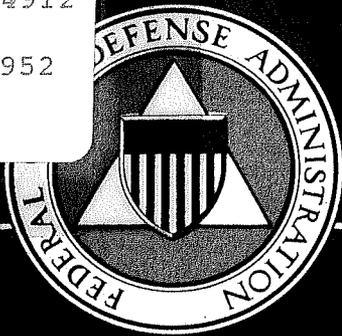


RR NO.

14912

1952



# Annual Report for 1952

FEDERAL CIVIL DEFENSE ADMINISTRATION

6192076

STAT# 1124112

ICR# 147112

1952

105700

1.3

# Annual Report for 1952



*United States*

**FEDERAL CIVIL DEFENSE ADMINISTRATION**

---

## LETTER OF TRANSMITTAL

*The Honorable, The President of the United States*  
*The Honorable, The President of the Senate*  
*The Honorable, The Speaker of the House*

I have the honor of transmitting to you the Second Annual Report of the Federal Civil Defense Administration, together with pertinent recommendations for Civil Defense in our future national security structure. This report is submitted in conformity with Section 406, Public Law 920 of the Eighty-first Congress.

Respectfully,

A handwritten signature in cursive script that reads "James J. Wadsworth".

JAMES J. WADSWORTH,  
*Acting Administrator.*

## CONTENTS

	Page
Letter of Transmittal.....	II
A Few Civil Defense Highlights of 1952.....	1
Homefront Preparedness—the Second Year.....	3
Initial Civil Defense Attack Assumptions.....	9
The National Civil Defense Plan.....	13
National Civil Defense Preparedness Before Enemy Attack.....	13
National Civil Defense Operations During and Immediately after Attack.....	16
The States and Cities in Action.....	19
Peacetime Disasters.....	19
Exercises, Tests, Drills, Alerts.....	23
Highlight Chronology.....	24
Regional Organization.....	29
How FCDA's Funds Were Spent During 1952.....	31
The Federal Appropriation.....	33
State Funds Available.....	33
The Contributions Program.....	33
Emergency Supply and Equipment Program.....	38
Federal Procurement.....	38
Operations.....	39
Administrative Operations.....	39
The People Learn Preparedness.....	41
Current Results of the Public Education Program.....	42
Information Media Activities.....	43
The Alert America Convoys.....	47
Emergency Information Operations.....	49
Conelrad Plan of Emergency Radio Broadcasting.....	51
Joint Public Education Program on Air Defense.....	52
Special Exhibit Program.....	52
The National Blood Program.....	53
Pledge For Home Defense Campaign.....	53
The Task Ahead.....	54
Civil Defense Manpower.....	57
National Organization Support.....	58
Women's Participation.....	62
Training and Education.....	65
Objectives and Procedures.....	65
Financing the Program.....	67
Training Schools.....	69
Educational Aids.....	71
Agency and Organization Cooperation.....	71
The Civil Defense Services.....	73
Civil Defense Fact Finding.....	74
Technical Guidance and Information.....	75
Attack Warning.....	79
Communications.....	82
Police Services.....	83

	Page
Rescue Service.....	84
Transportation Service.....	85
Warden Service.....	87
Health and Special Weapons Defense.....	88
Casualty Services.....	88
Radiological Defense.....	89
Biological Warfare Defense (People, Animals, Crops).....	90
Chemical Warfare Defense.....	91
Emergency Sanitation.....	93
Medical Supplies and Equipment During 1952.....	93
Emergency Welfare Services.....	94
Fire Services.....	96
Engineering Services.....	98
Facilities Self-Protection.....	100
Shelters.....	101
Civil Defense Supplies.....	102
Civil Defense Preparedness by Other Federal Agencies.....	105
Department of Agriculture.....	106
Atomic Energy Commission.....	106
Civil Service Commission.....	107
Department of Commerce.....	107
Department of Defense.....	108
Defense Transport Administration.....	109
Federal Communications Commission.....	109
Federal Security Agency.....	110
General Accounting Office.....	111
General Services Administration.....	111
Housing and Home Finance Agency.....	111
Department of the Interior.....	111
Department of Justice.....	112
Department of Labor.....	112
National Security Resources Board.....	113
Office of Defense Mobilization.....	113
Defense Production Authority.....	113
Reconstruction Finance Corporation.....	113
Department of State.....	114
Treasury Department.....	114
Veterans Administration.....	114
American National Red Cross.....	114
Civil Defense in Our Future National Security.....	115

## APPENDICES

Civil Defense Abroad.....	117
Cooperation With Foreign Countries.....	123
FCDA Advisory Committees.....	126
Executive Order 10346.....	129
Public Education and Training Materials Produced by FCDA.....	131

## CHARTS, GRAPHS, AND TABLES

The National Civil Defense Pattern.....	14
Authorization to Civil Defense to Combat Natural Disasters—State Laws now in Effect.....	20

CONTENTS

v

	Page
Status of Interstate Civil Defense Compacts—1952 Compared With 1951...	22
Workmen's Compensation for Civil Defense Personnel—State Laws Now in Effect.....	28
Table A.—Source of Funds.....	32
Table B.—Detail of Federal Funds and Obligations.....	32
Table C.—Details of Federal Contributions to States and Territories.....	34
Table D.—Comparison of Federal Funds Allocated to the States for Match- ing Purposes With the Amounts Requested by the States.....	37
Table E.—Obligation of Operations Funds by Programs.....	39
Table F.—Obligation of Operations Funds by Object Class.....	39
FCDA Employees on Duty—Washington and Field—1952.....	40
1952 FCDA Visual Presentations Through Exhibits and Television.....	44
The Alert America Convoys.....	46
Cities Visited and Attendance Figures on Alert America Convoys.....	48
Newspaper Preparation for Emergency Operation.....	50
Civil Defense Personnel Enrolled and Currently Assigned to Civil Defense Duties, Report by Services.....	56
Civil Defense Personnel Enrolled and Currently Assigned to Civil Defense Duties—Summary by FCDA Region and State as of August 31, 1952...	63
Civil Defense Instruction in U. S. Elementary and Secondary Schools....	66
Basic Rescue Set for Community Training.....	70
1952 Gains in Target City Warning Systems.....	80
1952 Medical Supply and Equipment Purchases on the Federal-State Matching Funds Program.....	92
Federally Purchased Medical Supplies.....	94
1952 Fire Equipment Purchases on Federal-State Matching Funds Program.....	97

## A FEW CIVIL DEFENSE HIGHLIGHTS OF 1952

1. *Operational Readiness of States and Cities.* Nearly 2,000 civil defense exercises were conducted by cities and entire States in 1952. These involved 2,000,000 civil defense workers and 42,000,000 citizens.

2. *Operational Readiness of FCDA.* Under its plan for emergency operations, FCDA in 1952 activated two operating emergency locations and installed emergency communications facilities. FCDA now has the physical facilities for operating under attack conditions in close coordination with its regions and the States and with other key security agencies of government.

3. *Attack Warning.* In critical target areas, capability of giving attack warning more than doubled in 1952. An air-raid alert now can be given through sirens and whistles to more than 40 percent of the critical target area population in a matter of minutes from the USAF air defense control centers via the civil air-raid warning network now operated by FCDA.

4. *Public Emergency Radio Broadcasting.* In cooperation with the Federal Communications Commission and the United States Air Force, plans were completed in 1952 for the CONELRAD system which assures continuity of public emergency radio broadcasting for civil defense purposes under attack conditions while denying use of those facilities as an enemy navigational aid. CONELRAD will be operational in the spring of 1953.

5. *Public Knowledge.* Public knowledge of the need for survival action increased in 1952. Several million more American families undertook individual and group preparedness activities. Fifty-two million adults now know a few of the simple things they should do in order to protect themselves against atomic attack. Four-fifths of the people in rural areas are willing to help people in stricken cities. Sixty-four million adults believe that civil defense is necessary now and would be effective against atomic warfare.

6. *The "Alert America" Convoys.* During the first 9 months of 1952, three "Alert America" Convoys traveled throughout the United States. More than 1,100,000 people in 82 cities attended these travel-

ing exhibits which served as a major means of bringing civil defense information to, and increasing public interest and participation among the 67,000,000 residents in the areas visited.

7. *Civil Defense Workers.* In 1952, the number of civil defense workers more than doubled. Now an estimated 4,000,000 serve in the local and State Civil Defense Corps, collectively known as the United States Civil Defense Corps.

8. *Pledge for Home Defense.* More than 110 national organizations cooperated in 45 States and territories in the "Pledge for Home Defense" campaign. Many of their members registered their availability for future civil defense work, and pledged personal and family preparedness in home defense.

9. *Civil Defense Training.* Some 200,000 specialists and instructors were graduated from 650 local schools in courses sponsored and organized by the States and cities; 3,218 civil defense instructors and 581 officials were graduated from the FCDA training schools and staff college. During 1952, FCDA opened at Olney, Md., the first school for advanced rescue instruction, built around scientifically designed American structures simulating wartime damage conditions.

10. *Civil Defense in Schools.* Civil defense education programs in elementary and secondary schools increased markedly in 1952. A survey of more than 1,400 schools across the Nation showed almost 90 percent participation.

11. *Emergency Supplies and Equipment.* Through the Federal contributions program in 1952, States and localities were able to make a start in increasing readiness in attack-warning and communications equipment, fire-fighting equipment, rescue equipment, training and education materials and equipment, and medical supplies and equipment. A total of some \$45,000,000 was invested in these essential civil defense supplies, half of it State and local. A start was also made in 1952 on Federal reserves of engineering and medical supplies and equipment. The medical supplies, now on order or delivered, will afford minimum care to nearly 2,000,000 casualties for the first week.

## HOMEFRONT PREPAREDNESS—THE SECOND YEAR

This progress report on Federal Civil Defense Administration and the national Civil Defense program during 1952 is one about which reasonable men may honestly differ. Some will read it with real satisfaction in comparing our current state of readiness with that of just one year ago. Others, contrasting our present state of civilian readiness with what would be required in the event of all-out attack on this country with new and more powerful weapons, will take this report as reason for justified alarm.

Civil Defense has made real progress despite its newness, lack of funds, and other handicaps. Yet, those who live with Civil Defense are acutely aware of how much more remains to be done before America has the kind of civil defense that will be a formidable force either to keep the peace or to help win a war.

Civil Defense preparedness can be a major force in helping keep the peace. This vital reason for civil defense in being has been determined by the National Security Council in weighing the balance of security forces in modern war. Unity, strength, and preparedness on the homefront can help prevent attack on this country.

On December 23, 1949, President Truman announced that an atomic explosion had recently taken place in the Soviet Union. From that moment on the program for civil preparedness, particularly against nuclear weapons, became an urgent need for our total national security program.

Federal plans for civil defense were given high priority from the moment of the announcement that the Soviets possessed the atomic bomb and Civil Defense soon moved into its first phase of independent operation under National Security Resources Board. Intensive studies by the Congress, the Department of Defense, NSRB, and other security groups reached the inescapable conclusion that the major responsibility of this new homefront defense *against* nuclear and other types of modern weapons must be *civilian*.

In testimony to the Congress, General Omar Bradley stated: "The Joint Chiefs feel that Civil Defense itself is not a military but rather a civil responsibility." The Joint Chiefs of Staff and the military establishment recognized that our Armed Forces could not be diverted from their primary mission of carrying the war to the enemy, in case we are attacked.

The complexity of Civil Defense in modern war was starkly apparent to our military experts, scientists, Government security planners,

and to the Congress. They agreed unanimously that the civilian population and its duly constituted authorities must develop a civilian civil defense program capable of enabling America to withstand the shock and disaster from any combination or weight of modern weapons which an enemy could use against us. Unless this kind of homefront preparedness program could be built rapidly, our military program might be wasted. Consequently, the Federal Civil Defense Administration was established by Public Law 920 of the Eighty-first Congress in January 1951.

This, then, is only the second Annual Report of the newest senior partner in our national security program. Our armed services have a history of nearly two centuries. Our industrial mobilization program, in a modern sense, dates back to World War I.

The American homefront is far from ready to meet an all-out enemy attack. However, it is measurably more ready than it was one short year ago. Despite severe handicaps, the State, Territorial, city, and county directors of Civil Defense and their meager staffs have completed the foundation of the national Civil Defense program during the past year.

In this year, American civil defense generally has now moved from the blueprint stage into the initial operational stages. Civil Defense planning, however, can never stop because of the ever-changing nature of the threat and the continuing development of new weapons and techniques of war.

Today's measurable degree of operational readiness throughout the Nation is more marked in some States and cities than it is in others. It cannot be said, however, that any State or city is anywhere near ready to cope with the grave consequences of attack with modern weapons.

This report does not attempt to cover each individual detail of Civil Defense progress in the United States. Civil Defense touches every aspect of American community life. However, much of what is being done locally today in Civil Defense falls outside of the Federal Government's limited reporting structure. The multiplicity of State and city civil defense activities makes it impossible to gather more than the highlights of local accomplishment. This report, therefore, represents a compendium of the most significant available information on what has and has not been done.

1. *Individual and Family Participation in Civil Defense.* Individual citizen action has made marked progress in two areas—family preparedness and volunteer participation in the Civil Defense services. Several million more American families have begun educating themselves and their children in self-protection and preparing

their homes. Over four million citizens are now in the active civil defense services, more than double the number in the previous year. These remarkable gains in public survival education and volunteer service resulted from the cooperative program of the Federal, State, and local governments and public service support from industry and the Nation's national organizations.

The foundation for much of this progress has been the remarkable public service support of the public information media—the Nation's newspapers, radio and TV stations, magazines, advertising and motion pictures.

2. *State and Local Operational Readiness.* Organized Civil Defense operational readiness has increased sharply in 1952. Incomplete records show that nearly two thousand operational exercises were conducted by cities and entire States during the year. These exercises include city air-raid alert tests, mutual aid and mobile support exercises, combined exercises with the military services, and command post exercises. This figure, of course, does not include a far greater number of Civil Defense tests and drills held under private auspices in schools, hospitals, business establishments, and manufacturing plants. These privately sponsored exercises are a vital, inherent part of the over-all picture of national readiness on the homefront.

3. *Mobilization of Other Government Agencies for Civil Defense.* There has been major progress in mobilizing the facilities of other government agencies and enlisting their cooperation and participation in programs of common interest in national defense. For example, the United States Department of Agriculture has accepted responsibility for and is cooperating in developing a national emergency food supply program; the General Services Administration has developed and tested plans for civil defense protective measures for government buildings; and is operating FCDA's six warehouses. The Department of Interior's Petroleum Administration for Defense is developing procedures for the protection of petroleum products and supply. The Office of Defense Mobilization and the Defense Transport Administration are cooperating with FCDA in formulating national plans for emergency domestic transportation.

4. *Emergency Reserves and Stockpiling.* Some progress was made in building up stockpiles to help meet the extraordinary demands for medical and other supplies and equipment which would be needed in the event of an enemy attack. Because of the Federal stockpiling program, nearly \$67 million worth of civil defense supplies and equipment, primarily medical, are now in production or in Federal warehouses. Further, FCDA assisted the States in the procurement of nearly \$45 million worth of organization equipment, medical supplies,

and training materials which gave greater impetus and reality to civil defense readiness.

Last year, in its first annual report to the Congress, FCDA reported that a strong national civil defense rests on four major principles. Here is a brief appraisal of what has been accomplished in these four areas during 1952:

1. *A Well-Informed Public.* The American public is much better informed on measures for personal protection in case of enemy attack but there continues to be over-optimism about the amount of protection which could be expected from the Armed Forces in time of war. The concept of civil defense is reasonably well understood by about half of the people. Realization of the need for such homefront preparedness is high. Residents of metropolitan areas where civil defense has been most active are the best informed factually on personal protective measures and civil defense activities. The proportion of people informed on civil defense and self-protection in the rural areas is somewhat less than in urban centers. Public participation programs such as air-raid drills have had a marked effect in teaching people the air-raid warning signals and in making them more aware of the need for civil defense.

The greatest increase in public understanding has been in knowledge of protection against atomic weapons. Much remains to be done to increase substantially public awareness of and preparedness against the other major weapons of modern war now known to be in the hands of our enemies. There is far from adequate public preparedness against the threats of biological and chemical warfare, mass sabotage, and psychological warfare. Each of these poses a major danger which must be dealt with both in terms of public self-protection and the organized civil defense services.

2. *A Trained Civil Defense Corps.* Emphasis in the past year has been on enrolling, training, and assigning to duty a hard-core nucleus of trained civil defense workers that could be rapidly expanded. The current hard-core civil defense organizational requirements are estimated at between 5 and 7 million men and women. Over fifty percent of this goal has been reached—more than 30 percent of it during the past year. The peacetime nucleus includes (a) State and municipal employees and personnel in certain key utilities who have specific civil defense assignments, (b) civilian volunteers who serve as auxiliaries to such regular forces, and (c) those needed to staff civil defense services which have no counterpart in peacetime government such as the Warden and Rescue Services.

While most of the four million members now serving in local Civil Defense organizations have received basic training or are enrolled for training, current operational training requirements have

and training materials which gave greater impetus and reality to civil defense readiness.

Last year, in its first annual report to the Congress, FCDA reported that a strong national civil defense rests on four major principles. Here is a brief appraisal of what has been accomplished in these four areas during 1952:

1. *A Well-Informed Public.* The American public is much better informed on measures for personal protection in case of enemy attack but there continues to be over-optimism about the amount of protection which could be expected from the Armed Forces in time of war. The concept of civil defense is reasonably well understood by about half of the people. Realization of the need for such homefront preparedness is high. Residents of metropolitan areas where civil defense has been most active are the best informed factually on personal protective measures and civil defense activities. The proportion of people informed on civil defense and self-protection in the rural areas is somewhat less than in urban centers. Public participation programs such as air-raid drills have had a marked effect in teaching people the air-raid warning signals and in making them more aware of the need for civil defense.

The greatest increase in public understanding has been in knowledge of protection against atomic weapons. Much remains to be done to increase substantially public awareness of and preparedness against the other major weapons of modern war now known to be in the hands of our enemies. There is far from adequate public preparedness against the threats of biological and chemical warfare, mass sabotage, and psychological warfare. Each of these poses a major danger which must be dealt with both in terms of public self-protection and the organized civil defense services.

2. *A Trained Civil Defense Corps.* Emphasis in the past year has been on enrolling, training, and assigning to duty a hard-core nucleus of trained civil defense workers that could be rapidly expanded. The current hard-core civil defense organizational requirements are estimated at between 5 and 7 million men and women. Over fifty percent of this goal has been reached—more than 30 percent of it during the past year. The peacetime nucleus includes (a) State and municipal employees and personnel in certain key utilities who have specific civil defense assignments, (b) civilian volunteers who serve as auxiliaries to such regular forces, and (c) those needed to staff civil defense services which have no counterpart in peacetime government such as the Warden and Rescue Services.

While most of the four million members now serving in local Civil Defense organizations have received basic training or are enrolled for training, current operational training requirements have

not been met despite much realistic action at State and local levels. The highly specialized needs of civil defense against modern weapons must be met with intensive, continuous training, not unlike that received by the military forces.

3. *Adequate Tools to Do the Job.* Here is where the national civil defense program falls far short of its minimum readiness goals and where the greatest imbalance exists in relation to other national security programs and their mobilization goals as established under the National Security Council. The Nation's civil defense forces cannot cope with atomic warfare without adequate supplies any more than our military forces can. To deny the public adequate shelters in case of attack, and adequate warning systems to get the air-raid alert is as illogical as to deny the Armed Forces radar and interceptor planes.

4. *A High State of National Readiness.* As indicated earlier in this chapter, a great deal has been accomplished in planning the mobilization and deployment of the Nation's vast manpower and resources to meet and recover from enemy attacks.

Despite only 2 years of preparation, national civil defense is now an integral part of America's national security program. Civil defense foundations are as solid as they are essential to our survival as a Nation. This transition from the planning and preparatory stages into measurable operational readiness during 1952 has been accomplished in a calm, undramatic, and realistic way. Civil defense leaders, despite severe handicaps, have continued to avoid sensationalism or scare techniques in educating the public and in maintaining the interest of civil defense volunteers.

America's governors, mayors, and civil defense directors have supplied the dedicated leadership necessary to this grass-roots program of home defense. These officials have recognized Civil Defense as a nonpartisan, nonpolitical security program which the Nation must have if it is to keep the peace or win a war.

The long-range prospects for adequate civil defense are good. Progress to date is valid evidence to the world that the American people are more than willing to shoulder their personal and community responsibilities in national security and in peacetime disasters. The civil defense organizations already in existence have functioned successfully in many major disasters and will prove a growing force to preserve lives and property.

Civil defense today, however, has many weaknesses and deficiencies. It will take strenuous effort at every level of government and in every community to increase the pace of our homefront preparedness to attain balance with other defense programs. A strong civil defense program can become a major factor in preventing war or prove to be a real "coequal partner with the military" if war does come.

Once every citizen is convinced that he is the source of our national strength and consequently the prime target of our future wars, civil defense will come into its own. When our national leaders recognize how little time, effort, and funds are necessary for adequate civil defense in relation to military defense, the imbalance now existing between them will be removed.

## INITIAL CIVIL DEFENSE ATTACK ASSUMPTIONS

Security information and military intelligence are the bases for the development of a realistic and flexible series of civil defense attack assumptions which serve, in a sense, to define and delimit the civil defense problem. These attack assumptions, of course, have to be changed as the need arises. Based on this material, it is possible to develop plans and programs which will permit maximum reduction of damage even though new information on enemy capabilities may materially alter the initial attack assumptions.

These initial civil defense attack assumptions are neither a dramatic overstatement of the problem or a retreat from the reality of growing Soviet capabilities.

1. *Type of Attack.* It is accepted that the Soviet Union is capable of striking any target within the United States. It is assumed for planning purposes that such an attack, if it comes, will consist principally of nuclear weapons delivered by air, and detonated above the ground during normal working hours. It is further assumed that high explosive and incendiary bombs will also be used, that sabotage will be employed, and that biological and chemical weapons will be used. Psychological warfare of all kinds also will be used to disrupt defense programs, impair production, create panic, and weaken our will to resist overt attacks.

If this country is attacked, the primary objectives will be to destroy our war production capacity and our will to resist. The most probable method of attaining this is through attack on our centers of industry and population. Since nuclear weapons are the most effective method of sudden mass destruction presently known, it is probable that the enemy would rely mainly on them. At present, the most reliable means of delivery is the long-range bomber, and although nuclear weapons might be delivered by means other than aircraft, their effect is much the same whether they are launched from submarines or surface ships, brought into ports or other places clandestinely, or dropped from aircraft.

Special measures to meet large-scale biological and chemical attacks are a continuing necessity. In the field of psychological warfare, Civil Defense must be prepared to meet a flood of false rumors, disseminated by word of mouth, leaflets, and clandestine radio operating under the name of known stations.

It is assumed that any type of attack will be accompanied by attempts at sabotage of industry and communications, but the effects of such covert activities will probably be minor as compared with those of overt attack.

2. *Size of Initial Attack.* It is assumed that the initial airborne attack will be by about 400 bombers, which will carry enough nuclear and conventional bombs to hit all of our major metropolitan industrial areas. It is further assumed that the initial attack will be followed by others, and that a large proportion of all weapons carried will be delivered on the targets. This assumption is within the accepted capability of the Soviets. Our Air Force warns that at least 70 percent of the enemy bombers would get through our military defenses.

It is also probable that the initial attack will be in the nature of an attempted knockout blow, and that subsequent attacks will be less heavy. The scale and nature of these follow-up attacks cannot be accurately estimated, since so many incalculable factors are involved, such as the effectiveness of our military defenses and of our retaliatory attacks on the U. S. S. R. We must assume that some recurring attacks will be launched, and that the war will not be a "one-shot" operation.

