching funds basis.

Part 2 - We are of the opinion that coordination between DCPA and FPA is not a current problem. The two agencies are working hand-in-hand on a number of projects of mutual interest including a mutually agreed upon plan and location for the construction of the Region Seven Federal Regional Center in California.

GAO notes:

1. The deleted comments relate to matters which were discussed in the draft report but omitted in this report.

2. Page references in this appendix refer to the draft report and do not necessarily agree with the page numbers in the final report.

APPENDIX III

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL DISASTER ASSISTANCE ADMINISTRATION
WASHINGTON, D.C. 20410

March 15, 1977

OFFICE OF THE ADMINISTRATOR

IN REPLY REFER TO:

Mr. Henry Eschwege
Director
Community and Economic
Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Reference: GAO assignment
code number 947210

Dear Mr. Eschwege:

This is in response to your request to Secretary Harris of February 18, 1977, for comments on the draft report entitled "Civil Preparedness of the Federal, State, and Local Governments."

We have reviewed your draft report and find no reason to disagree with your findings and recommendations. For clarification, there are two points I wish to emphasize:

-- The discussion on page 28 of FDAA's use of DCPA in major disasters may leave the impression that civil defense and natural disaster preparedness are more mutually supportive than is the case. Actually, they are so only to a limited extent. Natural disaster planning will not achieve a civil defense posture for the Nation. This is especially true since fallout-protection and national-survival measures are absolutely basic to civil defense, as your report indicates, but are not the concern of planning for localized, "natural" disasters. Thus, the dedication of civil defense personnel to localized disaster preparedness will not suffice for--and can dilute attention to--the more difficult and demanding preparedness for enemy attack. Furthermore, even though many civil defense measures are applicable in natural disasters, some are irrelevant (e.g., decontamination) or inappropriate (e.g., condemnation authority).

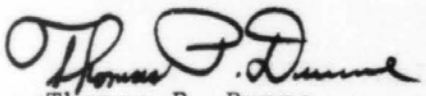
-- Page 89 of the report stresses the need for "clarification of national civil defense policy." This, we believe, is a prerequisite to any programmatic options, including any involving disaster preparedness.

APPENDIX III

We see nothing in the report which suggests a revision in FDAA's present preparedness policies and procedures. We concur in your recommendations, and especially your finding that there is a need for a clearer definition of the role of civil defense in the U.S. defense posture.

Thank you for the opportunity to review and comment on the draft report.

Sincerely,



Thomas P. Dunne
Administrator

GAO note: Page references in this appendix refer to the draft report and do not necessarily agree with the page numbers in the final report.

PRINCIPAL OFFICIALS RESPONSIBLE FOR ADMINISTERING ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office From	To
DEPARTMENT OF DEFENSE		
SECRETARY OF DEFENSE:		
Dr. Harold Brown	Jan. 1977	Present
Donald H. Rumsfeld	Nov. 1975	Jan. 1977
James R. Schlesinger	July 1973	Nov. 1975
DEPUTY SECRETARY OF DEFENSE:		
Charles W. Duncan, Jr.	Jan. 1977	Present
William P. Clements, Jr.	Jan. 1973	Jan. 1977
DIRECTOR, DEFENSE CIVIL PREPAREDNESS AGENCY: (note a)		
Bardyl R. Tirana	Apr. 1977	Present
John E. Davis	May 1969	Apr. 1977
GENERAL SERVICES ADMINISTRATION		
ADMINISTRATOR:		
Joel W. Solomon	Apr. 1977	Present
Robert T. Griffin (Acting)	Feb. 1977	Apr. 1977
Jack Eckerd	Nov. 1975	Feb. 1977
Arthur Sampson	July 1973	Nov. 1975
DEPUTY ADMINISTRATOR:		
Vacant	Feb. 1977	Present
Wallace H. Robinson, Jr. (Acting)	Dec. 1976	Feb. 1977
Terry Chambers	Feb. 1976	Dec. 1976
Dwight Ink	May 1973	Feb. 1976
DIRECTOR, FEDERAL PREPAREDNESS AGENCY:		
Dalimil Kybal (Acting)	Apr. 1977	Present
Leslie W. Bray, Jr.	Oct. 1973	Apr. 1977

a/Formerly the Office of Civil Defense until 1972.

APPENDIX IV

	Tenure of office	
	From	To
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT:		
SECRETARY OF HOUSING AND URBAN DEVELOPMENT:		
Patricia Roberts Harris	Jan. 1977	Present
Carla A. Hills	Mar. 1975	Jan. 1977
James T. Lynn	Feb. 1973	Feb. 1975
ADMINISTRATOR, FEDERAL DISASTER ASSISTANCE ADMINISTRATION:		
Thomas Dunne	July 1973	Present