3. *Bomb Size.* For initial planning purposes it is assumed that 2½ (X) bombs (2½ times as powerful as the Hiroshima A-bomb) would be used. It is recognized that new and larger weapons are imminent but for planning purposes this size weapon has been selected. The Soviets are believed to be capable of producing nuclear weapons of various sizes.

Physical Damage Caused by 2½X Bomb

Zone*	Physical damage	Zone limits (in miles from ground zero)	Zone area of damage (in square miles)
A	Buildings destroyed.....	0 to .65.....	1½
B	Buildings require demolition.....	0.65 to 1.35.....	4½
C	Buildings require vacating for repair..	1.35 to 2.0.....	7
D	Buildings need not be vacated.....	2.0 to 2.7.....	10

\*Zones refer to the pattern of concentric rings whose center is ground zero.

4. *Casualties.* It is assumed that casualties, in a daytime attack, with warning, will average 110,000 killed and wounded per 2½ (X) bomb, of whom roughly ⅔ or 73,000 would survive the first 24 hours, and about ½ or 55,000 would eventually recover.

Previous estimates used by FCDA assumed average casualties of 175,000 from an attack without warning, and without adequate civil defense. With the protection of an adequate civil defense program, it is believed that a 50 percent reduction in casualties is a reasonable assumption. This assumption was based upon the average population density, or resident population, in our major cities.

Recent Bureau of the Census studies show the extent of migration into cities during working hours. This increase in population will vary from 10 percent to as much as 100 percent, depending upon the individual city. An average figure would be slightly over 20 percent. Then the casualty estimate of 175,000 would become about 220,000 for a daytime attack without warning.

5. *Warning Time.* It is assumed that civil defense officials will receive some warning of an impending air attack. Although complete surprise is possible, it is assumed that approximately 15 minutes warning can be given to the public. If it is possible, more warning time will be given to the public.

As the installation of radar nets and other detection measures progresses, the possibility of complete surprise will decrease. It will never disappear entirely, however, and no one can ever guarantee all parts of the United States against surprise attack. Surprise is most likely to be achieved in an attack by guided missiles or other covert means.

6. *Target Areas.* It is assumed that large concentrations of industry and people will be major enemy targets for attack with nuclear weapons.

The atomic bomb and chemical warfare are weapons of mass destruction most efficiently used on large targets, such as our standard metropolitan-industrial areas, with their high concentrations of population and industry. Biological warfare can be efficiently used against urban and rural areas and populations.

Based on Census Bureau and Department of Labor statistics, there has been drawn up a list of 191 potential atomic target areas in the continental United States, the territories and possessions, including State and territorial capitals which do not qualify as standard metropolitan areas.

Of the 191 areas, the 67 which contain the highest concentrations of both industry and population are designated "critical target areas," since they are assumed to be the most likely targets. The return per bomb in casualties and damage would be greatest there, and the shock effect on our industry and commerce in general would also be greater than in other target areas. Nearly half the population of the United States lives within these 67 areas, although they comprise less than 3 percent of the total area of the Nation. An even higher proportion of defense industry is located within their boundaries.

Within the critical target areas, there are 89 major cities which are regarded as probable aiming points. These cities are regarded as the focal points for the development of civil defense operational programs.

There are many areas containing facilities and installations which are attractive targets from a military standpoint, but which are not designated as Civil Defense target areas. The primary objective of civil defense is to minimize casualties and damage resulting from enemy attack. The areas of greatest danger are the large centers of population and industry. The problems raised by attacks on smaller centers are less staggering than those in the critical target areas, which must receive priority in Civil Defense planning.

7. *Probable Targets.* For planning purposes it is assumed that each of the 67 critical target areas will be struck by at least one 2½ (X) bomb. Further, each of the standard metropolitan areas of 700,000 population or over would be an attractive target for more than one atomic bomb.

It must be realized that the total number of bombs involved in this assumption has no connection with the estimates of the Soviet bomb stockpile at any given date. The exact number and location of the actual targets in an attack could not be known in advance. All critical target areas are potential targets. Therefore, all must be as fully prepared as possible.

8. *Non-Target Area Support.* It is assumed that any community or State attacked will require outside support to cope with an atomic attack. This is a major premise in the operation of civil defense. The capabilities of atomic and other weapons are so great that any attack, if successful, would result in damage and casualties far beyond the resources of any community.

Assistance to attacked areas must come from outside those areas. It must be organized in advance of an attack in order to be immediately available when required. This means that available resources of the entire country, outside potential target areas, as well as within them, must be geared to the civil defense system.

9. *New Weapon Developments.* The national Civil Defense programs planning base is under constant review and revision, based on scientific data, plus security and military estimates of modern weapon developments in our hands and in the hands of the enemy. On the grounds of evidence supplied by the National Security Council, FCDA as a key agency must continue to weigh new weapons development and their potential Civil Defense effects, particularly when such data is directly related to growing enemy capabilities.

## THE NATIONAL CIVIL DEFENSE PLAN

National plans and programs for the effective civil defense of the United States are a primary responsibility of the Administrator of the Federal Civil Defense Administration, under Public Law 920 of the Eighty-first Congress.

This law specified that the operational responsibility of civil defense would be vested primarily in the several States and their political subdivisions, but that the Federal Government would provide the necessary leadership, coordination, and guidance to bring about a national civil defense program.

The entire purpose of the Civil Defense Act was to create throughout this Nation an organized, planned program of *people and things* which could function positively to minimize the effects of any possible attack on our country.

The planning done by the Federal Civil Defense Administration is continuous and takes into consideration the unending scientific struggle between new and bigger weapons of destruction and adequate, homefront defense countermeasures. It covers almost every phase of our national existence in developing comprehensive programs at Federal, State and local levels to protect life, property and production in the event of enemy attack. Most of the necessary plans are in effect throughout the country. The degree to which they are operational varies markedly, but something is being done in every program area and in every part of the country today.

The civil defense plan covers two phases:

### 1. National Civil Defense Preparedness Before Enemy Attack

The magnitude of possible attack on this country makes it essential that the greatest possible advance preparation be accomplished before any such attack can occur. This requires advance preparedness of both "people" and "things."

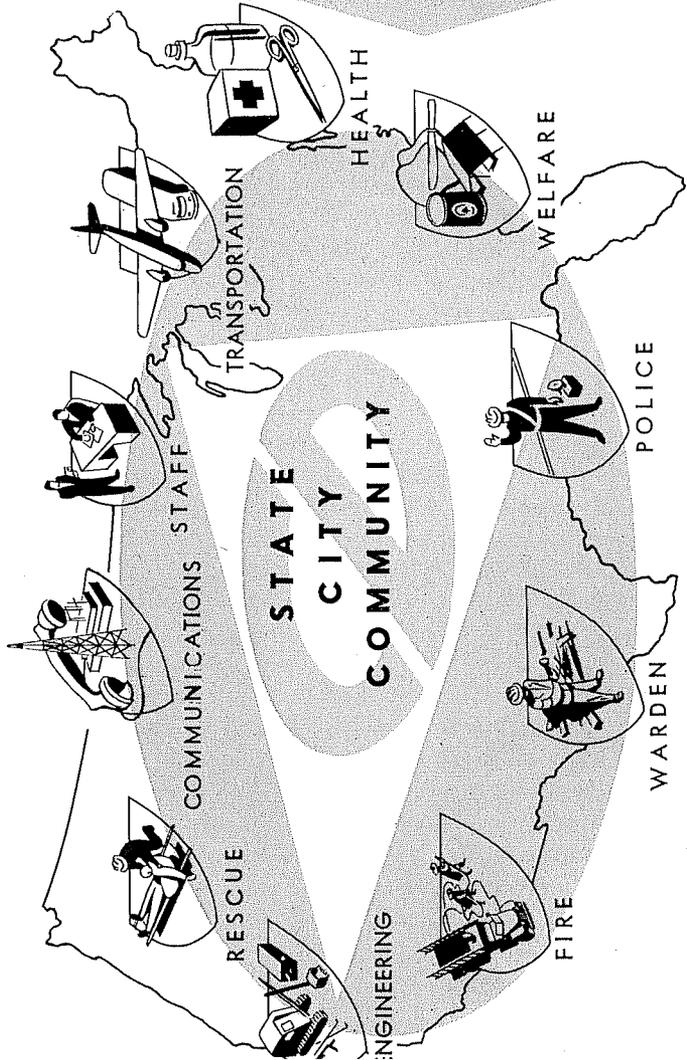
The following major activities are designed to prepare "*people*" against possible attack:

(a) Public civil defense education and information—to give all Americans, no matter where they live or work, the facts they need to know about the possible dangers they face and the actions they can take to increase their own safety and their country's security.

# THE NATIONAL CIVIL DEFENSE PATTERN



- OPERATIONS
- PUBLIC INFORMATION
- EMERGENCY SUPPLIES AND EQUIPMENT
- PLANNING
- TRAINING AND EDUCATION
- MATCHING FUNDS



**STATE  
CITY  
COMMUNITY**

(b) Training and test exercises—to train the hundreds of thousands of civil defense workers in their specialized skills and to test this training through operational exercises.

(c) Stimulation of volunteer recruitment—to recruit civil defense volunteers around the nucleus of municipal, State and Federal employees.

(d) Technical and operational guidance to civil defense organizations—to develop a uniform approach to technical and operational problems throughout the various States through field work, and the distribution of scientific technical information.

(e) Federal agency coordination—to develop plans for integrating the skills and personnel of other Federal agencies into the civil defense program.

(f) International coordination—to strengthen operational agreements with Canada and increase the interchange of newly developed Civil Defense information with other allied countries.

Readiness in “*things*” includes the following:

(a) Development of attack-warning systems—to complete as rapidly as possible the installation of sirens, whistles, horns, and other mechanical means of alerting the Nation to actual attack.

(b) Inventorying and earmarking existing equipment for Civil Defense use—to inventory and earmark for possible civil defense use materials, equipment, and supplies which could be used in a civil defense emergency.

(c) Federal reserve stocks of medical and engineering supplies and equipment—to develop stockpiles of critical medical and engineering stocks located at strategic points throughout the country to back up State and local stocks.

(d) Contributions to States for civil defense equipment—through a contributions program to enable States and municipalities to overcome severe shortages in Civil Defense equipment.

(e) Transportation and communications coordination—to develop plans and mechanisms to make maximum use of existing transportation and communications systems to meet the needs of a civil defense emergency.

(f) Plans and contributions for protective shelters—to develop a protective shelter program in critical target areas by three actions: (1) locating existing shelter; (2) modifying existing buildings; and (3) constructing new shelters as required.

(g) Determination of weapons effects—to study current nuclear and other weapon developments and apply such data to the civil defense problem.

(h) Federal agency resources planning—to inventory, earmark, and mobilize via agencies concerned the physical materials, equipment and supplies now under Federal control for logistical support of State and local civil defense.

(i) Civil Defense industrial preparedness—to develop with industrial plants and institutions, plans and procedures for their own self-protection to protect both skilled workers and equipment.

(j) Standard specifications—to develop standards for hundreds of civil defense items in order to assure uniformity and interchangeability of use anywhere in the United States.

These are the basic requirements of a National Civil Defense Plan for action prior to enemy attack. Backed by adequate appropriations, they are designed to prepare the United States in advance for any contingency in the way of enemy assault, whether it be by conventional bombing or by nuclear weapons, biological, or chemical warfare.

## **2. National Civil Defense Operations During and Immediately After Attack**

This part of the national civil defense plan goes into operation automatically upon the invocation of Title III of Public Law 920, which can be set in motion only through the declaration of a civil defense emergency by the President, or by concurrent resolution of the Congress.

Attack and postattack preparations also have two major parts, which must be geared to the intent of Congress in passing the Civil Defense Act. Under the law, the States and their political subdivisions have primary responsibility for the actual operation of civil defense. The Federal Government, in addition to planning and guidance, is responsible for the logistical support of the States and the coordination of interstate, interregional, and international movements of supplies and personnel where applicable.

Plans have been developed for (a) the emergency operations of nine FCDA regional offices, and (b) the emergency functions of FCDA national headquarters. Highlights of these are as follows:

FCDA regional offices are responsible for:

(a) Collection, evaluation, and forwarding of damage and other civil defense reports to FCDA headquarters—emergency communications systems have been established for the prompt relay of operational information and intelligence to FCDA's central headquarters in event of attack.

(b) Determination of priorities of need and coordination of interstate movements of civil defense reinforcements—regional offices are basing their operational plans on increasing knowledge of the availability of civil defense forces in the States and cities in their areas.

(c) Control and allocation of Federal civil defense reserve stocks within each region—as Federal reserve stocks of supplies and equipment are delivered to FCDA warehouses within a region, tentative allocations are worked out to meet various forms of possible attack.

(d) Coordination of the use of other Federal agency resources within a region—under the authority of Executive Order 10346, regional offices of FCDA are making arrangements with other Federal regional offices for effective use of government personnel and resources in a civil defense emergency.

(e) Financial assistance—the FCDA regional offices administer such financial assistance plans as are approved by the Administrator.

At FCDA national headquarters, the Administrator and his staff are in operational readiness for:

(a) Determination and direction of civil defense activities throughout the Nation and control during an attack of the interregional movements of supplies and personnel.

(b) Coordination of Federal civil defense activity with other national security operations—a comprehensive communications network has been established to link FCDA emergency headquarters with similar headquarters of other key government agencies.

(c) Gathering and disseminating civil defense information to the public through the national channels of the public media—the Conelrad plan assuring continuation of public emergency radio broadcasting is a major step forward.

Each of the above elements of the national civil defense plan breaks down into many individual steps. For example, the development of an emergency mass feeding plan requires planning at the Federal level which extends through the States and into the hundreds of communities which may be involved. It is necessary to locate places to which people will be taken for emergency feeding and housing. It calls for organizing volunteer workers to acquire, transport, and prepare food under emergency conditions.

Plans are being worked out at practically every level of government and industry—plans for the over-all procurement of food by the Department of Agriculture, transportation plans developed under the auspices of the Office of Defense Mobilization, distribution plans through the food industry, and plans for emergency transportation and operating facilities at the local level.

This type of planning for practically every type of disaster relief and emergency operation is rapidly translating itself into operational

readiness throughout the country today. Much has been done toward physical preparedness, but much more remains to be done. The national civil defense plan is geared to the resources of America and operated as directed under Public Law 920. Its success depends, to a great degree, upon the continuing activities of the States and localities, as well as the constant cooperation of all agencies of the Federal Government.

## THE STATES AND CITIES IN ACTION

During 1952, in many of the States, counties, cities, and towns, civil defense plans were translated into action as nearly 2,000 disaster drills were held under simulated wartime conditions. These drills undertook to show, and in general proved, that civil defense operational machinery is sound.

Practical proof came from another and unexpected source. The people found out for themselves that, even with minimum civil defense training and organization for individuals in the home, they could take peacetime disaster in stride. Major peacetime disasters in the form of fires, earthquakes, storms, air and highway crashes, and Nation-wide spring floods, created a sore need for disaster aid. Organized civil defense gave prompt and adequate assistance.

In 1952, the Nation acquired a major new community dimension in the peacetime pay-off of practical civil defense. Aircraft spotters gained experience in helping to plug the holes in our radar screen. Police and firemen called on civil defense auxiliaries in fire and traffic emergencies as a matter of course. Schools added civil defense survival courses. Critical emergency supplies grew in stockpiles at a few strategic points. Civil defense control center operations proved to be unprecedented as a means of one-point disaster coordination.

Civil defense examined itself critically under fire in 1952. The public, in turn, examined civil defense. What it saw was, for the most part, factual and encouraging.

### Peacetime Disasters

"Everyone I have talked to," said radio-TV commentator Edward R. Murrow covering the Missouri floods in April, "has said the key to this whole business, the reason we raised 13 miles of levees 3 feet in 6 days, the reason we evacuated the people so smoothly, the reason there was no declaration of martial law, the reason for almost everything came back to *the civil defense organization.*"

"I think it may be the real story of this struggle," Mr. Morrow continued. "The civil defense people here didn't just make plans to deal with a bombing attack. They trained four battalions of auxiliary firemen. They told people how to put out little fires before they became big ones. They trained 400 auxiliary police, minimum



training period, 40 hours. Those are the men who have been handling traffic. The established police force couldn't have done it.

"Civil defense tried to train at least one person in each home in a matter of first aid, and the safety record in the incredible operation is magnificent."

Such peacetime use of civil defense was commonplace by the end of the year, and resulted in some re-evaluation of State civil defense legislation, as well as some revision of local civil defense plans and authority. Thirty-two States and four Territories and possessions now have laws permitting their civil defense forces to be used in peacetime disasters. (See facing page.)

In February, major air crashes in Elizabeth, N. J., saw civil defense volunteers, identified in some cases with "CD" insignia, assisting in rescue, welfare, communications, fire fighting, and policing. Volunteer response was so heavy that the State director ordered civil defense staff and volunteer workers to respond to peacetime disasters only when issued specific calls to duty.

In March, the Arkansas tornado disaster created emergency need for mass welfare services and workers, and many civil defense volunteers responded. Careful evaluation of the situation by the Governor and civil defense director of the State, who toured the area, led to the conclusion that a coordination of other welfare organizations with civil defense would have resulted in less wasted effort and more adequate aid.

In April, the disastrous spring floods broke any reluctance to the use of civil defense organizations in peacetime disasters. With every section of the country affected almost simultaneously, civil defense was in several instances the only available source of trained and organized workers. Civil defense radio "hams" and other communications workers, fire fighting and police auxiliaries, teams of rescue, engineering, transportation, welfare, and health workers performed invaluable services.

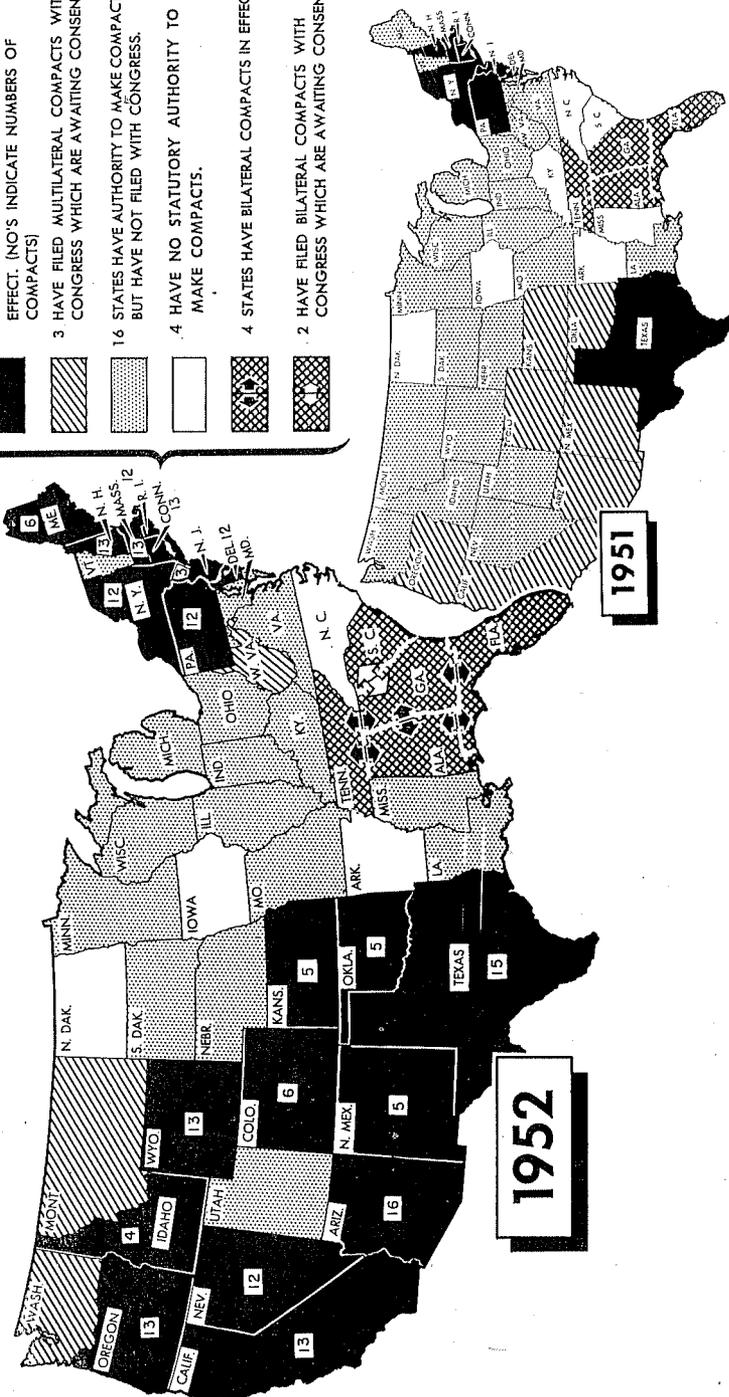
"This was natural disaster at its worst," said an official observer in the Omaha area, where the Missouri River displaced 87,000 persons, flooded 50 communities, breached 153 levees and flooded over 2 million farm acres, "but civil defense in that area had been so well organized that it was able to step right in and do a job—the entire Nation can look with pride at what civil defense accomplished."

The FCDA regional director in the Pacific Northwest, in anticipation of spring floods, established a mobile field headquarters team to operate at the scene of potential disaster and made extensive advance plans with three State civil defense directors to meet the situation.

# STATUS OF INTERSTATE CIVIL DEFENSE COMPACTS

DECEMBER 31, 1952

- 20 STATES HAVE MULTILATERAL COMPACTS IN EFFECT. (NO'S INDICATE NUMBERS OF COMPACTS)
- 3 HAVE FILED MULTILATERAL COMPACTS WITH CONGRESS WHICH ARE AWAITING CONSENT.
- 16 STATES HAVE AUTHORITY TO MAKE COMPACTS BUT HAVE NOT FILED WITH CONGRESS.
- 4 HAVE NO STATUTORY AUTHORITY TO MAKE COMPACTS.
- 4 STATES HAVE BILATERAL COMPACTS IN EFFECT.
- 2 HAVE FILED BILATERAL COMPACTS WITH CONGRESS WHICH ARE AWAITING CONSENT.



Similar emergency aid teams were organized in other Federal regions to serve at the request of the States.

In New Hampshire, the State civil defense director warned of heavy snow accumulations in the mountains, made plans as early as April 1 for civil defense aid in evacuation, welfare, and other relief measures.

During the floods the Governors of Nebraska, Utah, North Dakota, and South Dakota, were among the first to appoint their respective State civil defense directors as administrators of all flood disaster operations. In California, Iowa, Kansas, Louisiana, Minnesota, New Hampshire, Nevada, Oregon, Pennsylvania, Vermont, and Washington, civil defense workers acted under various interpretations of disaster authority.

### **Exercises, Tests, Drills, Alerts**

Public participation exercises conducted by State and city civil defense organizations provided one of the best means of operational evaluation. They served also as an invaluable source of training for civil defense volunteer workers, and as a major aid in public education. In nearly every case a direct result of the major exercises was a stimulation of municipal, industrial, and individual preparedness; an increase in volunteer recruiting; and a morale boost for civil defense workers in the area.

Exercises varied from State-wide, full-scale dress rehearsals involving thousands of people to small community and industrial plants, specialized or command post drills for civil defense staffs and volunteer team workers.

Some 163 exercises involving public participation were on a major scale. Careful estimates indicate that over 39 million persons took part. Nearly 3 million persons participated in smaller exercises, making a total of over 42 million persons who had public contact with civil defense in operation. Some 2 million civil defense workers participated in these exercises and received technical training, while another 125,000 volunteers participated in 204 command post specialized exercises.

State-wide participation exercises were held in three States—Connecticut, New Jersey, and Pennsylvania. Thirty other States had intrastate exercises involving one or more counties, target areas, communities, or communities and support areas. Dozens of cities had one or more full-scale, city-wide exercises. Nearly every target-area city held some type of public participation exercise, usually with support area cooperation.

Several sectional drills were held in groups of States—such as the New England States, Northeastern States, far West States—and involved the Ground Observer Corps, radio “hams,” warning signals and general communications. Major exercises of varying types were held in Alaska, the Canal Zone, Hawaii, the Virgin Islands, and Puerto Rico. International exercises were held in the Canadian and United States areas around Niagara Falls and in the Seattle-Vancouver and Detroit-Windsor regions.

Public participation exercises included programs in industrial plants, schools, and other types of institutions. In both public participation and command post exercises, civil defense teams of staff and volunteer workers—aided by State, municipal, and private organization personnel and equipment—carried out engineering, rescue, fire-fighting, police, warden, welfare, transportation, health, and communications assignments under simulated disaster conditions. Evacuations of areas and institutions were effected under all possible conditions. Problems of emergency water supply, emergency mass feeding, mobile support, and location of lost persons were worked out in actual trials. Realism was supplied by use of military aircraft, fire-fighting and rescue equipment, and by simulated bombings and explosions, wreckage, rubble, and fires.

## Highlight Chronology

### January

*Indiana, Illinois, Iowa, Minnesota, and Wisconsin.*—Ground Observers called in 3,000 observations on 800 “enemy” planes.

*Chicago, Ill.*—About 3,000 volunteers took part in air-lift mobile support exercise with 150 Civil Air Patrol planes.

### February

*Boston, Mass.*—City-wide, full-scale test with public participation pronounced a “success” by military and civil defense observers.

*San Francisco, Calif.*—Bay area full-scale test involving 70 political subdivisions.

*Elizabeth, N. J.*—Civil defense volunteers helped out in two air crashes.

### March

*Northeastern States.*—Civil Defense Amateur Radio Alliance conducted “ham” test.

Eighteen Northeastern and Great Lakes States staged ground observer corps drills.

Twelve State Alert tested with cooperation of Eastern Air Defense Command.

*Montgomery, Ala.*—Civil defense rescue truck provided emergency power for local hospital.

*Philadelphia, Pa.*—Civil defense staff and volunteer police, fire, communications, transportation, medical, engineering, and welfare workers assisted municipal departments in fighting major hotel fire.

*Arkansas.*—Civil defense workers furnished major assistance in tornado disaster. "Ham" radio operators kept communications open.

## April

*New York City.*—City-wide, full-scale exercise held with millions participating.

*Panama Canal.*—Fifty-eight minute test initiated by "unidentified aircraft scare."

*Philadelphia, Pa. and support area.*—Major civil defense support exercise.

*Washington.*—Thirty-nine counties and 10,000 volunteers joined in second air-raid alert test.

*Wyoming.*—750 observers conducted GOC test.

*New Jersey.*—First State-wide civil defense exercise in Nation held with 5 million participants.

*Nassau, N. Y.*—Fifty thousand volunteers in nearby target areas participated.

*Vermont.*—State-wide communications exercise held.

*Minnesota.*—GOC exercise held with 4,000 spotters.

*Albuquerque, New Mexico.*—City-wide, full-scale civil defense exercise held.

*California, Iowa, Kansas, Louisiana, Michigan, Minnesota, Nebraska, New Hampshire, Nevada, North Dakota, Oregon, Pennsylvania, South Dakota, Utah, Vermont, and Washington.*—Civil defense organizations played major roles in these States in the spring flood disasters, and played minor roles in other affected States.

*New Orleans, La.*—Civil defense rescue truck made emergency repairs on homes damaged by storms.

*Lancaster, Pa.*—Civil defense volunteers aided police in storm-damaged areas.

*Baltimore, Md.*—Civil defense earned praise for fire-fighting assistance.

*South Dakota.*—Civil defense helped out in snowstorm emergency.

*Orange, N. J.*—Civil defense made emergency traffic survey for police.

## May

*Virgin Islands.*—Alert and shelter tests held on St. Thomas and St. Croix.

*Louisville, Ky.*—Radio stations held communications test.

*Canal Zone.*—Test held with simulated explosion.

*Philadelphia, Pa.*—City-wide, full-scale test held with support areas and industry cooperating. 1,600,000 persons took part.

*Alaska.*—Exercise held involving simulated sea and air attacks testing communications, traffic, warning, and rescue plans.

*Orange, Texas.*—Exercise held with simulated A-bomb dropped from giant bomber and huge mock fires in oil-waste pits. Firemen from 42 cities observed.

*Washington.*—38,000 volunteers responded to State-wide red alert.

## June

*Connecticut.*—Second State-wide, full-scale exercise held with 2 million participants.

*Indiana.*—Several counties observed air-raid alert.

*Philadelphia, Pa.*—Repeat civil defense exercise.

*Rochester, N. Y.*—Area-wide exercise held.

*Massachusetts.*—63 cities and 500,000 persons participated in alert exercise.

## July

*Los Angeles, Calif., and support area.*—18-hour command post exercise held.

*Utica, N. Y.*—Second general alert test held.

*Tehachapi, Calif.*—Civil defense workers earned praise for services rendered in earthquakes.

*Madison, Wis.*—Civil defense workers praised for services in oil plant fire.

*Texas.*—Civil defense workers aided in Orange County clean-up to prevent polio outbreak.

## August

*Niagara Falls area.*—First general international exercise held with 200,000 civilians and 10,000 civil defense volunteers participating.

*Oklahoma.*—First major rural exercise held with emphasis on biological warfare and support area services.

*Western States.*—Eight Western States held command post exercise.

*Virgin Islands.*—Major exercise held.

*Puerto Rico*.—Island-wide exercise held.

*Detroit, Mich.*—Evacuation drill proved successful.

*Rochester, N. Y.*—Third general drill held.

*Pittsburgh, Pa.*—Industrial target areas held alert and shelter drill.

*Waco, Tex.*—Civil defense workers helped in identification and rescue work in two disastrous bus crashes.

*Maderia Beach, Fla.*—Civil defense helped to prevent and clear hurricane damage.

*Roseville, Calif.*—Civil defense mutual aid organization aided in earthquake disaster area.

## September

*Buffalo, N. Y.*—Major exercise held with first atomic emergency edition of daily newspaper describing simulated disaster.

*New York City*.—City-wide alert drill held with many millions participating.

*Oakland, Calif.*—General drill held.

## October

*Northern Virginia and District of Columbia*.—Area alert drill held.

*Connecticut*.—Seven cities and 2,000 volunteers participated in command post exercise.

*Texas*.—Kilgore and Tyler Counties staged general alerts and command post drills.

*Statesville, N. C.*—450 volunteers conducted exercise.

*Pennsylvania*.—State-wide test alert conducted.

*Malden, Lowell, and Pittsfield, Mass.; Charleston and Columbia, S. C.; Cedar Rapids, Iowa; Shreveport and Baton Rouge, La.; Miami, Fla.; Detroit, Mich.; St. Louis, Mo.; and Cleveland, Ohio*.—General command post exercises held.

## November

*Los Alamos, N. M.; Clifton, N. J.; Jackson, Miss.; Portsmouth and Chester, N. H.; St. Louis, Mo.; and Baltimore, Md.*—Command post exercises held.

*Northeast U. S.*—Communications exercise held.

*Boston, Mass.*—Simulated A-bomb disaster test.

*Chicago, Ill.*—400 volunteers assisted in command post exercise.

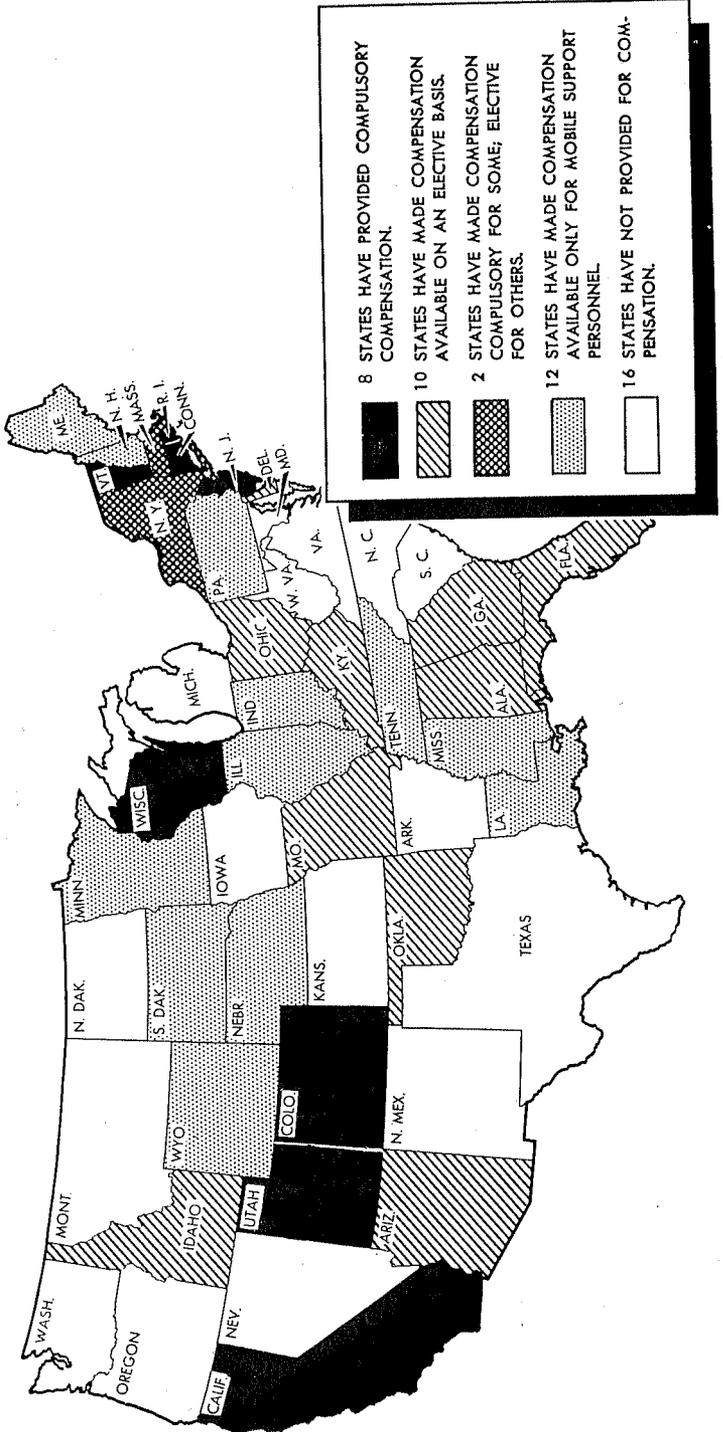
*California*.—Control center test conducted.

*Hawaii*.—Joint military-civil defense exercise "Eversharp."

*Alaska*.—Joint military-civil defense public participation exercise "Warm Wind."

# WORKMEN'S COMPENSATION FOR CIVIL DEFENSE PERSONNEL

(STATE LAWS NOW IN EFFECT)



## December

*District of Columbia.*—Federal agency shelter exercise held.

*New York City.*—Major local and support area test held—400,000 civil defense workers in area participated.

These brief highlights of State and city civil defense during 1952, are but a fraction of the evidence that civil defense is moving forward on a wide front. In addition, States and cities sponsored more than 650 special civil defense schools which graduated nearly 200,000 civil defense specialists and instructors. Two hundred and sixty-five mobile support groups were activated during the year to provide rapid means of moving trained assistance to attacked areas.

This list does not chronicle the *individual* use of civil defense skills—the lives and property saved through such knowledge as emergency fire fighting, first aid, and other safety measures. Nor does it include the contributions of the regional offices and staffs of the Federal Civil Defense Administration.

The sum of these events in 1952 in all States and most communities marks the beginning of *operational* readiness in civil defense. Inadequacies and mistakes were noted in some instances, but these are now being corrected by revised planning and additional drills. Vigorous and accelerated effort still will be needed in 1953 to improve the operations picture.

## Regional Organization

Guidance and assistance were furnished to State and local Civil Defense agencies in 1952 through nine regional offices established by FCDA. Authority has been progressively decentralized to regional directors so that they can exercise strong and effective leadership in both preattack planning and actual coordination of activities across State lines in a civil defense emergency. If necessary, they also will be in a position to function independently within their regions even though cut off from the national office after an attack.

During 1952, authority also was delegated to the regional directors to approve project applications submitted by the States for matching funds under the contributions program. This was further extension of the policy of delegating to the regional offices much of the authority vested in the Administrator.

The regional offices of FCDA directed a large part of their efforts in 1952 toward supplying assistance to the States in developing operational plans. This involved giving technical aid and advice in such areas as emergency welfare, transportation, fire fighting, rescue, engineering, etc.

On the basis of the concept that no State would be self-sufficient in case of attack, the regional offices helped the States to work out agreements providing mutual aid across State lines. (See page 22.) This included not only formal interstate compacts, but also various supplementary agreements as to the details of actual operations.

In all regional civil defense exercises, consideration was given to the way in which available Federal personnel, facilities and equipment could be of assistance to the States. Regional exercises also included arrangements for close cooperation with the military establishment.

Regional offices of FCDA were active during 1952 in helping the States to frame workmen's compensation provisions for civil defense personnel who might be injured in line of duty. (See page 28.)

During 1952, regional civil defense officials assisted the States in procuring nearly \$45 million worth of organizational equipment and training aids. They also worked with the States and cities in conducting 163 major civil defense exercises and 204 command position exercises.

Regional civil defense officials also assisted the States in developing training schools and courses which graduated some 200,000 students during the year. In addition, they sponsored and arranged a total of 64 regional conferences on civil defense problems and participated in 165 State conferences. In the course of these conferences, more than 70,000 key people representing industry, labor, civic and fraternal groups were instructed in civil defense problems.

## HOW FCDA FUNDS WERE SPENT DURING 1952

The Federal financial investment in civil defense during fiscal year 1952 was only about 70 cents per person despite the evidence that the enemy's capability of launching an all-out atomic attack on the United States was increasing, and despite the fact that the force of civil defense workers grew from 2,000,000 to about 4,000,000. This investment was far from enough to give our Nation a civil defense program adequate to cope with the consequences of the weight of attack which the enemy can now deliver. By careful establishment of program priorities, it has been possible, however, to use this 70 cents per person to develop a better degree of initial operational readiness and to begin to meet the unusual matériel demands which an all-out attack would make on our economy.

Funds available to the Federal Civil Defense Administration were invested in: (a) operations; (b) contributions on a matching basis to the States; and (c) development of Federal reserves of emergency supplies and equipment.

The financing of civil defense is based on the concept established by Public Law 920 of cooperation and coordination among all levels of government. To date funds for civil defense have come from the Federal, State, and municipal governments with the larger amount, by far, coming from the States and municipalities.

Under authority of the Federal Civil Defense Act of 1950, FCDA expended funds, as appropriated by the Congress, for technical guidance and assistance to the States and communities in the various specialized fields of attack warning, public civil defense education, training, communications, health and special weapons defense, fire-fighting, engineering, rescue, and many others. FCDA also stock-piled some emergency supplies and equipment to be rushed to States and communities which come under attack.

The States, territories, certain of the possessions, and their political subdivisions purchased for their civil defense forces such equipment as fire pumpers, rescue trucks, and warning system equipment. They also purchased vital medical supplies and equipment to be stored near critical target areas for use in the first few hours after attack.

Civil defense supplies and equipment were obtained, to the extent of available Federal funds, under the Federal contributions program with the Federal Government and States sharing the cost equally. The State's share of the cost came either from State appropriations or

TABLE A.—SOURCE OF FCDA FUNDS

[Fiscal Year 1952—July 1, 1951, through June 30, 1952]

*Federal contributions to States:*

1951 supplemental appropriation <sup>1</sup> -----	\$25,000,000
1952 appropriation-----	7,750,000
Transferred to "Emergency supplies and equip- ment" as authorized by Public Law 253-----	—10,400,000

Total available-----	\$22,350,000
----------------------	--------------

*Emergency supplies and equipment:*

1952 appropriation-----	\$56,000,000
Transferred from "Federal contributions to States" as authorized by Public Law 253-----	10,400,000

Total available-----	66,400,000
----------------------	------------

*Operations:*

1952 appropriation-----	\$11,195,000
1952 supplemental appropriation-----	365,000
Reimbursements-----	7,256

Total available-----	11,567,256
----------------------	------------

Total for fiscal year 1952-----	100,317,256
---------------------------------	-------------

<sup>1</sup> 1951 supplemental appropriation for Federal contributions to States was made available as a multiple-year (1951 and 1952) appropriation.

TABLE B.—DETAIL OF FEDERAL FUNDS AND OBLIGATIONS

[Fiscal year 1952—July 1, 1951 through June 30, 1952]

	Available funds	Total obligations	Unobligated balance
<b>Federal contributions to States:</b>			
Attack warning system-----	\$2,643,900	\$2,636,321	\$7,579
Communication system-----	1,829,000	1,817,249	11,751
Fire-fighting service-----	2,778,600	2,778,594	6
Rescue service-----	498,500	489,665	8,835
Training and education-----	4,600,000	4,592,004	7,997
Medical supplies and equipment-----	10,000,000	9,988,083	11,916
Total Federal Contribution-----	22,350,000	22,301,916	48,084
<b>Emergency supplies and equipment:</b>			
Medical supplies and equipment-----	60,400,000	60,326,848	73,152
Engineering service-----	6,000,000	5,875,617	124,383
Total emergency supplies and equipment-----	<sup>a</sup> 66,400,000	66,202,465	197,535
<b>Operations-----</b>	11,567,256	11,110,731	<sup>b</sup> 456,525
Grand total-----	100,317,256	99,615,112	702,144

<sup>a</sup> Includes transfer of \$10,400,000 from appropriated funds for Federal contributions to States to "Emergency supplies and equipment" authorized by Public Law 253.

<sup>b</sup> Includes \$365,000 from supplemental appropriations for fiscal year 1952 which were not released by the Bureau of the Budget for expenditures or obligations.

from city, county, or other municipal funds. When sufficient Federal funds were not available, the excess cost was borne where possible by the State or political subdivision.

All State and local administrative costs, such as salaries of regular civil defense workers, rent, utilities, and travel, were paid by the State or municipality.

## The Federal Appropriation

Federal funds in the amount of \$100,317,256 were made available for civil defense obligations during the 1952 fiscal year. An over-all picture of fiscal activities in the program during the 1952 fiscal year is presented in tables A and B.

## State Funds Available

In fiscal year 1952, the States and local governments made available \$22,301,916 for matching Federal contributions.

State and local funds during fiscal 1952 for civil defense administrative and operating purposes totaled approximately \$19,000,000. This figure is conservative, however, since the reporting of local funds is in many instances incomplete.

There also were available in the States and municipalities about \$93,000,000 in emergency and contingency funds. Portions of these funds can be expended only in the event of an actual attack or other national emergency.

## The Contributions Program

### (a) Responsibility:

Public Law 920, 81st Congress, states that the "responsibility for civil defense shall be vested primarily in the several States and their political subdivisions." Inherent in this responsibility is the need for State and local governments to make, to the extent they are able, the financial outlays required to equip and maintain their local civil defense forces effectively and to educate the public in self-protection.

However, civil defense is much more than a State and local problem. Since the people and productive resources of the entire country must be protected, the Federal Government, through FCDA, has responsibility for preparing "national plans and programs" for civil defense, providing "necessary coordination and guidance," and giving "necessary assistance" to the States in carrying out their programs.

One important way in which FCDA provides assistance to States and local communities is through contributions authorized by Con-

TABLE C.—DETAILS OF FEDERAL CONTRIBUTIONS TO STATES AND TERRITORIES, CIVIL DEFENSE PROGRAM  
FISCAL YEAR 1952 OBLIGATIONS<sup>1</sup>

State	Total	Attack warning system	Communication system	Fire-fighting equipment	Rescue equipment	Medical supplies and equipment	Training and education
Alabama.....	\$103,920	\$19,351	\$31,777	\$16,695			\$36,097
Arizona.....	31,263	7,612					23,651
Arkansas.....	1,165						1,165
California.....	3,936,872	286,708	296,000	328,217	\$105,259	\$1,723,710	1,198,978
Colorado.....	98,475	25,933		17,533		17,370	37,639
Connecticut.....	352,127	54,071	27,195	33,641	1,726	173,596	61,898
Delaware.....	145,205	22,280	35,535			49,707	37,683
Florida.....	63,387	35,080				2,226	26,081
Georgia.....	29,072	19,988					9,084
Illinois.....	476,426	180,566	68,574	204,292	248	1,348	21,398
Indiana.....	136,812	12,427		5,894		67,298	51,193
Iowa.....	24,238	5,250					
Kansas.....	183,088	32,772	9,693	6,755		38,292	95,576
Kentucky.....	81,966		15,593	26,751	6,902	19,353	13,367
Louisiana.....	143,565	10,285	24,879	59,760	207		48,434
Maine.....	31,870					7,239	24,631
Maryland.....	521,489	182,932	54,464		6,287	147,693	130,113
Massachusetts.....	1,222,381	200,472	83,701	131,597	29,318	626,768	150,525
Michigan.....	847,175	102,947	125,978	185,674		212,847	221,729
Minnesota.....	185,947	17,430	2,861	44,887	22,217	17,583	80,969
Mississippi.....	258						258
Missouri.....	244,490	98,391	37,960	76,180	10,353	1,550	20,056
Montana.....	808						808
Nebraska.....	48,120					15,945	32,175
Nevada.....	18,705						18,705
New Hampshire.....	25,763						19,002
New Jersey.....	704,117	17,910	55,294	197,370	4,579	6,761	333,363
New York.....	5,733,298	410,464	620,879	502,380	192,416	2,995,060	1,012,599
North Carolina.....	40,071	13,734				24,876	1,461



gress. Under this program the Federal Government shares with States the cost of procuring certain civil defense supplies and equipment. FCDA supplements the contributions program by stockpiling, at Federal expense, emergency supplies and equipment for use in attacked areas.

The contributions program also aids FCDA in developing and coordinating national plans. Through this program, FCDA can do much toward achieving national program balance. The contributions program also helps bring about standardization of civil defense supplies and equipment, facilitating the making of practical mutual aid and mobile support plans.

(b) Allocation of funds:

FCDA allocated appropriated Federal contributions funds in fiscal year 1953 among the several States in the ratio which the population of each State (1950 census) bears to the total population of all the States. Each State then was advised of its share. (See table D.)

Each State then submitted a proposed breakdown of its allocation. After review and agreement by FCDA, the resulting breakdown will become the States' program pattern for the fiscal year. States will be required to justify any substantial deviations from that pattern.

For the period July 1, 1951, through June 30, 1952, FCDA allocated \$22,350,000 to the States and territories of which \$22,301,916 was obligated. This amount represented a total of \$44,603,832 in civil defense supplies and equipment, since the Federal contributions had to be matched by an equal amount of State or local funds. This program breakdown for the various States is shown in table C.

For fiscal year 1953, \$15,000,000 was authorized by Congress for allocation among the States. The States, by cutting their requests to a minimum, have come forward with approximately \$21,500,000 in needs. For fiscal 1953, this leaves the sum of \$6,500,000 in requested funds from the States that cannot now be met from the Federal contributions fund. (See table D.)

(c) Reallocation:

FCDA is responsible for assuring that Federal contributions are expended for approved civil defense programs by those States which have State, local, or other funds available for matching. Therefore, Federal funds allocated but unexpended by an announced date are reallocated to States having additional funds available for use on a matching basis.

For fiscal year 1953, seven States and the Virgin Islands have released approximately \$600,000 which will be reallocated among the other States having available matching funds greater than the amount of the Federal matching contributions initially available through allocations established by FCDA.

TABLE D.—COMPARISON OF THE FEDERAL FUNDS ALLOCATED TO THE STATES FOR MATCHING PURPOSES WITH THE AMOUNTS REQUESTED BY THE STATES <sup>1</sup>

[Fiscal year 1953]

*Tentative*

State	Federal allocation	State request	Additional funds requested	Released funds
Alabama	\$298, 815	\$346, 689	\$47, 874	
Arizona	73, 155	73, 155		
Arkansas <sup>2</sup>	186, 360			
California	1, 033, 170	2, 264, 859	1, 231, 689	
Colorado	129, 315	162, 289	32, 974	
Connecticut	195, 900	701, 309	505, 409	
Delaware	31, 035	550, 000	518, 965	
Florida	270, 465	270, 465		
Georgia	336, 180	336, 180		
Idaho	57, 450	57, 450		
Illinois	850, 275	1, 300, 275	450, 000	
Indiana	383, 970	383, 970		
Iowa	255, 810	180, 000		\$75, 810
Kansas	185, 955	185, 955		
Kentucky	287, 400	457, 963	170, 563	
Louisiana	261, 900	351, 900	90, 000	
Maine	89, 175	89, 175		
Maryland	228, 675	328, 675	100, 000	
Massachusetts	457, 785	457, 785		
Michigan	621, 870	621, 870		
Minnesota	291, 075	291, 075		
Mississippi	212, 655	50, 000		162, 655
Missouri	385, 965	385, 965		
Montana	57, 675	57, 675		
Nebraska	129, 360	74, 000		55, 360
Nevada	15, 630	15, 630		
New Hampshire	52, 035	49, 949		2, 086
New Mexico	66, 480	79, 870	13, 390	
New Jersey	471, 915	584, 888	112, 973	
New York	1, 447, 380	4, 247, 380	2, 800, 000	
North Carolina	396, 435	265, 000		131, 435
North Dakota	60, 465	60, 465		
Ohio	775, 560	1, 427, 030	651, 470	
Oklahoma	217, 965	217, 965		
Oregon	148, 470	166, 939	18, 469	
Pennsylvania	1, 024, 560	1, 220, 000	195, 440	
Rhode Island	77, 280	77, 280		
South Carolina	206, 610	88, 856		117, 754
South Dakota	63, 705	63, 705		
Tennessee	321, 270	368, 770	47, 500	
Texas	752, 595	752, 595		
Utah	67, 230	67, 230		
Vermont	36, 870	36, 870		
Virginia	323, 895	323, 895		
Washington	232, 185	232, 185		
West Virginia	195, 735	337, 000	141, 265	
Wisconsin	335, 205	276, 655		58, 550
Wyoming	28, 350	28, 350		
Alaska	12, 555	145, 555	133, 000	
American Samoa	1, 845	1, 845		
District of Columbia	78, 285	78, 285		
Guam	5, 805	14, 805	9, 000	
Hawaii	48, 780	148, 780	100, 000	
Canal Zone	5, 160	10, 160	5, 000	
Puerto Rico	215, 760	215, 760		
Virgin Islands	2, 595			2, 595
Total	15, 000, 000	21, 582, 376	7, 374, 981	606, 245

(d) Equipment eligible under contributions:

Civil defense needs eligible for Federal contributions on a matching basis consist of materials, facilities, and organizational equipment, for which the Administrator is authorized to make financial contributions under Section 201 (i) of the Federal Civil Defense Act of 1950.

Organizational equipment is equipment determined by the Administrator to be (1) necessary to a civil defense organization, as distinguished from personal equipment, and (2) of such type or nature as to require it to be financed in whole or in part by the Federal Government. It does not include those items which the local community normally utilizes in combatting local disasters, except when such items are required in unusual quantities by civil defense plans.

(e) Limitations:

Approval of requests for Federal contributions is subject to legal limitations and general policy limitations. Legal limitations are contained in the Federal Civil Defense Act of 1950 and other applicable Federal Laws. General policy limitations are administratively determined by FCDA and are based upon over-all national civil defense requirements and funds available.

(f) The matching percentage:

Contributions for items designated for Federal procurement, if procured by a State, shall not exceed 50 percent of the acquisition cost FCDA would have incurred had it purchased the item through its own sources. Such percentage may be varied under the law for the Territory of Alaska.

## Emergency Supply and Equipment Program

During fiscal year 1952, \$66,202,465 was obligated for the purchase of emergency supplies and equipment to be stored throughout the country under Federal control. Of this amount, \$60,326,848 was spent for medical supplies and \$5,875,617 for engineering supplies and equipment. (See table B.)

## Federal Procurement

Civil defense medical supplies are being purchased by FCDA through the Armed Services Medical Procurement Agency, thus assuring essential economy, quality control, and proper inspection.

The Congress has provided for a \$5,000,000 procurement fund from which payments to contractors can be made in time to allow the Federal Government, the States, and the territories and possessions to realize discounts of one-half of 1 percent on purchases of civil

## Operations

Operations funds obligated during the period July 1, 1951 through June 30, 1952, totaled \$11,110,731. For fiscal year 1953, the amount authorized for obligation is \$8,600,000. Table E is a breakdown of the operations fund obligations by programs. Table F is a breakdown of fund obligations by object class.

TABLE E.—OBLIGATION OF OPERATIONS FUNDS BY PROGRAMS

[Fiscal year 1952—July 1, 1951, through June 30, 1952]

Program	Amount
Executive direction.....	\$2, 969, 365
Public information.....	1, 895, 095
Technical services to State and municipalities.....	2, 085, 887
Attack warning.....	173, 568
Communication system.....	542, 444
Emergency operations.....	228, 445
Supply service.....	502, 446
Health and special weapons.....	324, 452
Training and education.....	1, 488, 836
Research and development.....	900, 193
Total operations obligations.....	11, 110, 731

TABLE F.—OBLIGATION OF OPERATIONS FUNDS BY OBJECT CLASS

[Fiscal Year 1952—July 1, 1951, through June 30, 1952]

Code	Title	Amount
01	Personal services.....	\$5, 588, 861
02	Travel.....	505, 839
03	Transportation of things.....	56, 949
04	Communication service.....	142, 426
05	Rents and utility service.....	51, 970
06	Printing and reproduction.....	355, 203
07	Other contractual service.....	3, 440, 189
08	Supplies and materials.....	229, 603
09	Equipment.....	651, 363
10	Land and structures.....	66, 500
13	Refund awards and indemnities.....	107
15	Taxes and assessments.....	17, 678
	Unvouchered.....	4, 043
	Total operations obligations.....	11, 110, 731

## Administrative Operations

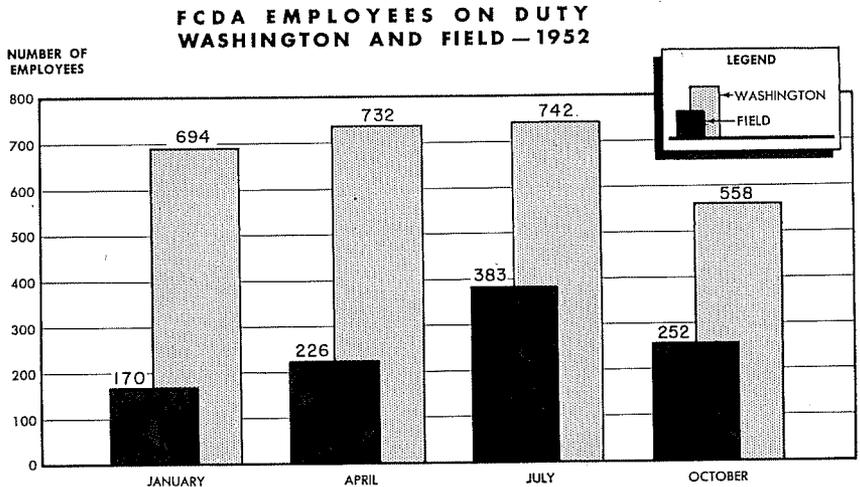
During the first half of 1952, the FCDA was still building up its small staff of highly skilled persons needed to administer the national civil defense program and to provide technical advice and guidance to State and local civil defense organizations. Although

the FCDA has a wide variety of highly skilled professions and technical personnel in its organization, it is and will remain a small policy-formulating and advisory type of agency.

As a result of the drastic reduction in appropriations by the Congress for fiscal year 1953, the FCDA was forced to decrease seriously its personnel complement. This reduction in force lowered the agency strength from over 1,100 to about 800, a cut of approximately 30 percent.

As required by Section 403 (a) of the Federal Civil Defense Act, all employees of FCDA have been processed for security background. In each case determination was made that no information was contained in the files of the Federal Bureau of Investigation or any other investigative agency of the Government to indicate that the employee was of questionable reliability.

In addition, all employees of the Agency who occupy any position determined by the Administrator to be of critical importance to national security were subject to full background investigation, conducted by either the Civil Service Commission or the Federal Bureau of Investigation. As of October 10, 1952, a total of 836 such investigative reports were reviewed by the Security Division.



## THE PEOPLE LEARN PREPAREDNESS

Civil defense progress throughout the Nation in 1952 drew its impetus from a continuing campaign to alert all Americans to the dangers of enemy attack and to provide adequate survival information to 45 million American families. The results in terms of increased public understanding to date have not been matched, according to impartial scientific surveys, by any other such mass education project ever before undertaken by Government during either peacetime or wartime.

Yet, what has been accomplished by way of getting basic survival information to the American people is far from enough, considering the urgency and magnitude of the threat.

All branches of civil defense—Federal, State, and local—helped supply the drive and energy necessary to cope with the public information problem. Their success in making the facts of survival understood, believed and remembered by millions of Americans would have been impossible without the remarkable cooperation of the Nation's mass information media—newspapers, magazines, radio, television, advertising, and motion pictures. With their help three major activities were headlined in the second year of FCDA's cooperative campaign to prepare our people to meet a mass assault:

(1) The Alert America Convoys; (2) the continuing all-media programs for supplying survival information to the public; (3) the grass roots "Pledge for Home Defense" campaign which began in November 1952.

As a result of these programs, additional millions of American families undertook individual and group preparedness, which is the foundation of the National Civil Defense Program.

The gains can be measured scientifically in terms of (a) lifesaving personal protection booklets bought and read; and (b) intensified individual participation in local civil defense organizations throughout the country. The results in both instances are gratifying.

FCDA is required by law to carry out a comprehensive public education program in civil defense. The Agency establishes the basic objectives of the information programs; assigns priority and emphasis to the necessary information activities; prepares information materials for all media; and devises ways of getting this information to the American people—either directly or through privately sponsored information channels.

Thus far, the Federal funds available for FCDA's lifesaving public education program have amounted to less than the cost of mailing a single postcard to each of the 156 million people of our country.

FCDA's over-all public education program has been planned to carry out a balanced program in four areas: (1) The development of scientifically accurate survival and self-protection information for the American people, primarily in terms of defense against specific weapons and kinds of attack with which our people may be confronted. (2) Development of technical civil defense information in cooperation with other operating divisions of the Agency. This technical information provides continuing guidance for developing sound, uniform civil defense procedures on a Nation-wide basis. (3) Service to mass media of public information. To meet continued requests for civil defense information from all kinds of publishing and broadcasting sources, at both national and local levels, FCDA continues to produce specialized material based on media needs. (4) Special campaigns for all media. A growing number of such programs are being worked out in cooperation with other government agencies and public service groups. Generally, these programs have immediate objectives geared to long-range goals of the national civil defense program.

In another sense, they fall into two other vital categories: (1) The preemergency period during which the public is instructed in protection against modern weapons, in what can happen if we are attacked, and what to do about it in practical terms; (2) the attack or post-attack period during which public safety instructions and directions must be given. These include proper measures to be taken by persons during and following an enemy attack.

## **Current Results of the Public Education Program**

Because of increased personal preparedness today many more thousand American people would survive an enemy attack than would have survived a year ago. In the target cities and rural areas, there is valid evidence that the American people generally have increased their personal preparedness and participation in civil defense.

Scientific evidence comes from the most recent of three personal interview studies of public opinion in regard to civil defense, conducted by the Survey Research Center of the University of Michigan. This latest national study polled an accurate cross-section of some 97 million people—approximately the adult population of the Nation.

Here are some of the highlights of the Michigan study:

1. Some 84 percent of our people in critical target areas now have some knowledge of civil defense measures for personal protection under attack conditions.
2. Half of our people have a generally accurate knowledge of civil defense purposes and operations.
3. Four-fifths of our people do not agree that civil defense is unnecessary because there is no real danger.

4. Nearly four-fifths of our people living in rural areas are willing to help stricken cities, either by taking care of homeless evacuees, or by going to the cities to assist in mutual aid or mobile support activities.

5. More than half of our people believe there is real danger of war and realize that this country might be attacked.

6. Seven-tenths of our people disagree with the idea that atomic bombs are so destructive that civil defense could do little to protect lives and property.

## **Information Media Activities**

### **Newspapers**

Newspapers were the principal channels of public information on civil defense activities during 1952. Studies of the Survey Research Center of the University of Michigan show that 51 percent of the people got their civil defense information from newspapers.

Of the 1,773 daily newspapers printing an average of 52,500 copies every day, 100 were regularly examined by FCDA to study the amount of self-protection and local civil defense news carried. A sampling of the Nation's 10,500 weekly newspapers also was made regularly.

Combined sampling showed that daily and weekly newspapers published an estimated 680,000 press items on civil defense during the year. This figure included news stories, features, editorials, and many special sections.

Editors indicated that the public now has an attitude of steadfast recognition that survival under attack depends on preparedness in civil defense as well as in military defense.

On April 22, 1952, several hundred members of the press witnessed an atomic explosion at the Nevada Proving Grounds. It was the first time persons without special security clearance were allowed to witness the testing of an atomic device.

### **Magazines**

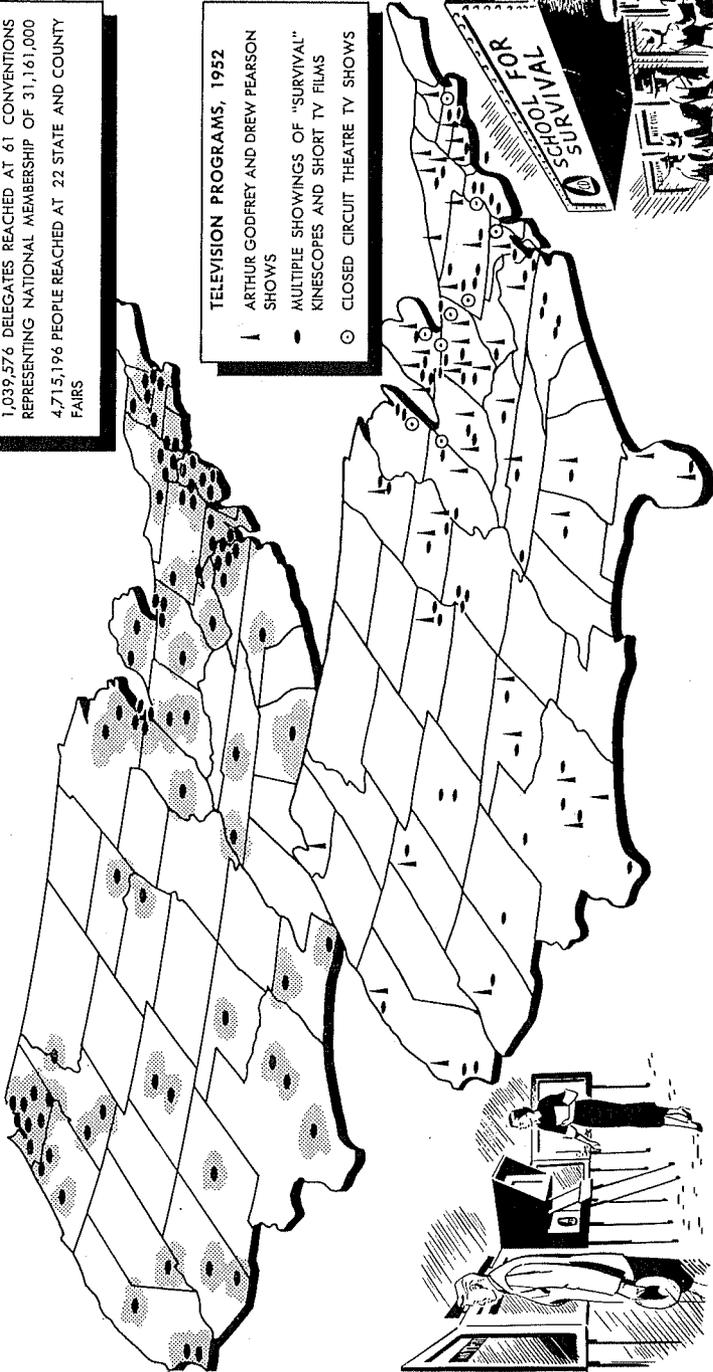
Some 19 percent of our people received their civil defense information from magazines. More than 250 articles on civil defense appeared in the Nation's magazines during 1952 compared with 75 in 1951. Aggregate circulation of the magazines carrying civil defense material exceeded 200 million. The publications cooperating with civil defense include scientific, business, trade, fraternal, youth, technical and professional periodicals, as well as general interest magazines. Many of their articles were prepared with the assistance of FCDA staff members, who also placed much of the material used.

A national magazine advisory committee, composed of 13 prominent editors, publishers, and authors was formed during the year to develop even greater magazine participation in the survival information program.

# 1952 FCDA VISUAL PRESENTATIONS THROUGH EXHIBITS AND TELEVISION

**EXHIBIT PROGRAM, APRIL TO DECEMBER 1952**  
 1,039,576 DELEGATES REACHED AT 61 CONVENTIONS REPRESENTING NATIONAL MEMBERSHIP OF 31,761,000  
 4,715,196 PEOPLE REACHED AT 22 STATE AND COUNTY FAIRS

**TELEVISION PROGRAMS, 1952**  
 ▲ ARTHUR GODFREY AND DREW PEARSON SHOWS  
 ● MULTIPLE SHOWINGS OF "SURVIVAL" KINESCOPES AND SHORT TV FILMS  
 ○ CLOSED CIRCUIT THEATRE TV SHOWS



An information kit for the use of the Nation's 5,000 magazine editors was prepared and released before the year's end.

The "Pledge for Home Defense" campaign was supported by 42 major consumer magazines.

### **Radio Activities**

During 1952, approximately 26 percent of our people got their civil defense information by radio. Six radio script kits containing more than 100 pages of spot announcements, scripts and background material were distributed to 2,900 radio stations throughout the country. Through the efforts of local civil defense directors working with local stations, this material was widely used during the year.

Six FCDA radio transcriptions were used regularly during the year by local radio stations throughout the country. One of these, "Bert the Turtle," received first award from the Ohio State University institute for education by radio-television as the best educational show produced for children in the United States in 1952.

The entire NBC radio network of 168 stations carried a series of 13 fifteen-minute radio shows, devoted to personal protection and how the services of civil defense function in an emergency. The CBS radio network carried a series of 5 fifteen-minute shows on new civil defense developments. FCDA officials and technical specialists appeared on some 30 Nation-wide programs over the NBC, MBS, CBS, ABC, LBS and regional networks.

### **Motion Pictures**

During 1952, FCDA released four 10-minute public education films as part of its continuing series of civil defense motion pictures. These films were "Duck and Cover," "Our Cities Must Fight," "This Is Civil Defense," and "Emergency Action to Save Lives."

These public education films were sponsored by private producers who supplied the capital, made the films, and distributed them on a national basis. By agreement with FCDA, these films are marketed through some 12,000 outlets at a special public service price, more than 50 percent below the usual list price for films of this type. Filmed civil defense survival information is now being presented to a public in excess of 10 million annually—without cost to the Federal Government for production or distribution.

"Schools for Survival" a 20-minute color film, designed for local use in developing local civil defense training facilities primarily fire fighting and rescue, was released in October. A black and white version of this film is being released to television stations.

### **Television**

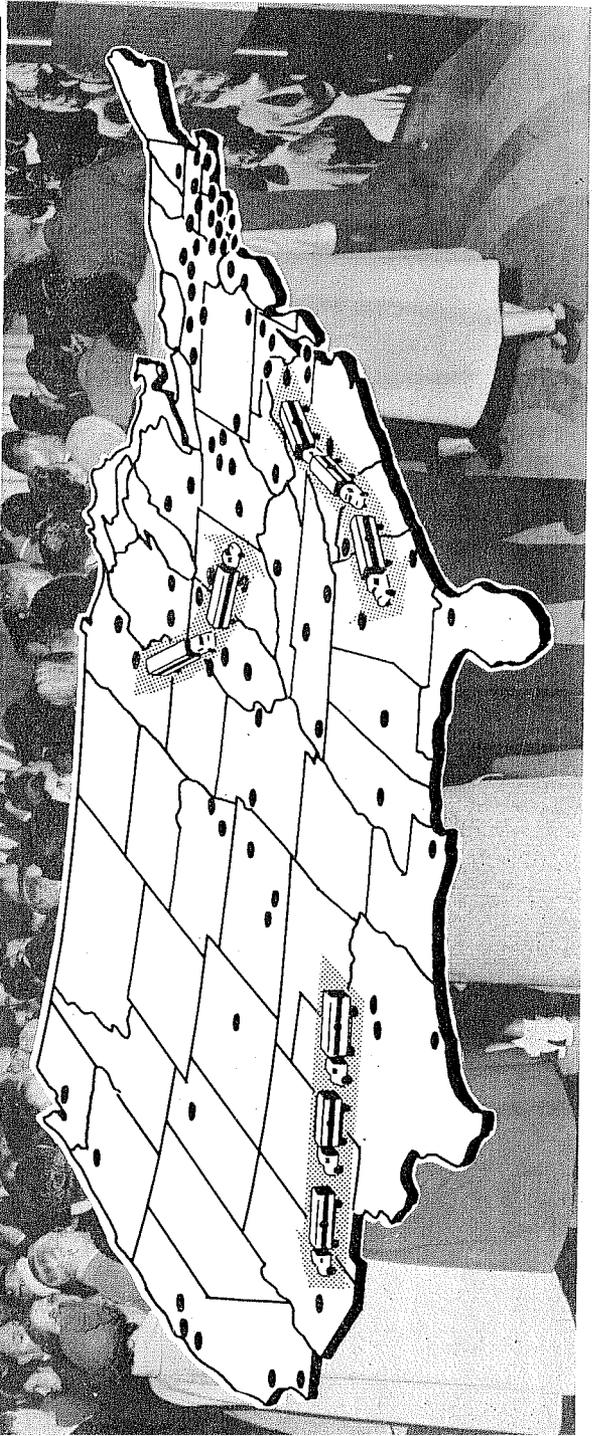
In 1952, FCDA continued its pioneering use of closed-circuit theater television as an educational medium by transmitting civil defense

**THE ALERT AMERICA CONVOYS**

Alert America

THE TIME IS NOW!

NUMBER OF CITIES VISITED.....	82
NUMBER OF STATES VISITED.....	36
TOTAL ATTENDANCE.....	1,108,472
AVERAGE ATTENDANCE.....	13,518
SIGNED ALERT AMERICA CARDS.....	67,171



information to mass audiences simultaneously in many cities. FCDA used closed-circuit TV for the first time on a national public service basis, when on June 26, a 1-hour program was presented from Washington to 11,000 municipal police and civil defense police auxiliaries in 10 major United States cities: Boston, New York, Baltimore, Philadelphia, Pittsburgh, Cleveland, Detroit, Chicago, Milwaukee and Toledo.

This program received strong commendation from civil defense officials and participants in all cities; was reviewed favorably in the trade and general press; and was covered extensively by Paramount news-reel release, which showed this new education medium in action to audiences in 5,000 motion picture theaters throughout the Nation.

In December 1951, FCDA prepared kinescopes of its NBC "Survival" television series. These kinescopes, or film duplicates of actual TV programs, were developed by FCDA to produce maximum repeat performances of seven "live" half-hour TV shows, and to obtain saturation coverage in the critical target cities serviced by television.

A carefully devised rotation distribution system was carried out by FCDA, State, and Regional civil defense directors and resulted in a total of 392 individual half-hour program showings. A conservative estimate indicates that well in excess of \$100,000 in public service time was obtained through the excellent cooperation of the television industry for a total investment by FCDA of only \$5,300.

This "Survival" series was voted third place honors in a leading trade magazine's first annual poll of television stations as one of the best public service films of the year.

Each television station in the country has provided many public service showings of one 4-minute film "Take Cover" and five related 1-minute films giving public instructions on the air-raid warning signals and where to take shelter. Three-minute and 1-minute versions of TV public service films on these subjects are now being widely used: "Emergency Action to Save Lives," "What You Should Know About Biological Warfare," and "This Is Civil Defense."

### **The Alert America Convoys**

More than one million Americans in 82 cities had the civil defense story brought forcefully to them during 1952 by three identical, motorized Alert America Convoys carrying comprehensive civil defense exhibits.

Each convoy exhibit was transported in 10 specially painted 32-foot trailer trucks manned by United States Army personnel from the Army motor pool at Fort Eustis, Va.

Designed and operated by the Valley Forge Foundation, the basic material in each exhibit covered an area of 120 by 160 feet, or about

## CITY INFORMATION ON ALERT AMERICA CONVOYS

<i>City visited</i>	<i>Approx. attendance</i>	<i>City visited</i>	<i>Approx. attendance</i>
Akron, Ohio	4, 015	Newark, N. J.	5, 582
Albany, N. Y.	5, 902	New Haven, Conn.	8, 950
Atlanta, Ga.	11, 169	New London, Conn.	7, 333
Baltimore, Md.	13, 470	New Orleans, La.	22, 523
Binghamton, N. Y.	4, 321	New York, N. Y.	46, 724
Birmingham, Ala.	8, 143	Norfolk, Va.	8, 000
Boston, Mass.	5, 122	Oakland, Calif.	28, 864
Bridgeport, Conn.	4, 000	Omaha, Nebr.	20, 387
Buffalo, N. Y.	3, 285	Peoria, Ill.	7, 397
Canton, Ohio	6, 947	Philadelphia, Pa.	9, 156
Charleston, W. Va.	1, 997	Phoenix, Ariz.	17, 500
Chattanooga, Tenn.	15, 227	Pittsburgh, Pa.	6, 127
Chicago, Ill.	22, 476	Pittsfield, Mass.	4, 118
Cleveland, Ohio	3, 350	Portland, Oreg.	25, 207
Columbus, Ohio	6, 800	Providence, R. I.	18, 382
Dallas, Tex.	3, 047	Richmond, Va.	4, 370
Denver, Colo.	11, 243	Rochester, N. Y.	4, 163
Detroit, Mich.	7, 446	Rock Island, Ill.	10, 036
Duluth, Minn.	6, 829	Sacramento, Calif., State Fair	114, 845
Fall River, Mass.	15, 654	St. Louis, Mo.	23, 711
Fort Bustis, Va.	1, 847	St. Paul, Minn.	5, 654
Fort Worth, Tex.	4, 616	Salt Lake City, Utah, State Fair	74, 824
Gary, Ind.	4, 392	San Diego, Calif.	27, 889
Grand Rapids, Mich.	7, 886	San Francisco, Calif.	12, 784
Greenville, S. C.	8, 004	Savannah, Ga.	9, 640
Hartford, Conn.	20, 021	Schenectady, N. Y.	9, 165
Houston, Tex.	12, 101	Seattle, Wash.	30, 542
Hutchinson, Kans.	7, 020	Springfield, Ill.	11, 515
Indianapolis, Ind.	10, 809	Springfield, Mass.	5, 169
Jackson, Miss.	8, 963	Stamford, Conn.	3, 100
Jacksonville, Fla.	6, 180	Syracuse, N. Y.	3, 065
Kansas City, Mo.	16, 446	Topeka, Kans.	11, 965
Lincoln, Nebr., Lancaster County Fair	20, 329	Trenton, N. J.	11, 350
Los Angeles, Calif.	52, 051	Utica, N. Y.	6, 000
Louisville, Ky.	2, 862	Washington, D. C.	32, 000
Madison, Wis.	11, 340	Waterbury, Conn.	7, 000
Manchester, N. H.	9, 659	Wichita, Kans.	12, 005
Memphis, Tenn.	8, 440	Wilmington, Del.	10, 700
Milwaukee, Wis.	18, 075	Winston-Salem, N. C.	9, 470
Mineola, N. Y.	5, 000	Worcester, Mass.	5, 225
Nashville, Tenn.	17, 351	Youngstown, Ohio	4, 200

three average-sized building lots, and was the largest public service show ever taken on tour in this country.

During their 9 months' national tour, covering 36,000 miles, the convoys provided the impetus for developing greater community cooperation and participation in civil defense. Each showing was arranged and planned by local civil defense officials, civic leaders, and media representatives. Special events such as parades, civil-defense exercises, and military maneuvers were tied in with the Alert America show to attract public attention and promote greater interest in civil defense. The information media in each city gave unusually widespread publicity to the exhibits. Local merchants and industries advertised the shows in hundreds of public service announcements. City mayors frequently proclaimed "Civil Defense Week" during the

Convoy visit. Advertised as "The Show That May Save Your Life," it was frontpage news everywhere it went.

The combined efforts of civil defense officials and volunteers, public-spirited citizens, the military, and the information media enabled the Alert America Convoys to create a tremendous amount of public interest in civil defense and self-protection among the 67 million residents of the cities visited.

This special program, developed late in 1951 in cooperation with the Valley Forge Foundation, Inc., a nonprofit organization, served as a spearhead to carry civil-defense information directly to the public in critical target areas. It also stimulated local civil-defense education and recruiting drives.

In addition to the great popular appeal and media coverage of the Alert America exhibits, the convoys were responsible for a number of long-term benefits to the civil defense program locally and nationally. The convoys served as rallying points for civil-defense organizations in every city where they appeared. Large groups of civic leaders and organizations were drawn into the program for the first time. The active aid of private industry was obtained. New impetus was given to civil defense training in the schools.

Many public officials were aroused to the need for immediate action and civil defense staffs and funds were implemented accordingly. Local committees, formed in advance of the convoy, retained their active interest and participation in civil defense. Many continued to serve as a permanent part of the local civil defense organization.

In several cities, recruiting drives were stepped up and emphasis was given to the prompt training of instructors and an increase in training facilities. Although many cities did not use the convoy as a direct recruiting appeal, more than 67,000 people volunteered for specific duties in civil defense during the convoy tours.

In performing their mission of rapidly creating greater public understanding and participation in civil defense, the Alert America Convoys have been judged as the largest, most comprehensive and most dramatic mobile exhibits ever used in this country by any agency—public or private. They were able to arouse more public interest in national security within a few short months than has ever been stimulated in peacetime before on behalf of any national emergency effort.

### **Emergency Information Operations**

All public information media, on which the public traditionally relies for news and information, are being encouraged to make plans now in cooperation with their local civil defense directors to cope with the complex operational problems that would result from enemy attack.

NEWSPAPER PREPARATION FOR EMERGENCY OPERATION



BUFFALO, N.Y. CD TEST SEPT. 27, 1952  
BUFFALO EVENING NEWS



SYRACUSE, N.Y. CD TEST NOV. 22, 1952  
SYRACUSE POST-STANDARD



SYRACUSE, N.Y. CD TEST NOV. 22, 1952  
SYRACUSE HERALD-JOURNAL



NEW YORK CITY CD TEST DEC. 13, 1952  
EIGHT WESTCHESTER COUNTY (N.Y.)  
NEWSPAPERS.

"IMMEDIATELY FOLLOWING AN ATTACK, NOTHING CAN CONTRIBUTE MORE TOWARD REDUCING PUBLIC PANIC IN A MASS BOMBING . . . OR CONTRIBUTE MORE TO THE PUBLIC MORALE THAN FOR STRICKEN AREAS TO READ THE FACTS AND INSTRUCTIONS ON A PRINTED PAGE."

FCDA believes that during a civil defense emergency the public information media must be assisted by local authorities to continue operating as fully as physical circumstances and national security will permit.

Last August, at Niagara Falls, N. Y., the first international civil defense press and radio agreement for joint emergency operation became operative in the Niagara Falls target and circuit area.

Newspapers and radio station facilities in three New York and two Canadian counties will automatically become part of the Niagara Falls civil-defense organization in the event of an emergency. Press and radio members are organized to take duty posts at emergency centers, including a central public information bureau, and at civil-defense sectors, medical and welfare installations. Facilities and personnel of surviving newspapers may be used by newspapers destroyed under attack.

Under the Niagara Falls agreement, newspaper and radio personnel will be sworn in as active civil defense workers and issued proper credentials enabling them to carry out their duties in an emergency. Methods of publishing their "emergency newspaper edition," representing all members in the compact, have been worked out.

The compact states: "The end result of the agreement will be that the normal functions of newspapers and radio stations—that of supplying essential news to the people in the area they serve, regardless of adverse circumstances—keep maintained in event of enemy attack. Thus, civil defense will be assured of powerful weapons in allaying fear, panic, rioting, and other disturbances which so quickly arise from lack of authentic information or the distribution of misleading information."

Through the efforts of New York State Civil Defense authorities, publishers of 10 daily newspapers in the State cooperated in the production of the Nation's first civil defense test emergency newspaper editions in connection with civil defense test exercises. This major development in the emergency information area is now being studied by newspaper publishers throughout the country.

### **Conelrad Plan of Emergency Radio Broadcasting**

Early in December, the White House announced a plan for keeping standard (AM) radio stations on the air during enemy attacks to maintain a vital communication link with the public. Called CONELRAD (Control of Electromagnetic Radiation), this plan helps minimize the use of radio beams as navigation aids to hostile aircraft. It resulted from many months of cooperative effort between the broadcasting industry and Government agencies to develop a practical system of emergency radio broadcasting. Government agencies primarily concerned were the Federal Communication Commission, the United

The CONELRAD system is expected to be ready for operation under emergency conditions by early spring of 1953. Under the CONELRAD plan, it will be possible to have three separate types of emergency public radio programming: (1) direct broadcasting to the public by the local civil defense director; (2) State and regional radio broadcasts; (3) Nation-wide radio communications which will allow emergency defense information to be broadcast via a national network linking all radio stations broadcasting under CONELRAD on two designated frequencies, 640 and 1240 kilocycles.

A suggested programming guide developed by FCDA is now being used by civil defense directors and local broadcasters to develop emergency broadcasting plans and programs for local areas.

### **Joint Public Education Program on Air Defense**

During the summer of 1952, the Air Force and FCDA cooperated to carry out a continuing, joint education program to increase public understanding of the Nation's danger from enemy air attack, and to increase enrollment in the ground observer corps.

In 27 States, State civil defense directors worked directly with the Air Force to recruit volunteer personnel for the GOC. These "Sky Watchers" are then turned over to the Air Force for training and operation of the filter centers and ground observer posts throughout the Nation.

The joint education project has successfully gained public support for the Nation's air defense program with the assistance of the advertising council, all branches of the Armed Forces, many Federal civilian agencies, national religious leaders, the aircraft and allied defense production industries, and civic and fraternal organizations.

### **Special Exhibit Program**

To meet the demand for civil defense exhibit material, FCDA introduced an expanded exhibit program during 1952. Official reports indicate that more than 4½ million people learned the civil defense story through exhibits at 22 State and county fairs.

More than 1 million delegates representing 61 national organizations also attended FCDA exhibits during the year.

As a result of the exhibits, members of national organizations obtained more than 400 thousand copies of civil defense literature to aid them in organizing their family and group programs.

Seven portable and interchangeable exhibits were used in this program. Total cost of the seven exhibits to the government was less than \$10,000. The value of the donated exhibit space exceeded \$15,000.

As a part of the 1952 all-media program pointing up the continuing need for civil defense, two poster exhibits were released—the Alert

America color series and the recruiting series. In the fall, 40,000 sets of these exhibits in two sizes were distributed to State and local civil defense directors.

A "black light" presentation entitled "Defense of the Nation," created initially for intergovernmental use, has proved equally successful in television presentations, meetings and conventions.

### **The National Blood Program**

The ability of the National Blood Program, established by Executive order under the Office of Defense Mobilization, to meet the country's over-all requirements for civilian, military, and emergency needs depends primarily on recruiting an increasing number of civilians who are willing to donate blood on a regular basis.

To plan and coordinate a program—a full-scale mass blood-donor recruiting program—a public relations advisory committee was set up, consisting of public relations and medical representatives of ODM, FCDA, Department of Defense and the American Red Cross, with the cooperation of the Advertising Council.

One of the country's first public-service simulcasts on all major radio and television networks, under the direction of Arthur Godfrey, inaugurated the National Blood Program in October. All public information media now are receiving a constant flow of specialized information to create greater public interest and participation in the program.

Advisory committees have been formed. A new series of exhibits is ready for display among the national organizations which have pledged their support. The council of motion picture organizations and theater owners of America will distribute program material and exhibit movie trailers and lobby displays.

Nation-wide distribution of a fact booklet, window cards, posters, A-boards and advertising kits is completed or under way, and a comprehensive information guide for local use also has been prepared.

### **Pledge for Home Defense Campaign**

A comprehensive program of special events, new educational materials and adaptation of previously issued materials were geared into this major FCDA program effort.

Focal point of the public education phase was centered on a ten-point family civil defense program. This was covered in the new FCDA leaflet, "What You Can Do Now," which also contained official air-raid instructions, a list of contents for the household first-aid kit and a list of basic civil defense public education booklets and films, together with directions for obtaining them.

Some of the public information activities undertaken by FCDA for the "Pledge for Home Defense" campaign included:

1. Complete campaign information kits, and materials furnished to civil defense officials throughout the Nation.
2. Two new series of posters for use in the campaign; a color series of 12 posters illustrating the need for and benefits from civil defense, and 10 posters in black and white depicting the 10 basic services in civil defense.
3. Three major theatre circuits showed the civil defense film "Survival Under Atomic Attack," plus a recruiting trailer.
4. Eighty-six television stations in 46 major cities were provided with special television slides based on the FCDA recruiting poster series.

Among the results of the public education activity reported to date were:

1. Issuance of home defense proclamations by a number of governors and hundreds of mayors, which were widely publicized;
2. Speeches by national executives of participating organizations and articles on civil defense in organization newsletters, newspapers, and magazines;
3. Wide coverage by newspapers, radio, and TV stations, both locally and nationally. Many of the country's leading dailies devoted editorials to the campaign;
4. "Pledge for Home Defense" stories in leading national magazines;
5. Thousands of showings of civil defense films during the campaign period by 150 commercial theatres in 78 cities;
6. Store window displays, outdoor advertising, and poster promotion sponsored by industry;
7. Distribution of over 3,000,000 copies of civil defense pamphlets and booklets;
8. Many special events such as dropping of leaflets by Air Force planes over several cities and, in one instance, an entire State, with the message: "This could have been a bomb—Pledge for Home Defense—Register Today."

To focus public attention on civil defense as a "coequal partner with the Armed Services in the defense of the Nation," FCDA also urged a Nation-wide participation of civil defense forces in the observance of Armistice Day. This "Operation Main Street" met with substantial success throughout the Nation and served as a tribute by civil defense workers to the men and women in the armed services, as well as emphasizing the concept that civilian and military preparedness must move forward together.

## The Task Ahead

Substantial progress in public education was made during 1952 as a result of the programs initiated by FCDA. Yet, much remains to

be done to carry out the mandate of the Congress that FCDA should "publicly disseminate appropriate civil defense information by all appropriate means."

Every man, woman, and child in the Nation should know exactly what to do if an attack comes, and every home must be properly prepared. The comprehensive FCDA public education program which has been preparing 45 million American families to cope with all types of modern weapons and attack situations can save countless thousands of lives. It can substantially reduce the loss of life and property during and after enemy attacks, and cut down the effects of such attacks upon public morale, and defense production.

This is a task which must be done before an attack comes if it is to be really successful. When personal and family preparedness is adequately accomplished nationally, along with other fundamental civil defense measures, the country's security experts believe that the resulting national readiness on the homefront can be a major deterrent to war.

A measure of the magnitude of the public civil defense education task job that still lies ahead is shown by these findings reported in the University of Michigan's latest survey:

Less than  $\frac{1}{3}$  of the people in critical target areas know the warning signal. More than  $\frac{1}{10}$  of the people plan to rush to their homes or to safe areas out of town when they hear that attack is near. Less than  $\frac{1}{5}$  of the people have heard anything about civil defense preparations in places where they or members of their families work.

Only about  $\frac{1}{10}$  of the people know anything about protection against germ or gas warfare. Only  $\frac{1}{5}$  of the people have done anything to make their own homes safer in the event of attack. Less than  $\frac{1}{2}$  of the people in critical target areas know what to do after an attack. Less than  $\frac{1}{5}$  of the people know of specific things that organized civil defense is doing in their communities. People are less willing to join civil defense than they were a year ago. Nearly  $\frac{1}{2}$  of the people wrongly believe the Army, Navy, and Air Force could protect our cities from heavy damage. Nearly  $\frac{2}{3}$  of the people still believe that, even in a surprise attack, only a few enemy planes would get through.

The potential saving of American lives and the possibility of helping deter enemy attack through further intensive education of the public are of such consequence that they cannot be neglected or minimized. The goal is a simple one: Every American family must be so thoroughly trained in civil defense measures that it can protect itself as effectively under combat conditions as our men in uniform do.

The degree of success in attaining that goal prior to an attack may mean the difference between survival or disaster on the home front, should war come.

## CIVIL DEFENSE PERSONNEL ENROLLED AND CURRENTLY ASSIGNED TO CD DUTIES <sup>1/</sup>

SERVICE OR PROGRAM	PERSONS ENROLLED AND ASSIGNED
ADMINISTRATIVE AND STAFF	58,563
EMERGENCY WELFARE	275,691
ENGINEERING	323,763
FIRE	333,723
HEALTH AND SPECIAL WEAPONS DEFENSE	653,248
POLICE	320,993
PUBLIC AFFAIRS	9,694
RESCUE	42,850
SUPPLY	12,565
TRAINING AND EDUCATION	65,186
TRANSPORTATION	290,358
VOLUNTEER RECRUITMENT	37,926
WARDEN	549,314
WARNING AND COMMUNICATIONS	147,962
GROUND OBSERVER CORPS	147,152
MISCELLANEOUS <sup>2/</sup>	717,698
<b>TOTAL</b>	<b>3,986,686</b>

<sup>1</sup> Partial data based on reports from 48 States, the District of Columbia, and 5 territories and possessions as of August 31, 1952.

<sup>2</sup> Personnel not classified by services or program such as clergy, school, plant protection, etc., plus 544,130 personnel in New Hampshire, New Jersey, and Pennsylvania for whom no service assignment data has been received.

## CIVIL DEFENSE MANPOWER

Civil defense manpower objectives in 1952 were centered on enrolling a peacetime "hard core" of organized workers which could be expanded rapidly to cope effectively with wartime disaster.

Sources of manpower for this hard core were primarily:

(a) Existing governmental agencies, Federal, State, and local, such as municipal police and fire organizations.

(b) Private industry and organizations providing basic public services such as transportation, communications, engineering, health and welfare services.

(c) Volunteers to staff new civil defense services for which there are no peacetime counterparts, such as warden and rescue, and to fill out those built around existing community services.

Since the majority of civil defense workers are and will be volunteers, special problems not involved in the recruitment of paid workers had to be met. Special consideration was given to methods of recruitment, selection, and planning for training and work assignments. As an indication of how effectively these problems are being met, during 1952 the warden service, a purely voluntary program which has no existing community counterpart, increased its enrollment 206 percent between December 31, 1951, and August 31, 1952, to a total of about 550,000 persons, bringing the number of workers in the civil defense corps to approximately 4,000,000.

Intense effort is needed to increase the number of trained volunteers in the civil defense corps. Those already enrolled, however, now constitute a hard core or cadre around which the Nation's volunteer manpower resources can be marshaled in case of enemy attack in the immediate future.

Added impetus was given State and local recruitment efforts through development by FCDA during 1952 of a flexible grass roots volunteer mobilization program.

Keeping pace with the stepped-up recruitment progress has been the assistance and guidance given by FCDA to States and cities in developing effective manpower programs. Among the services provided and being developed are:

(a) Functional job descriptions for civil defense duties with suggested sources of manpower to perform these tasks;

(b) Tables of organization for teams, crews, squads, and other units with indications of their work capability in given lengths of time;

(c) Urban analysis procedures to enable each community to relate its manpower needs to the types and amount of work it must do to cope with an atomic attack;

(d) A reporting system to provide civil defense directors with a uniform means of recording progress in staffing civil defense organizations;

(e) Guidance on the availability of manpower from such sources as the Federal Government, public utilities, and private industries, and the use which should be made of them.

## National Organization Support

The "Pledge for Home Defense" campaign, a major public education and participation program, was launched by FCDA in November 1952. It was supported by 110 of America's leading national and community organizations which spearheaded its activities through their local chapters.

This grass roots effort was the result of more than a year of intensive planning with State and local directors and leaders of national organizations. The campaign was designed as a flexible civil defense mobilization effort which could be adapted to the needs of any community and its local organizations.

The twin goals of the "Pledge for Home Defense" campaign were: (1) mass public education in self-protection and family survival; and (2) mass registration for future enrollment, training, and duty with the active civil defense services.

Cooperating with FCDA and civil defense authorities throughout the country in the "Pledge for Home Defense" program were the following national organizations:

### NATIONAL ORGANIZATIONS PARTICIPATING IN THE CIVIL DEFENSE REGISTRATION PROGRAM

Air Line Dispatchers Association, AFL.  
 Air Line Pilots Association, AFL.  
 Altrusa International, Inc.  
 Amalgamated Clothing Workers of America, CIO.  
 American Association of University Women.  
 American Automobile Association.  
 American Dietetic Association.  
 American Farm Bureau Federation.  
 American Federation of Women's Auxiliaries of Labor, AFL.  
 American Federation of Hosiery Workers, AFL.  
 American Federation of Soroptimist Clubs.  
 American Federation of Teachers, AFL.

- American Home Economics Association.  
American Jewish Congress, Women's Division.  
American Legion.  
American Legion Auxiliary.  
American National Red Cross.  
American Newspaper Guild, CIO.  
American Occupational Therapy Association.  
American Radio Association, CIO.  
American Veterans of World War II.  
American Women's Voluntary Services, Inc.  
AMVETS Auxiliary.  
Association of the Junior Leagues of America, Inc.  
Bakery and Confectionery Workers International Union of America, AFL.  
Barber and Beauty Culturists Union of America, CIO.  
Blinded Veterans Association.  
B'nai B'rith.  
Boys' Clubs of America.  
Bricklayers, Masons and Plasterers International Union of America, AFL.  
Brotherhood of Maintenance of Way Employees, AFL.  
Brotherhood of Painters, Decorators and Paperhangers of America, AFL.  
Brotherhood of Railroad Signalmen of America, AFL.  
Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express, and Station Employees, AFL.  
Camp Fire Girls, Inc.  
Catholic War Veterans of the U. S. A.  
Communications Workers of America, CIO.  
Congress of Industrial Organizations.  
Congress of Women's Auxiliaries of the CIO.  
Cooperative League of the U. S. A.  
Czechoslovak National Council of America.  
Disabled American Veterans.  
Fraternal Order of Eagles.  
Glass Bottle Blowers Association of United States and Canada, AFL.  
Girl Scouts of the United States of America.  
Insurance Agents International Union, AFL.  
International Association of Bridge, Structural and Ornamental Iron Workers, AFL.  
International Association of Fire Fighters, AFL.  
International Association of Machinists, AFL.  
International Brotherhood of Blacksmiths, Drop Forgers and Helpers, AFL.

- International Brotherhood of Pulp, Sulphite and Paper Mill Workers, AFL.
- International Chemical Workers Union, AFL.
- International Hod Carriers, Building and Common Laborers Union, AFL.
- International Photo Engravers Union of North America, AFL.
- International Typographical Union, AFL.
- International Union United Automobile Workers of America, AFL.
- International Union of Brewery, Flour, Cereal, Soft Drink and Distillery Workers, CIO.
- Jewish War Veterans of the U. S. A.
- Junior Chamber of Commerce, U. S.
- Knights of Columbus.
- Ladies Auxiliary to the Veterans of Foreign Wars.
- Lions International.
- Marine Corps Reserve Officers Association.
- National Association of Broadcasting Engineers and Technicians, CIO.
- National Association of County Officials.
- National Association of Insurance Agents.
- National Association of Letter Carriers, AFL.
- National Association of Negro Business and Professional Women's Clubs.
- National Congress of Colored Parents and Teachers.
- National Congress of Parents and Teachers.
- National Council of Catholic Men.
- National Council of Catholic Women.
- National Council of Jewish Women, Inc.
- National Council of Negro Women.
- National Federation of Business and Professional Women's Clubs, Inc.
- National Federation of Post Office Clerks, AFL.
- National Home Demonstration Council.
- National Jewish Welfare Board.
- National Ladies Auxiliary, Jewish War Veterans of the United States.
- National League of American Pen Women, Inc.
- National Maritime Union of America, CIO.
- National Panhellenic Conference.
- National Rural Electric Cooperative Association.
- National Society of the Colonial Dames of America.
- National Society, Daughters of the American Revolution.
- National Society, Sons of the American Revolution.
- National Urban League.
- Ninety-Nines, Inc.

Office Employees International Union, AFL.  
Oil Workers International Union, CIO.  
Operative Plasterers and Cement Masons International Association  
of United States and Canada, AFL.  
Order of DeMolay, Grand Council.  
Pilot Club International.  
Railway Patrolmen's International Union, AFL.  
Retail Clerks International Association, AFL.  
Rhode Island State Federation of Labor, AFL.  
Rotary International.  
Sons of Norway.  
Textile Workers Union of America, CIO.  
Transport Workers Union of America, CIO.  
Ukrainian Congress Committee of America, Inc.  
Ukrainian National Association, Inc.  
Union Label Trades Department, AFL.  
United Auto Workers Educational Division, AFL.  
United Daughters of the Confederacy.  
United Gas, Coke and Chemical Workers of America, CIO.  
United Packinghouse Workers Union of America, CIO.  
United Paperworkers of America, CIO.  
United Steel Workers of America, CIO.  
United Stone and Allied Products Workers Union of America, CIO.  
Vermont Federation of Labor, AFL.  
Veterans of Foreign Wars of the United States.  
WAC VETS.  
Window Glass Cutters League of America, AFL.  
Women's Auxiliary to the American Medical Association.  
Young Women's Christian Association of the United States of  
America.  
Zonta International.

In addition to the above list, other organizations, such as the General Federation of Women's Clubs, have carried on a year-round program of public education and volunteer registration among their member groups.

Concurrently with the campaign, an Initial Civil Defense Action Program was provided to the States and cities to help them maintain the interest of organizations and their members between the time they register their willingness to enroll and the time when they are actually called upon for civil defense duty. This program was designed to fill the gap that might exist between registration and recruitment where operational needs and training facilities do not warrant ready absorption of volunteers into the organized civil defense services. It also serves as a means of maintaining the interest

of persons who can participate in family civil defense activity but not in the regular services.

This initial action program for civil defense registrants was based on State and city experience. It aimed at immediate, simplified action in the following areas: (1) family civil defense; (2) home and family group programs; (3) special home defense programs, including the Blood Program and Ground Observer Corps (4) Red Cross training; and (5) local "Schools for Survival."

The Pledge for Home Defense program, which will be a continuing one, was actively participated in by 45 of the 48 States and several of the territories. Certain national organizations will cooperate with local CD directors in a similar campaign during 1953.

Many national organizations have active civil defense committees and programs at the national, State, and local levels. Hundreds of national organizations have carried a continuing series of civil defense articles, editorials, and feature stories in their membership publications. Some have reprinted the full text of FCDA public education booklets as a public service contribution to their members.

## Women's Participation

Recognizing that women play a key role in civil defense, FCDA has developed a widespread program of women's participation, primarily through 70 national women's organizations, with memberships totaling many millions.

Most of the 28 members of FCDA's National Advisory Committee on Women's Participation are representatives of the country's leading women's organizations.

Thirty-six national women's organizations participated in the voluntary registration campaign and in the Initial Civil Defense Action Program by sending the Civil Defense Volunteer Registration Guide with sustaining informational material to local units of their organizations. Fifty-five thousand organization leaders received the packet.

Twenty-eight States have volunteer Civil Defense Advisory Committees composed of leaders of women's organizations. At least 38 States have prominent women serving in an executive civil defense capacity. Many cities, counties, and towns have women staff members and committees, composed of organization leaders, who give volunteer service to civil defense.

FCDA provides women's organizations with current civil defense information; counsels on integrating the organizations' civil defense activities into established programs; provides speakers, printed materials, and exhibits for national conventions; and encourages and advises the holding of conferences.

Women's organizations are urging that their members take training at civil defense schools and are financing such activities. Many officials of leading organizations have already taken training at the FCDA schools. Twenty-four State Civil Defense Chairmen of the Ladies Auxiliary, Veterans of Foreign Wars, were graduated from these schools in 1952.

CIVIL DEFENSE PERSONNEL ENROLLED AND CURRENTLY ASSIGNED TO CIVIL DEFENSE DUTIES—SUMMARY BY FCDA REGION AND STATE AS OF AUG. 31, 1952

FCDA, State, territory, and possession	Total population	Number enrolled
States, territories, and possessions.....	153, 694, 423	3, 986, 686
Continental United States.....	150, 697, 361	3, 926, 704
Region 1.....	28, 979, 974	1, 315, 036
Connecticut.....	2, 007, 280	74, 641
Maine.....	913, 774	23, 780
Massachusetts.....	4, 690, 514	106, 344
New Hampshire.....	533, 242	15, 130
New Jersey.....	4, 835, 329	205, 000
New York.....	14, 830, 192	866, 467
Rhode Island.....	791, 896	13, 691
Vermont.....	377, 747	9, 983
Region 2.....	23, 347, 437	586, 885
Delaware.....	318, 085	7, 979
District of Columbia.....	802, 178	66, 881
Maryland.....	2, 343, 001	72, 069
North Carolina.....	4, 061, 929	24, 260
Pennsylvania.....	10, 498, 012	324, 000
Virginia.....	3, 318, 680	63, 016
West Virginia.....	2, 005, 552	28, 680
Region 3.....	16, 865, 285	158, 826
Alabama.....	3, 061, 743	27, 752
Florida.....	2, 771, 305	41, 010
Georgia.....	3, 444, 578	23, 985
Mississippi.....	2, 178, 914	1, 818
South Carolina.....	2, 117, 027	1, 896
Tennessee.....	3, 291, 718	62, 365
Region 4.....	17, 263, 199	359, 780
Kentucky.....	2, 944, 806	30, 284
Michigan.....	6, 371, 766	130, 696
Ohio.....	7, 946, 627	198, 800
Region 5.....	22, 956, 907	315, 305
Illinois.....	8, 712, 176	160, 346
Indiana.....	3, 934, 224	20, 823
Iowa.....	2, 621, 073	5, 137
Minnesota.....	2, 982, 483	98, 032
North Dakota.....	619, 636	9, 455
South Dakota.....	652, 740	18
Wisconsin.....	3, 434, 575	21, 494

## CIVIL DEFENSE PERSONNEL ENROLLED AND CURRENTLY ASSIGNED TO CIVIL DEFENSE DUTIES—SUMMARY BY FCDA REGION AND STATE AS OF AUG. 31, 1952—Continued

FCDA, State, territory, and possessions	Total population	Number enrolled
Region 6	14, 537, 572	166, 528
Arkansas	1, 909, 511	2, 011
Louisiana	2, 683, 516	33, 361
Oklahoma	2, 233, 351	19, 098
Texas	7, 711, 194	112, 058
Region 7	9, 482, 267	212, 833
Colorado	1, 325, 089	54, 708
Kansas	1, 905, 299	28, 287
Missouri	3, 954, 653	73, 960
Nebraska	1, 325, 510	42, 386
New Mexico	681, 187	8, 048
Wyoming	290, 529	5, 444
Region 8	12, 184, 755	677, 375
Arizona	749, 587	14, 065
California	10, 586, 223	653, 545
Nevada	160, 083	5, 123
Utah	688, 862	4, 642
Region 9	5, 079, 965	134, 136
Idaho	588, 637	14, 909
Montana	591, 024	16, 763
Oregon	1, 521, 341	32, 610
Washington	2, 378, 963	69, 854
Territories and possessions	2, 997, 062	59, 982
Alaska	128, 643	1, 948
American Samoa	18, 937	No report
Canal Zone Government	52, 822	No report
Guam	59, 498	2, 486
Hawaii	499, 794	26, 444
Puerto Rico	2, 210, 703	28, 772
Virgin Islands	26, 665	332

## TRAINING AND EDUCATION

By the end of 1952, the Training and Education program of civil defense was beginning to harvest the fruits of careful long-range planning.

The 3,218 civil defense instructors graduated from FCDA training schools since April 1951, had returned to their duties across the Nation. There, under State and city sponsorship, this nucleus of skilled teachers had begun to multiply itself by conducting 650 local civil defense schools and courses, and by graduating more than 200,000 students. These students, together with thousands of others graduated from first-aid and home nursing courses, are now passing on the things they have learned to other civil defense personnel in turn.

In 1952, the FCDA Staff College at Olney, Md., graduated 581 students qualified in civil defense administrative duties. These administrative students came from 46 States, 5 territories, England, and Canada.

The National Civil Defense Training Center at Olney also inaugurated a highly technical training program for wardens, firemen, and rescue workers. On a specially designed "Rescue Street" FCDA trained 150 rescue instructors from 15 States and 2 territories after July 22, 1952. Some of these trainees were from other Federal agencies concerned with defense, such as the Departments of Army, Navy, Air Force, and Defense.

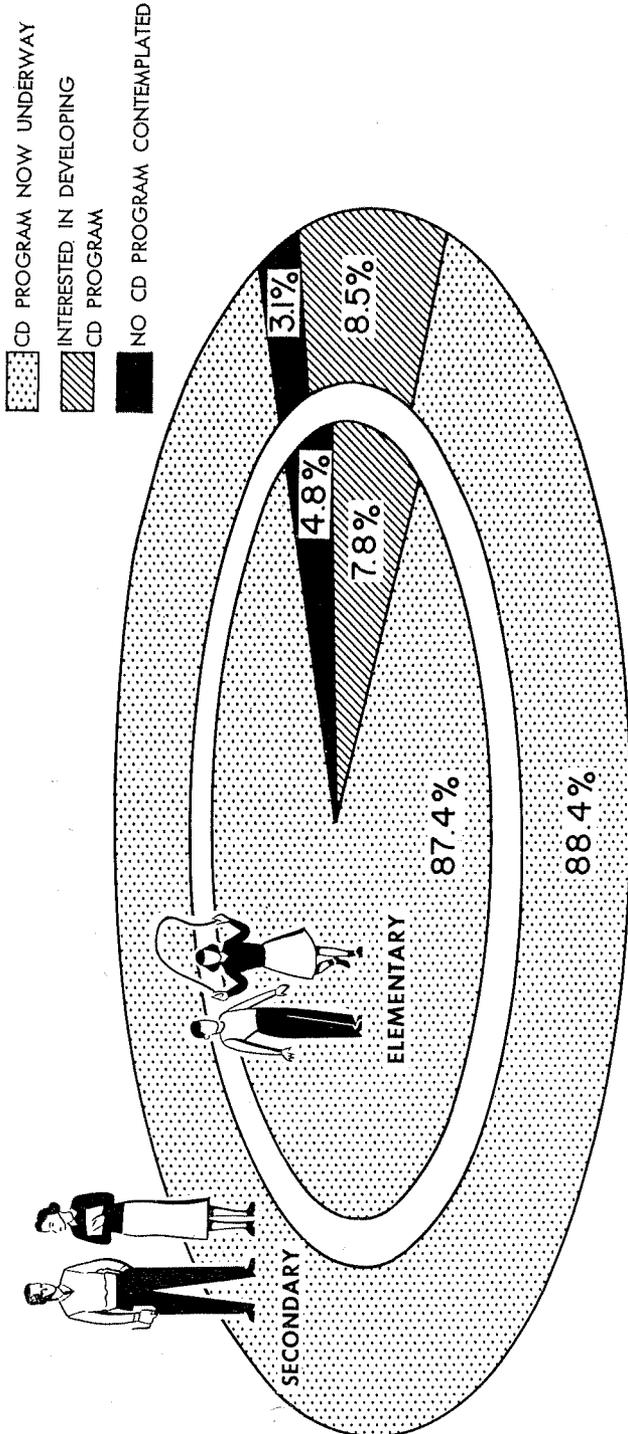
Public and private school education proved a staunch ally. A joint United States Office of Education, and FCDA survey of civil defense activities in 1,468 schools across the Nation indicated almost 90 percent of the elementary and secondary schools had civil defense education programs in operation or in preparation by the end of 1952. Seventy-five percent of institutions of higher learning also expressed active interest in participating in civil defense education projects.

### Objectives and Procedures

The primary objective of the FCDA training and education program is to give advice and assistance to the States and localities in developing a coordinated civil defense training program. Recognizing the potential magnitude of disaster, the lack in many cases of peacetime counterpart skills, and the fact that an effective civil defense depends upon well-trained volunteers, emphasis is upon: (1) initial

# CIVIL DEFENSE INSTRUCTION IN U. S. ELEMENTARY AND SECONDARY SCHOOLS

(BASED ON 1468 SCHOOLS IN 129 INDUSTRIALIZED CITIES WITH POPULATIONS OF OVER 50,000)



NOTE: STATISTICS FROM A JOINT SURVEY MADE BY FSA'S OFFICE OF EDUCATION AND FCDA — JUNE, 1952

training of volunteers, (2) replacement training, and (3) refresher training. There is also the broad objective of fostering through America's schools an understanding of the need for civil defense as an essential continuing factor in our national life.

The major part of civil defense training is carried on by States and localities. The Federal Civil Defense Administration provides guidance and consultation in the training of instructors, coordination of training activities, and such facilities and supplies as are necessary to an efficient training program.

The Federal office consults regularly with the States and localities to improve their training programs. It supplies training materials in the form of bulletins, manuals, and audio-visual aids for State and local programs. It has established two training centers, one in the east and one on the west coast, to instruct key civil defense leaders and instructors from all States and territories.

The Federal Civil Defense Administration also works with educational leaders in both generalized and specialized fields to enlist support for its unprecedented national training program, which in itself is undoubtedly the largest educational undertaking—in terms of numbers of citizens to be trained ever initiated by a Federal agency.

More emphasis than ever before was placed by the FCDA regional offices in 1952 upon assisting the States to develop adequate training programs of their own. By the end of the year special training officers had been assigned to the regional director's staffs in eight of the nine FCDA regions.

## Financing the Program

This year nearly 10 million dollars of Federal funds, and State funds on a matching fund basis, were used for the purchase of training materials and equipment. This contributions program was of substantial aid to the States in setting up courses of instruction for immediate and continuing civil defense education.

Forty-five States, five territories, and the District of Columbia participated in the matching contributions programs. The three States not participating were interior Western States with small populations and no critical target cities.

For each item purchased under the matching contributions program, it had to be clearly shown that the item was necessary for the training of civil defense workers. A large number of the items were additionally valuable, however, in that they can be used operationally in time of emergency.

Thus, while the matching contributions program for training helped the States in purchasing equipment and materials for training pur-

poses it also provided an appreciable amount of equipment and materials that also will be of actual use in the event of attack.

A breakdown by subject areas of the money spent for training under the matching funds program follows:

(a) *General Training and Education*.—Forty States, the District of Columbia, and four Territories purchased \$720,000 worth of training materials and equipment. This included map boards and control boards, duplicating machines, projectors, recording and reproducing machines, 710,000 FCDA training manuals, exhibits and displays, instructional materials, maps, charts, etc., film projector accessories (turntables, screens, lamps, etc.) and training scripts. Thirty-four States and one territory purchased 13,200,000 copies of official civil defense publications at a total cost of \$526,000. Thirty-five States and one territory purchased 3,100 prints of civil defense films at a total cost of \$106,000.

(b) *Communications Training*.—Thirty-five States and three territories purchased \$2,160,000 worth of communications training equipment, including fixed receivers, fixed transmitters, mobile transmitter-receivers, hand and pack-carried transmitter receivers, power generators, field telephones, public address systems, and fixed transmitter-receivers.

(c) *Health and Special Weapons Training*.—Thirty-six States and three territories purchased \$1,770,000 worth of medical training equipment and supplies. This included: mobile units, dosimeters, survey meters, water testing and purifying systems, first-aid supplies, blood donor supplies, laboratory equipment, and radiological accessories.

(d) *Fire Training*.—Thirty-six States and one territory purchased \$1,090,000 worth of fire training equipment. This included mobile pumpers, portable pumpers, extinguishers, hose, oxygen masks, inhalators, self-containing breathing masks, and resuscitators.

(e) *Rescue Training*.—Twenty-seven States and three territories purchased \$2,085,000 worth of rescue training equipment, including 167 rescue vehicles, tool sets, and training facilities.

(f) *Other Civil Defense Service Training*.—The States and cities also purchased through the contributions program training materials and equipment for other civil defense services. For example, eight States purchased auxiliary police training equipment; two States purchased warden service tools and equipment for training volunteers; seven States purchased welfare training equipment.

In the administration of the matching fund program, FCDA analyzed data on local and State training programs—including the numbers to be trained—equipment and facilities locally available, and the type of training to be used in the State and locality, to insure that funds would be used efficiently.

## Training Schools

At present FCDA itself operates two instruction centers: the National Civil Defense Training Center at Olney, Md., and the Western Training School at St. Mary's, Calif., which offer courses for civil defense administrators and instructors.

Because of reduced funds for the fiscal year 1953, the Technical Training School at Ogontz, Pa., which was opened on February 4, was closed and its staff moved to Olney on July 28. For the same reason the Technical Training School at Stillwater, Okla., was closed on August 15. The physical facilities of both schools continue to be used, however, under local auspices and at local expense.

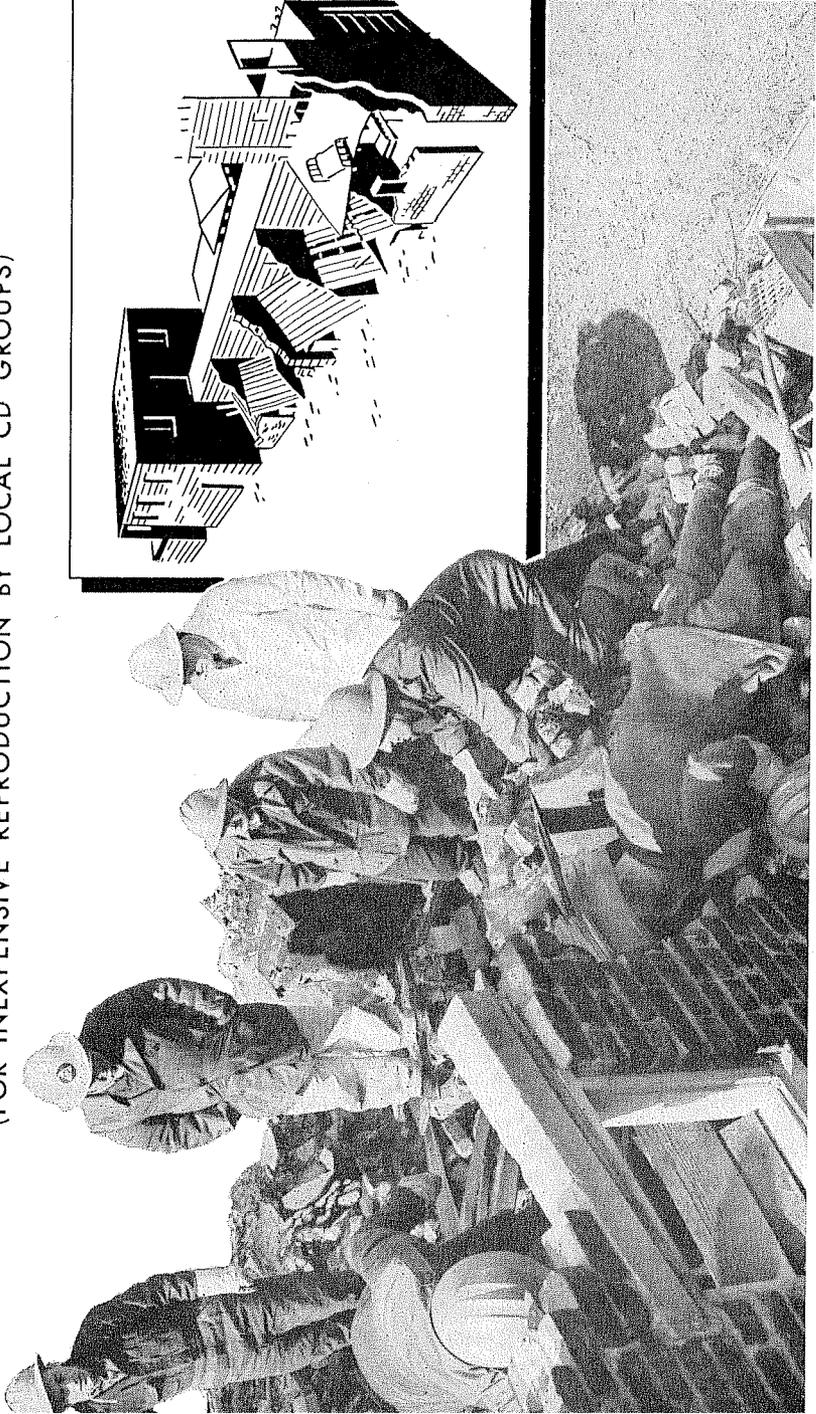
This year the civil defense center at Olney, Md., was reorganized and equipped for basic and advanced rescue training for wardens, firemen, and rescue squads. A high degree of realism is achieved in this training by use of a street of five demolished buildings where wartime rescue conditions are simulated. Trainees learn rescue methods and perform actual rescue operations in five buildings built to duplicate conditions of collapse or ruin such as might result from enemy attack or natural disaster.

The basic types of construction found in American buildings, such as brick, wood or steel frame, and reinforced concrete, are represented in the "Rescue Street." Exercises performed by the students include rescue of "victims" from upper stories of multistory buildings, from flooded basements, and from beneath collapsed floors and piles of rubble. Rescue methods under special hazards such as fire and exposed live electric wires also are studied.

To help local civil defense instructors to develop practical and realistic training experience, FCDA developed a unique rescue facility which is being used at both St. Mary's and Olney. Constructed primarily of used and scrap materials, the facility consists of: full scale buildings demonstrating the three basic types of building collapse; a 2-story structure from which rescues can be made from the upper floors; a fire-proof room where fire-fighting techniques are taught in the presence of actual blazes; and rubble heaps for teaching difficult techniques in the rescue of buried victims.

In this "School for Survival" or basic rescue training set, students practice fire-fighting and rescue operations under conditions of damage which would be met in an actual disaster. The buildings themselves demonstrate the kind of inexpensive training sets that can be constructed in any community in the United States. All of the students attending the schools are supplied with plans and specifications for the construction of such facilities in their own localities. Many students upon returning home have interested local business and industrial leaders in financing the construction of such facilities, thus

**BASIC RESCUE SET FOR COMMUNITY TRAINING**  
(FOR INEXPENSIVE REPRODUCTION BY LOCAL CD GROUPS)



making it possible for their home communities to carry out practical training. To date, 42 municipalities have built or are now building these simple, effective training facilities for their own volunteers.

The Western Training School at St. Mary's, Calif., now serving the western half of the Nation, graduated 339 students and held special conferences for 530 leaders in the medical, police, fire and administrative services, and in community organizations. Students taking these courses come from California, Arizona, Montana, Nevada, Oregon, Utah, Washington, Alaska, Guam, and Hawaii. West Coast representatives of other Federal agencies also attended.

### **Educational Aids**

This year the FCDA prepared eight training bulletins in the training officers series and six in the school series. Each is a four- to eight-page guide giving practical help to persons responsible for the training of civil defense volunteers.

Nine thousand of each of these bulletins were distributed Nationwide. In such States as Maryland and California, and in such cities as Detroit and New York, they were reprinted in whole or in part in quantities large enough to reach all teachers throughout the school systems.

FCDA also has placed in the hands of civil defense instructors lesson plans and audio-visual aids designed to increase the effectiveness of their teaching, and to make preparation for such teaching less difficult. This year a training project to aid local warden instructors was started. This project includes the production of twelve lesson plans and twelve accompanying color film strips with appropriate sound recordings. At year's end the first group of these already had been released.

### **Agency and Organization Cooperation**

In the medical area of civil defense training, the Association of American Medical Colleges and the American Medical Association are actively engaged in developing special instruction in the medical aspects of civil defense, such as the effects of atomic blasts, burns, and radioactivity. Testing of these courses already is in process in several proprietary and State medical schools throughout the Nation. When initial testing is completed, every medical school will include special civil defense instruction in its regular curricula.

In January, the Administrator held a 2-day conference with FCDA's training and education advisory committee, which is composed of national leaders representing public and private educational groups. The recommendations of this committee have aided FCDA in formu-

lating basic principles and procedures for the development of civil defense education.

Federal Civil Defense Administration officials have participated in programs and acted as consultants in meetings, conferences, and workshops of approximately 40 public and private educational organizations, representing an aggregate student body of more than 35,000,000. The FCDA staff members assigned to educational activities have maintained continuous liaison with the personnel of these same organizations.

Six special section committees of the National Education Association studied the contributions which civil defense education could make to their school programs. The sections were: The American Association for Health, Physical Education, and Recreation; the American Association of Secondary-School Principals; Department of Elementary School Principals; National Commission on Teacher Education and Professional Standards; National Council for the Social Studies; and National Science Teachers Association.

The committees submitted reports on methods for stimulating interest and integrating civil defense education into school and college programs in various areas including: committee report on teacher education; civil defense in the social studies; science education in civil defense; civil defense and the school principal; and education for civil defense in health instruction and physical education.

The reports contained practical suggestions for teaching and outlined possible curricula for school use. Released jointly by the National Education Association and FCDA, thousands of copies of these reports were distributed to the memberships of the educational organizations concerned.

The committee reports proved to be valuable teaching aids in great demand. Some States have met this demand with reprints for all teachers in the subject area involved. Reviews of the report and news items concerning them have been published in national periodicals devoted to education.

The committee reports of the Department of Elementary School Principals and of the American Association of Secondary-School Principals were consolidated and republished in a professional journal for circulation to high school principals.

The report of the teacher education committee was widely used in special teacher education meetings, conferences, and workshops. A number of colleges and universities have invited FCDA personnel to provide consultation and experience in planning additional programs for civil defense education.

The U. S. Office of Education—FCDA survey report entitled "Civil Defense Education Activities in Schools and Colleges," was given Nation-wide distribution throughout the teaching profession.

## THE CIVIL DEFENSE SERVICES

During the year, FCDA Regulation 1707 was published, establishing the United States Civil Defense Corps as a collective designation covering the individual State and local Civil Defense Corps to promote a general uniformity of civil defense organization throughout the Nation.

The Corps consists primarily of 11 basic civil defense services and such other supplementary services as may be authorized by the States or localities. The basic services are: Communications (including attack warning), engineering (including shelter), fire, health, police, rescue, staff, supply, transportation, warden, and welfare.

The functions of each service are as follows:

*Communications.*—Operates civil defense attack warning and communications systems.

*Engineering.*—Applies engineering measures to minimize damage to essential utilities, sanitation services, transportation, and other vital community services and for their emergency restoration. Makes shelter surveys and provides guidance for the construction or improvement of shelter areas.

*Fire.*—Contains and extinguishes fires resulting from enemy attack.

*Health.*—Renders necessary civilian health and medical services in event of enemy attack, detects the presence and minimizes the effect of atomic, radiological, chemical, or biological agents and materials in attacked areas.

*Police.*—Protects life and property, maintains law and order, regulates and controls traffic to expedite the movement of emergency vehicles and personnel. Detects, isolates, and reports unexploded ordnance.

*Rescue.*—Removes trapped and injured persons from damaged buildings and structures. Administers necessary first aid to victims.

*Staff.*—Performs executive and administrative functions of a civil defense corps, and includes public information, training, volunteer manpower, clergy, and organization of facilities self-protection.

*Supply.*—Executes program for procurement, warehousing, and release of civil defense supplies, equipment and materials.

*Transportation.*—Mobilizes and uses transportation resources for the movement of persons, materials, and equipment necessary to civil defense emergency operations.

*Warden.*—Directs organized self-protection at the family and neighborhood level, and supports and supplements all other civil defense services.

*Welfare.*—Provides emergency feeding, clothing, bedding, shelter, and rehabilitation aid. Provides for welfare service in evacuation where required.

In major industries and institutions, facility self-protection organizations are formed by grouping certain of these services. The individual members are eligible for membership in the Civil Defense Corps.

The FCDA operational activities noted in the following pages provide assistance to local civil defense organizations in the staffing, training, equipping, and operating of these basic services. During the year this assistance was given by holding national regional conferences on specific phases of civil defense, by providing States with direct technical guidance; and by supplying the States with technical publications, bulletins, and reports prepared by specialists.

Additional assistance was given critical target areas to analyze their vulnerability to attack and to plan accordingly; by stockpiling necessary materials and equipment; by administering a program of Federal matching funds to help States and municipalities purchase essential civil defense equipment; and by encouraging and assisting in specialized and combined civil defense exercises.

## **Civil Defense Fact Finding**

FCDA has maintained a small fact-finding staff primarily for the purpose of coordinating and using the results of research carried out by other Government agencies and by private industry and institutions. No effort has been made to duplicate fact-finding activities which already have been carried on in related fields for reasons both of time saving and economy.

A great amount of data has been available to FCDA in such fields as weapons effects, health and welfare, and engineering. In some instances, however, the problems with which FCDA is confronted are peculiar to civil defense. Where no work was contemplated or in progress elsewhere which could be useful in solving civil defense problems, it was of course necessary for FCDA to develop its own technical information.

To fill some of the gaps in existing information Project East River, a comprehensive study of civil defense measures, was substantially completed during 1952. This appraisal undertook to determine the best combination of nonmilitary measures which would minimize the effects of attack on the United States by atomic, biological, chemical, and other weapons.

This fact-finding effort was sponsored by FCDA in cooperation with the National Security Resources Board, and the Department of De-

fense, and was carried out by Associated Universities, Inc., an organization representing nine leading eastern universities. The reports and recommendations of this group will provide a basis for critical examination of civil defense plans, programs, and policies.

There also remained, despite extensive testing of atomic weapons, many unsolved problems concerning the effects of such weapons on civil defense planning. No other Government agency contemplates, or is working on, a program of fact finding in that area.

During 1952, therefore, FCDA completed and submitted to the Atomic Energy Commission an over-all program for civil defense testing at atomic proving grounds. Included were designs, site plan drawings, and specifications for typical structures and recommended shelter types to be subjected to actual atomic blasts.

Although much information exists on World War II civil defense experience in various countries, it is of limited usefulness to civil defense planners in its present form due to the enormously increased power of modern weapons. All of it must therefore be reevaluated in the light of today's attack assumptions.

In order to take advantage of such material as is still useful or translatable, FCDA initiated during 1952 a comprehensive analysis of existing data relating to anticipated physical damage, fire effects, economic aspects, and health and welfare problems. Through a contract with Stanford Research Institute, FCDA is conducting a study of the probable economic impact of the physical damage expected from attack on American cities.

The distribution of population in American cities differs greatly in the daytime and nighttime hours, and the facts about that distribution are vital to our casualty estimates. Therefore the Bureau of the Census, at the request of FCDA, completed during 1952 a list of daytime population for 99 cities in target areas. These figures are being used in technical planning for shelter and civil defense emergency operations.

A cooperative study of defense against chemical warfare attacks was undertaken by FCDA with other Government agencies during 1952. Under this program certain protective items were developed with the help of the Army Chemical Corps and private industry for the protection of the human respiratory system against chemical and biological warfare agents and radioactive particles.

## Technical Guidance and Information

If attack should come, organized civil defense workers would need skilled and specialized training on a scale not previously known in this country. The tremendous task of meeting civil defense problems

calls for a vast amount of technical leadership and information. FCDA is responsible for providing such information and leadership to the State and local civil defense organizations. Publications, conferences, personal contact, and correspondence aid them in planning, organizing, staffing, training, and operating the various civil defense forces. These activities supply information and guidance to:

(a) *State and local agencies*, through a pattern of national, regional, State, and local area civil defense organizations.

(b) *Federal agencies*, through the coordinating framework of Executive Order 10346 to secure adequate plans for the maximum utilization of the resources of all Federal agencies for civil defense purposes.

(c) *General and selected segments of the public*, to gain and maintain uniform public knowledge of civil defense measures.

Much of this technical information was given in the form of administrative guides, manuals, handbooks, and bulletins. Total printings of most of these publications was limited, however, because of lack of funds available for the purpose.

### **Administrative Guides**

During 1952, the following three administrative guides were published:

1. *Emergency Welfare Services*, Pub. AG-12-1, 1952, 20 cents, 62 pages. Guide for developing a program to meet the multiple welfare problems that would arise from enemy attack.

2. *Engineering Services*, Pub. AG-13-1, 1952, 15 cents, 25 pages. Assists State and local civil defense directors in planning and establishing their engineering services.

3. *The Supply Service*, Pub. AG-6-1, 1952, 20 cents, 50 pages. Assists State and local civil defense directors and supply officials in establishing adequate supply programs.

### **Technical Manuals**

During 1952, the following 10 technical manuals, 2 handbooks, and 10 bulletins were published:

1. *Blood and Blood Derivatives Program*, Pub. TM-11-5, 1952, 40 cents, 179 pp. Describes Federal, State, and local organization and operation of a civil defense blood program.

2. *Civil Defense in Schools*, Pub. TM-16-1, 1952, 15 cents, 32 pp. A guide and reference for local and State superintendents of schools in organizing and operating programs for the self-protection of schools, their physical facilities, staff, and students.

3. *Fire Effects of Bombing Attacks*, Pub. TM-9-2, 1952, 20 cents, 42 pp. Summarizes data on World War II bombing attacks and

suggests a method of appraising fire susceptibility of cities to minimize the effects of mass fires.

4. *Interim Guide for the Design of Buildings Exposed to Atomic Blast*, Pub. TM-5-3, 1952, 15 cents, 34 pp. Suggests to architects and engineers methods of increasing the strength of new buildings to resist atomic blast, and points out hazards which should be considered in the design of shelter areas in buildings.

5. *Organization and Operation of Civil Defense Casualty Services—Part III—Medical Records for Casualties*, Pub. TM-11-3, 1952, 15 cents, 31 pp. Recommends medical records and forms for uniform use by all States in the handling of casualties resulting from enemy attack.

6. *Radiological Decontamination in Civil Defense*, Pub. TM-11-6, 1952, 15 cents, 31 pp. Provides information for all radiological defense personnel and serves as an operations manual for decontamination crews.

7. *Shelter from Atomic Attack in Existing Buildings, Part I—Method for Determining Shelter Needs and Shelter Areas*, Pub. TM-5-1, 1952, 20 cents, 53 pp. Instructions, forms and recommendations for use of civil defense directors, survey teams and their supervisors, and technically qualified personnel in conducting a shelter survey.

8. *Shelter from Atomic Attack in Existing Buildings, Part II—Improvement of Shelter Areas*, Pub. TM-5-2, 1952, 15 cents, 22 pp. Offers suggestions to architects and engineers for improving certain shelter areas.

9. *The Nurse in Civil Defense*, Pub. TM-11-7, 1952, 20 cents, 52 pp. Assists key civil defense nurses in planning and operating State and local nursing services.

10. *Windowless Structures—A Study in Blast-Resistant Design*, Pub. TM-5-4, 1952, \$1, 165 pp. Describes methods and procedures for designing windowless structures or windowless portions of conventional structures, based on the dynamic properties of loading; presents principles, methods and formulas for determining the magnitude, duration, and distribution of atomic blast loads on windowless structures.

## Handbooks

1. *Civil Defense Nursing Needs*, Pub. VM-1, 1952, 15 cents, 17 pp. Outlines program for increasing nursing services to insure an adequate supply of nurses in the event of attack or disaster.

2. *Women in Civil Defense*, Pub. VM-2, 1952, 15 cents, 20 pp. Emphasizes the importance of women's participation in the civil defense program.

## Technical Bulletins

1. *Construction and Adaptation of Structures for Rescue Training*, Pub. TB-14-1, 1952, 5 cents, 4 pp. Describes new facilities for rescue training programs and presents criteria for adapting existing structures for such training.
2. *Development Status of Personal Dosimeters*, Pub. TB-11-4, 1952, 5 cents, 4 pp. Describes availability of personal dosimeters and results of tests conducted by the National Bureau of Standards on two types.
3. *Emergency Blood Grouping Laboratory Techniques*, Pub. TB-11-6, 1952, 5 cents, 4 pp. Presents to physicians and blood bank technicians detailed laboratory methods for the determination of blood groups and Rh types in civil defense emergencies.
4. *Emergency Blood Transfusion*, Pub. TB-11-5, 1952, 5 cents, 5 pp. Recommends to physicians and blood bank technicians the minimal procedures for blood transfusions during civil defense emergencies.
5. *Emergency Exposures to Nuclear Radiation*, Pub. TB-11-1, 1952, 5 cents, 1 p. Data on permissible limits of exposure of civil defense workers to nuclear radiations during training activities and emergency operations.
6. *Emergency Measurement of Radioactivity in Food and Water*, Pub. TB-11-9, 1952, 5 cents, 2 pp. Describes to civil defense radiological and health officials a method for rapidly measuring radioactivity in food and water to be consumed in the period immediately following an atomic explosion.
7. *Engineering Equipment Stockpiled for Emergency Water Supply Use*, Pub. TB-15-1, 5 cents, 4 pp. Describes the types of engineering equipment and material which FCDA is currently stockpiling for civil defense use in emergency water supply systems.
8. *Permissible Emergency Levels of Radioactivity in Water and Food*, Pub. TB-11-8, 1952, 5 cents, 1 p. Presents information for civil defense radiological and health officials on permissible emergency levels of radioactivity in food and water to be consumed in the period immediately following an atomic explosion.
9. *Personal Dosimeters for Radiological Defense*, Pub. TB-11-2, 1952, 5 cents, 3 pp. Presents general factors to consider in deciding whether personal dosimeters are necessary in State and local civil defense programs.
10. *The most Promising Personal Dosimeters for Civil Defense Use*, Pub. TB-11-3, 1952, 5 cents, 4 pp. Discusses personal dosimeters generally and points out advantages and disadvantages of most promising current types for civil defense use.

Some 17 additional technical manuals, administrative guides and handbooks were in various stages of preparation at year's end.

Publications completed or in progress at year's end thus totaled 43 titles for 1952. These were produced as part of a continuing program which, in 1951, accounted for the 22 technical manuals, bulletins, guides and handbooks published earlier.

Most States and the majority of target cities and smaller communities had active civil defense organizations by the end of the year. States which had no critical target areas were organizing for support functions. In general, most local civil defense organizations developed a certain degree of operational readiness with the personnel on hand. In the matter of equipment, however, the operational services of the various local organizations were still considerably below minimum requirements at year's end. This was particularly true of the attack warning and communications services.

## ATTACK WARNING AND COMMUNICATIONS

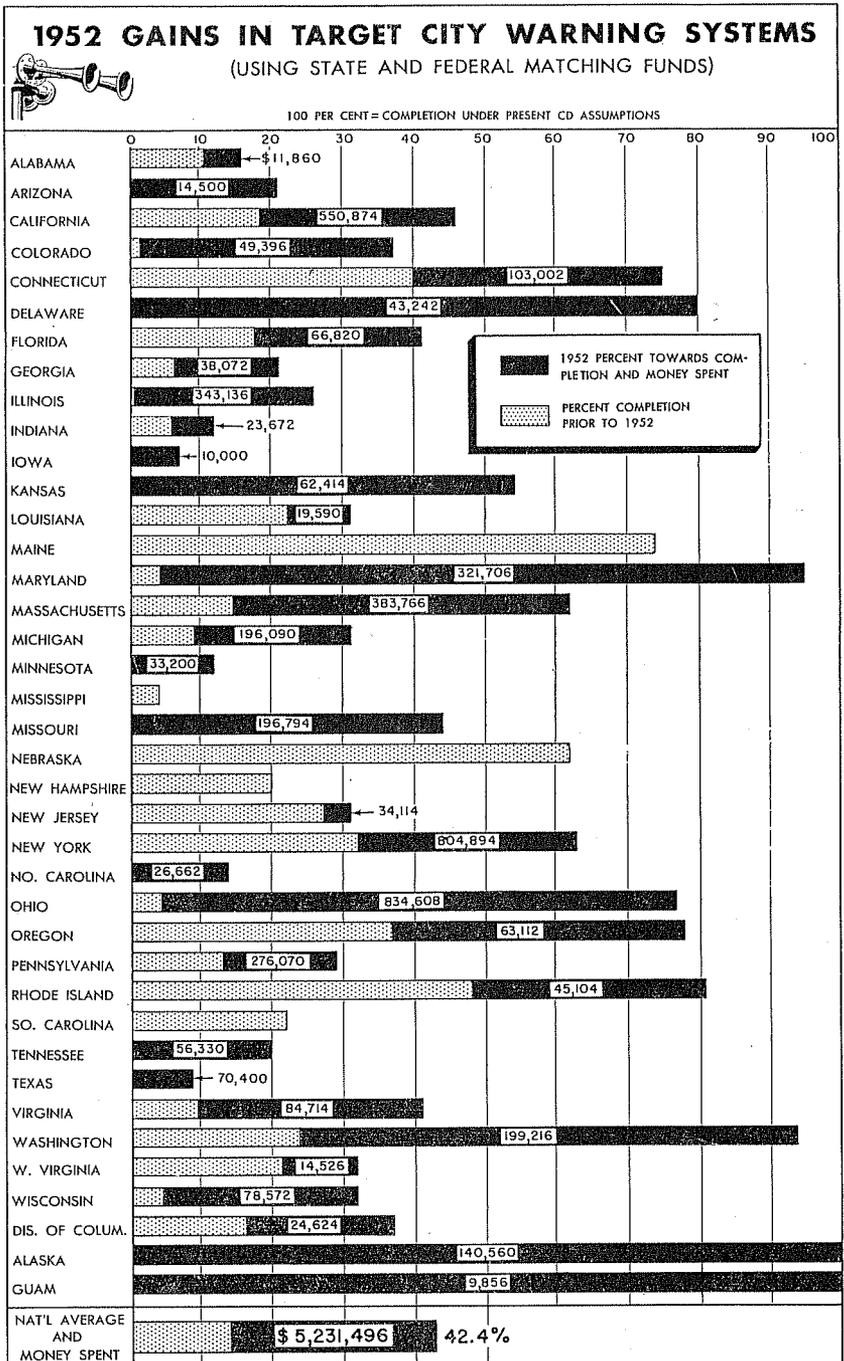
Setting the civil defense machinery into motion and providing adequate warning of impending attack calls for an effective civil attack warning system. Just as important is a well-organized communications system which will permit effective direction of civil defense forces as well as the accurate relaying of civil defense information to the public. In 1952 significant progress was made toward both these goals.

### Attack Warning

In July 1952, the FCDA assumed the responsibility from the Air Force for the supervision and operation of the Civil Air Defense warning net. The CADW net consists of private telephone circuits from the Air Defense control centers to 176 key point air defense warning centers strategically located throughout the country. Each key point warning center has the responsibility for the further dissemination of warnings to an assigned area, thus assuring complete coverage of the entire United States.

Trained FCDA attack warning controllers are stationed in each of the air defense control centers to assure readiness of the alerting systems within their assigned air defense division, and to direct the operation of the civil air defense warning net. At the present time, warning can be disseminated from the air defense control centers to all key point centers within 2 minutes.

In addition to FCDA personnel assigned to the air defense divisions, an FCDA liaison officer has been assigned to each of the three air defense forces to directly supervise and coordinate the activities within



NOTE.—Percent completion prior to 1952 is estimated and represents investment by States and cities from their own funds. FCDA records show no expenditures by States and territories not mentioned.

their assigned areas. There is also an FCDA liaison officer assigned to the Headquarters Air Defense Command to assure coordination of policies and activities between that command, and the FCDA.

A detailed operational study of the attack warning system for the Nation and its territories and possessions is being developed. Criteria have been established which will be used to evaluate present key point locations and to determine where key points should be eliminated or relocated or where additions may be required. A constant evaluation is being made of methods used at all levels of civil defense for the dissemination of warnings and/or intelligence.

In target cities, the attack warning will be carried to the people by warning devices such as sirens, whistles, and horns. With installation of warning device equipment purchased under the Federal contributions program for fiscal year 1952, coverage will be provided for approximately 40 percent of the people in the critical target areas and target areas.

Partial coverage will be provided for 300 cities, counties and municipalities, including the major critical target cities, as well as Alaska, Guam, and the Canal Zone. Federal contributions to be made to States from 1953 fiscal year funds will make possible an increase in coverage to approximately 60 percent.

Evaluation studies were made on new types of warning devices which hold promise of high level sound output at reasonable cost. Engineering standards and criteria governing warning device system installations were further developed during 1952, and specifications covering acceptable devices were released.

Investigations were begun to determine the relative merits of many types of activating systems, including those currently employed. Approximately 300 city and county warning device systems were studied and recommendations were made where improvements were deemed necessary.

The civilian ground observer corps provides the only practical means at present of widening and deepening the advance warning zone. The ground observer corps was organized in 1950 as a volunteer civilian component of the Air Force to man 14,000 observation posts and 49 filter centers along probable air approaches to vital centers in the United States. Although it has no legal responsibility for the corps, FCDA is cooperating, at the request of the Secretary of the Air Force, with the Air Force and State civil defense directors in an educational program and recruitment campaign. On July 14, 1952, when the ground observer corps was placed on a round-the-clock operation, it comprised 145,000 members. The minimum need for adequate coverage of observation posts is 500,000 persons.

## Communications

Rapid and effective communications must be maintained between FCDA, its regional offices, and State governments, and among State and local civil defense organizations, if civil defense is to function properly in an emergency. Because severe damage to existing communications can be expected under a heavy attack, the civil defense communications system must utilize a variety of means and be sufficiently flexible to meet any contingency.

The communications program now in effect was based on the recommendations of the advisory group on civil defense communications. Membership in this group included leaders in every field of communications.

FCDA national headquarters is connected with its nine regional offices and the 48 State civil defense offices by teletype. Tentative arrangements have been made with the Department of Defense and other government agencies for the handling of civil defense messages between the Continental United States and the territories. Communication plans have been completed to provide for operation of FCDA national headquarters at alternate locations in an emergency.

Plans for the implementation of the Radio Amateur Civil Emergency Services (RACES) have been completed, and this program, providing for coordinated use of "ham" operators in civil defense, is now under way. Arrangements also have been made for the participation of the Military Affiliated Radio Service (MARS) and the mobile support units of the civil air patrol in civil defense communications.

The "CONELRAD" plan, providing for limited operation of AM radio during attacks, was released in December. The plan is designed to save lives through the broadcasting of accurate official information and civil defense self-protection instructions, and at the same time to deny the use of radio stations as navigational aids to an attacking enemy force.

In 1952, the detailed operational plan was completed, funds established for line rental, and station programming patterns developed.

The broadcasting and telecasting industries have already invested \$1,500,000 of their own funds in facilities necessary to the Conelrad plan. Through the cooperative efforts of these industries, of several Federal agencies, and civil defense organizations at national, State and local levels, the Conelrad plan is expected to be operative early in 1953.

Progress was made in 1952 in developing an emergency radio communication program in target areas. This program is designed to assure continuity of service to the target areas, support areas and State coordination control headquarters. It provides a means of

two-way communications between control centers and civil defense teams such as wardens, fire fighters, rescue, and engineering groups. The program, financed in part by Federal contributions, also will provide equipment for effective emergency use of existing communications facilities.

When communications equipment purchased with fiscal 1952 contributions funds is in operation, partial coverage of radio communication facilities will be provided for approximately 254 cities and counties in 25 States, the District of Columbia and Alaska. This equipment, together with the existing facilities listed above, will provide for approximately 27 percent of the civil defense needs for operational radio communications. Response from the several States to the fiscal 1953 contributions program indicates that approximately \$1,500,000 of Federal funds will be requested for the expansion of the communications systems started in 1952, and for the initiation of programs in States which did not take part in the fiscal 1952 contribution fund program. Partial coverage also will be extended to the territories and possessions.

### POLICE SERVICES

In addition to their normal duties of law enforcement and traffic control, the police services in civil defense emergencies will be responsible for unexploded ordnance reconnaissance, prevention of looting, patrolling contaminated and special danger areas, and the enforcement of civil defense regulations.

One of the most important tasks confronting the police services in civil-defense emergencies will be that of traffic control. Control of traffic must be quickly established so that essential equipment, supplies and personnel can be moved where needed.

As a result of consultations with outstanding authorities in the fields of policing, highway traffic engineering, and transportation, FCDA has developed a technical training course in emergency traffic control. This course is conducted by means of a contract with Northwestern University Traffic Institute. It is designed to show how the integrated services of the police, traffic engineering, and transportation officials can bring about a well-coordinated emergency traffic control plan in a minimum of time.

During 1952 a pilot course in traffic control was presented at Northwestern University. This was followed by similar courses, each two weeks in length, which were presented at the University and at four other locations in different parts of the country. A total of 256 State and local officials have attended these courses.

Through the medium of closed circuit television, eleven thousand policemen, both regular and auxiliary, in ten different cities participated in a special training session conducted jointly in 1952 by State and local police leaders and civil defense officials. The nature of police problems in civil defense emergencies was explained, followed by two-way discussions of special problems from the cities participating. This technique enabled policemen in these cities to address their remarks and questions to specific experts on a panel in Washington while the rest of the audience observed. The session proved extremely effective both as a training technique and as a forum for uncovering special civil defense police problems worthy of a further study and development at all levels.

FCDA also sponsored a regional police institute during the year which was attended by more than 175 key persons concerned with police activities. In cooperation with the Department of Defense, a detailed program of police procedures was developed for unexploded ordnance reconnaissance during civil defense emergencies. Arrangements also were made for training State and local civil defense personnel in some of the techniques of unexploded ordnance reconnaissance at Department of Defense special schools.

FCDA continued to render leadership and assistance to State and local officials in emergency operational plans for civil defense police services.

## RESCUE SERVICE

If an attack were launched against any of our large cities, thousands of individuals would be buried under the debris of demolished or damaged buildings. Many lives could be saved if adequate numbers of trained rescue teams were available to remove these trapped persons.

Although only about 15 percent of the operational forces required for rescue had been recruited by year's end, steady progress has been made by the States and local communities in building up their rescue services. To date, 167 rescue vehicles and 316 sets of tools for training purposes, costing over \$2,000,000, have been purchased under the fiscal 1952 Federal contributions program with the Federal Government sharing half of the total cost. FCDA's rescue vehicle demonstration project, in which nine fully equipped rescue trucks visited 275 cities in 40 States, was an important factor both in stimulating these purchases and in informing the public of the program.

The training program instituted during the year at the national civil defense training center, which makes use of the "Rescue Street" described on page 69 has proved extremely valuable in teaching rescue skills and techniques under conditions very similar to those which

would exist following an atomic attack. The rescue street was designed and constructed on the basis of extensive studies of structural damage in foreign cities during World War II, combined with current knowledge of the effects of atomic blast.

The sets comprising the rescue training street serve as prototypes for similar construction and as valuable guides for adapting existing structures for rescue training at State and community levels. Financial assistance for constructing such sets is provided under the Federal contributions program.

During the final stages of construction of the rescue street, FCDA had expert assistance from the foremost British authority on rescue techniques and training methods. The chairman of the rescue advisory panel of the British civil defense organization was invited to assist in the final detailed planning for these training facilities, and to give the training staff the benefit of his experience in the methods of rescue operations as practiced by the British civil defense forces both during World War II and in planning and developing present British rescue training facilities.

Detailed procedures and techniques for performing rescue operations were prepared for publication in a technical manual. Copies of this manual were distributed to State and local civil defense officials completing FCDA advanced rescue training courses. These officials also were supplied with plans and recommendations for establishing their own local rescue training programs.

Special instructions for building recommended rescue training facilities, and guides for adapting existing structures to provide similar facilities, were widely distributed in December to expedite State and local participation in the matching fund program.

FCDA cooperated with Reo Motors, Inc., to produce a motion picture on rescue operations to be used to help train rescue teams and others in the operation of rescue services.

## TRANSPORTATION SERVICE

Under attack conditions, civil defense forces must mobilize the skilled transportation manpower, the equipment and the supplies of the Nation to meet civil defense requirements. No city or State will possess within its own borders all resources needed to meet the problem. Outside help must be obtained.

All transportation facilities will be used to supply that help, including airlifts of medical personnel and supplies drawn from support areas of the Nation; relief trains for the long-distance movement of heavy equipment such as fire pumpers, bulldozers, cranes and shovels; and truck and bus convoys for the shorter hauls of similar

teams and supplies of fuel, water and food. Ocean and coastal shipping must be ready to render aid to port areas.

During the past year, FCDA has evaluated the over-all transportation problem of a potential attack and has developed an interim emergency operating plan pending completion of a consolidated national plan. It has submitted the problem through a series of briefings to the transportation segments of the Department of Defense; to other Federal agencies through the office of defense mobilization committee on transportation, storage and port utilization; and to the national transportation industry and its labor groups. A national civil defense transportation conference was sponsored by FCDA and attended by representatives of these national organizations.

As a result of this conference, the Office of Defense Mobilization established a subcommittee composed of representatives of the Defense Transport Administration, Defense Air Transportation Administration, National Shipping Authority, Department of Defense, National Production Authority, and Federal Civil Defense Administration. The subcommittee made a thorough study of the possible effects on transportation of an all-out air attack upon the Nation.

In November, the report of the subcommittee was presented to the ODM-7 Committee on Defense Transportation and Storage.

This report embodies the nature of the problem, showing specific results of such an attack as it affects transportation; it outlines the basis for preattack transportation planning; it enumerates the assignment of planning responsibilities; it recommends the establishment under the direction of the Director of the Office of Defense Mobilization of an interim operating authority capable of functioning until such time as a full war transport authority is established; it accepts the proposed FCDA organization structure at regional, State and local level and proposes that it be used as the meeting ground for all field forces of the Federal agencies necessary to conduct emergency transportation operations; it outlines the procedure for developing the necessary emergency transportation operational plans in the four fields of endeavor, highway, air, rail and water, and the establishment of emergency operational sites for the conduct of such transportation activities.

## **Aviation**

In the air transport field, plans are now well under way for use of private transport planes at the State level. Inventories and registrations are being completed and organization structure is well established.

In the commercial air field, FCDA, the Department of Defense, the defense air transportation administration and the air industry

group are completing an emergency operating plan to concentrate planes for airlift operations.

### **Highway**

With the assistance of the American Trucking Association, the National Association of Motor Bus Operators, the American Transit Association, the National Council of Private Motor Truck Owners, the American Taxicab Association, and the Textile Maintenance Industries Committee, plans for emergency utilization of highways and highway transportation equipment are nearing completion.

Highway traffic control plans are being developed jointly by transportation, police, and traffic engineering personnel, and include provisions for Nation-wide police traffic control training and establishment of a national system of civil defense highways.

### **Water**

During 1952, FCDA and the National Shipping Authority continued the development of working agreements whereby NSA will provide the ocean shipping requirements for a civil defense emergency. Negotiations with the United States Coast Guard are well along on plans for harbor operations and assistance to the development of civil defense harbor organizations and training programs. FCDA has established with the Great Lakes shipping industry a committee which is now developing an operating plan for use of Great Lakes shipping under emergency conditions.

### **Rail**

With the aid of the Association of American Railroads, FCDA is continuing to develop emergency operating procedures for rail movement of civil defense traffic.

## **WARDEN SERVICE**

Civil defense wardens furnish the link between the people of a community and their civil defense organizations. They are responsible for organizing and training individuals in their areas in self-protection and in the collective measures which must be taken for common community defense. The neighborhood organization of the warden service provides the broadest basis for civil defense in the United States.

The work of organizing and staffing the warden service gained speed during 1952. Approximately 550,000 wardens have been enrolled and are being trained. This represents an increase of 206

percent over the figures a year ago and constitutes a nucleus for gradual and orderly expansion.

State and local warden service programs follow for the most part the broadened concept of the new warden service as outlined in FCDA's administrative guide, "The Warden Service" and "The Warden Handbook." Techniques and recommended procedures are being developed and field tested for Nation-wide standardization through the issue of a technical manual for wardens.

A series of seminar type conferences has been developed for presentation during 1953 which will provide State and local warden service leaders with detailed suggestions for a warden training program. It is designed to aid the States in recruiting volunteers as well as to stimulate the entire local civil defense program. Its basis is person-to-person contact and warden-sponsored neighborhood civil defense meetings.

These training programs are well along in most of the larger States. During the first 6 months of the year approximately \$170,000 in Federal contributions were used for warden training projects in the States.

In response to a wide demand for study materials, a program was initiated in 1952 to cover twelve warden subjects with lesson plans, film strips, and other training aids. Of the twelve titles, the first three were distributed during 1952:

Making the Block Map

Making the Block Census

The Role of the Warden in Rescue

## HEALTH AND SPECIAL WEAPONS DEFENSE

Civil defense health services have the responsibility for treating casualties and for taking emergency action to save lives; for restoring public health services; for taking the necessary steps to safeguard people, animals, and crops against biological and chemical attack; and for carrying out radiological defense measures.

### Casualty Services

An all-out atomic attack on our large cities could leave up to 11,000,000 killed and injured in its wake. About 7,300,000 of these persons would survive the first 24 hours. Organization of personnel and facilities to treat these casualties has proceeded under the direction of the casualty services.

A plan for organizing and operating State and local first-aid systems was developed during the year and published as a technical man-

ual in December. Requirements and criteria for training the personnel to man this system also were established.

Approximately 1,130,000 persons received training in first aid from the American Red Cross and the Bureau of Mines, whose courses have been officially recognized for civil defense training.

A detailed program for the use and guidance of nurses in civil defense was developed and published as a technical manual, and a similar program was developed for dentists. In addition, exhaustive studies were made of the availability and distribution of nurses and physicians for civil defense casualty services.

The American Red Cross trained 255,191 home nursing students and approximately 5,000 volunteer nurse's aides during the year. In addition, 43 States have given courses on the nursing aspects of atomic warfare to about 100,000 active nurses, 10,000 inactive nurses, and 6,200 auxiliary personnel.

Consolidated plans were developed for the establishment of civil-defense hospital systems, including provisions for setting up improvised hospitals and suggestions for full utilization of existing hospitals to handle large numbers of casualties. A complete table of equipment for a 200-bed improvised hospital was established. Plans also were drawn up for the use of clinical laboratories in civil defense casualty services.

The national program for emergency utilization of hospital facilities for civil defense purposes involves planning with other Federal agencies, particularly the Veterans Administration, Public Health Service, and the Department of Defense to the extent military requirements will permit.

### **Radiological Defense**

Arrangements were made with the Atomic Energy Commission and the Department of Defense for continued training of State and local radiological defense instructors at the Nevada proving grounds under actual test conditions. This Administration previously participated in radiological safety operations at the Nevada proving ground.

In cooperation with the Food and Drug Administration, Federal Security Agency, plans were drawn up for testing the effects of atomic blasts upon common drugs and biologicals. Approval was obtained from the Atomic Energy Commission to incorporate this project in forthcoming tests.

At the request of the FCDA, the National Bureau of Standards has undertaken a program of evaluating radiological instruments for civil defense application. This program has two basic objectives: (1) to encourage the industrial development of civil defense radio-

logical instruments by aiding manufacturers in evaluating new ideas and techniques, and (2) to insure the adequacy of such instruments purchased for civil defense use by subjecting the instruments to vigorous acceptance tests. Specifications have been developed for two types of organizational dosimeters and three types of radiological survey meters.

Technical data was prepared and released to the States and cities in the following technical publications:

- Radiological Decontamination in Civil Defense.
- Emergency Exposure to Nuclear Radiation.
- Personal Dosimeters for Radiological Defense.
- Promising Personal Dosimeters for Civil Defense Use.
- Development Status of Personal Dosimeters.
- Organizational Dosimeters for Civil Defense Workers.
- Permissible Emergency Levels of Radioactivity in Water and Food.
- Emergency Measurement of Radioactivity in Food and Water.

### **Biological Warfare Defense (People, Animals, Crops)**

Biological warfare defense activities are being conducted cooperatively with the Public Health Service, the Department of Agriculture, the Department of Defense, and the Fish and Wildlife Service of the Department of the Interior.

The Public Health Service, through its Bureau of State Services, intensified its efforts during 1952 to stimulate adequate disease reporting at State, city, and local levels, with particular emphasis on the importance of this procedure as a protective mechanism against biological warfare.

The communicable disease center of the Public Health Service has continued to develop its epidemic intelligence service by training additional medical officers, who are assigned to field stations throughout the country, for prompt detection of biological warfare attacks. With assistance from the FDCA, the Public Health Service is incorporating some biological warfare defense training in its regular public health courses for State and local officials.

Similarly, the Department of Agriculture increased its emphasis during the past year on the detection, diagnosis, and control of animal and crop diseases which might be used as biological warfare agents.

As a result of the cooperative effort of State agricultural and State civil defense agencies, national and regional professional societies, the Department of Agriculture and the FCDA, the coordinated na-

tional program was improved by integrating activities in the fields of veterinary medicine, pathology and entomology, to protect animals and crops against biological attack.

With funds provided by FCDA, the Department of Agriculture has purchased and is maintaining essential laboratory equipment needed to produce vaccines against foreign animal diseases. It also is producing visual aids for instruction in the detection of such diseases. The Department of Agriculture has prepared and distributed widely discussions of biological warfare problems (crop and animal) in relation to quarantine procedures and controls at ports of entry.

The Army Chemical Corps and the Public Health Service have cooperated in making available to this Administration the results of research on protection against biological warfare. Along with the medical services of the Army, Navy, and Air Force, they have aided FCDA in furnishing technical advice and guidance, and in planning methods and procedures, for the prevention and treatment of biological warfare casualties.

### **Chemical Warfare Defense**

The Army Chemical Corps has aided in the defense against biological and chemical warfare agents and radiological particles by developing several models of an effective, noncombatant gas mask. These masks were made available to the States under the 1953 contributions program to provide respiratory protection for civil defense workers.

Several other types of effective and inexpensive masks for civilians of all ages, including infants, are being developed and tested. The objective is to provide respiratory protection against most chemicals, biological warfare agents, and radiological particles. Private industry is cooperating in this project. An evaluation of the current production potential for civilian protective masks has been made and a continuing effort to devise means of greatly increasing this potential is under way. A development program for low cost, light weight canisters is being carried on, and current production models of civilian fire and rescue masks have been submitted to the Army Chemical Corps for testing and evaluation in the hope that they may be adapted for use in the presence of chemical warfare agents.

Field trials of self-injection devices for the administration of atropine in the treatment of nerve gas poisoning, conducted by the Army and participated in by FCDA personnel, have resulted in a fair evaluation and standardization of presently available antidotes.

Cooperation with industry and government agencies has led to

## 1952 MEDICAL SUPPLY AND EQUIPMENT PURCHASES ON THE FEDERAL-STATE MATCHING FUNDS PROGRAM



FIRST AID STATIONS \*



PAPER BLANKETS

ANTIBIOTICS  
(DAILY DOSES)

PLASMA UNITS



BLOOD EQUIPMENT

	FIRST AID STATIONS *	PAPER BLANKETS	ANTIBIOTICS (DAILY DOSES)	PLASMA UNITS	BLOOD EQUIPMENT
CALIFORNIA	683	373,200	195,392	38,606	378,000
COLORADO	26	—	334	—	500
CONNECTICUT	222	—	134,201	—	10,045
DELAWARE	53	3,375	11,500	209	750
FLORIDA	4	—	—	—	—
ILLINOIS	2	100	—	—	—
INDIANA	181	—	62,751	—	11,000
KANSAS	80	3,000	52,500	—	3,000
KENTUCKY	—	1,000	2,500	—	1,836
MAINE	10	—	—	—	—
MARYLAND	150	30,000	82,068	4,351	15,000
MASSACHUSETTS	413	57,150	373,756	—	333,888
MICHIGAN	217	—	27,768	—	94,063
MINNESOTA	28	—	—	—	500
MISSOURI	—	50	2,568	—	10
NEBRASKA	8	2,320	—	—	—
NEW HAMPSHIRE	10	1,000	—	—	—
NEW JERSEY	140	17,075	121,136	—	22,734
NEW YORK	1,451	80,000	2,541,668	36,834	1,200,000
NO. CAROLINA	60	—	36,000	—	600
NO. DAKOTA	2	100	250	—	—
OHIO	332	202,481	732,173	—	41,225
OKLAHOMA	35	—	—	—	—
OREGON	30	3,350	26,044	—	38,050
PENNSYLVANIA	1,650	660,000	495,000	—	301,410
RHODE ISLAND	21	137	819	—	302
TENNESSEE	220	—	—	—	—
UTAH	—	2,000	—	—	200
VIRGINIA	58	1,000	4,834	—	600
WASHINGTON	192	64,662	75,000	—	73,014
W. VIRGINIA	20	—	—	—	—
WISCONSIN	110	308	33,850	10,000	13
ALASKA	20	—	63,334	—	12,000
DIS. OF COLUM.	40	20,000	74,000	9,179	8,000
HAWAII	100	10,000	189,167	1,400	6,036
PUERTO RICO	33	—	—	—	27,000
GUAM	1	100	500	—	—
<b>TOTALS</b>	<b>6,602</b>	<b>1,532,408</b>	<b>5,339,113</b>	<b>100,579</b>	<b>2,579,776</b>

\* NOTE: EQUIPPED FOR IMMEDIATE USE ONLY

the development of improved and less expensive units for self-administration of atropine in nerve gas poisoning.

The Department of Defense manual "Treatment of Chemical Warfare Casualties" was recommended by FDCA as a basic publication on chemical warfare defense, and has been made available to State and city civil defense authorities.

### **Emergency Sanitation**

Recommended programs were developed for emergency water supplies and emergency sewage and refuse service. This information was distributed to States and cities in technical manuals and bulletins.

In addition, studies were conducted on emergency food sanitation, special aspects of water supply and sewage, emergency household sanitation, and emergency control of insects and rodents. Manuals prepared by the Public Health Service on emergency fly, mosquito, and rodent control were approved and recommended for civil defense use.

Health principles were developed for emergency water filtration and purification units. Additional requirements were studied for mobile emergency chlorinators and water storage and distribution units for improvised hospitals.

### **Medical Supplies and Equipment During 1952**

Progress was made toward meeting the extraordinary demands for medical supplies and equipment which would be required to treat the casualties of an all-out attack.

Local progress in ability to take care of the immediate casualty situation if attack should come has been made by some cities and States. (See facing page.) Generally, this means that when the 6,602 first aid stations have been completed, the cities and States will be able to take care of some 3,300,000 casualties for a few hours.

In addition, Federal funds were invested in civil defense emergency reserves which can be used to reinforce local supplies. When all present orders have been delivered, FCDA will be able to provide emergency supplies for the treatment of only 2,000,000 casualties for the first week. Table on page 94 shows briefly the kinds and quantities and costs of items purchased during 1952 for Federal reserves.

Separate specifications were prepared during 1952 for 200 additional civil defense medical items, raising to 400 the total of item specifications now available. Twenty-five revisions of existing specifications were made to bring requirements up to date, in keeping with new trends of medical research and development. The specifications are being

used both in the procurement of State requirements through the contributions programs, and in purchasing Federal emergency reserve supplies financed wholly by the Federal Government. By June 30, 1953, these specifications will have been applied to the procurement of approximately \$110,000,000 worth of medical supplies and equipment.

#### FEDERALLY PURCHASED MEDICAL SUPPLIES

Program	Item	Amount	Cost
Casualty-----	Reserves of medical and surgical equipment.	For 2,000,000 casualties.	\$29, 900, 318
Blood and shock therapy.	Equipment and supplies for collection and transfusion of whole blood.	2,059,796 sets----	4, 261, 988
	Blood plasma in 500 cc. units.	1,387,771 units --	37, 375, 838
	Plasma expanders in 500 cc. units.	1,500,000 units---	4, 882, 460
	Intravenous and oral solutions in 1,000 cc. units.	695,000 units----	1, 370, 000
Biological warfare defense.	Specially required antibiotics.	1,395,000 doses---	1, 115, 550
	Equipment for rapid emergency production of animal vaccines as required.	-----	117, 236
Radiological defense.	Survey meters to determine extent of radioactivity.	1,000 meters-----	82, 950
Postattack health---	Vaccines and antitoxins for public protection.	25,050,000 doses--	237, 300
Total-----			\$79, 343, 640

#### EMERGENCY WELFARE SERVICES

Emergency welfare services are organized to help homeless persons; dependents of persons killed or injured; and persons who need limited emergency financial aid, particularly in getting back to their jobs. Many people who may have to move to new jobs as a result of enemy attack will need immediate financial assistance. Emergency welfare services also will provide temporarily for separated, and orphaned children, and help to locate and reunite family members.

A degree of readiness to meet emergency needs has been developed through all existing public and private welfare agencies, which will form the nucleus of State and local civil defense welfare organizations in an emergency. During 1952, progress was made toward integrating welfare agencies and related organizations into the civil defense structure at Federal, State, and local levels.

Current estimates are that a total of 2,200,000 civil defense workers will be required to perform emergency welfare duties during a civil defense emergency.

Directors of civil defense emergency welfare services have been appointed in almost all States. Responsibility for providing these services has been assigned to the public welfare departments in at least 40 States. In an increasing number of States, welfare department field staffs are giving leadership and guidance to the localities.

States and cities in all regions advanced their planning during 1952 through participation in Regional, inter-State, and State meetings on emergency welfare services, and in conferences of professional associations. These activities led to better recognition, understanding, and resolution of common problems, and to greater uniformity in national planning for emergency welfare services.

During the year, many States issued plans and written guides, manuals, bulletins, and training material on one or more aspects of emergency welfare services. Many have prepared plans or made revisions in existing plans to follow the recommendations of the FCDA administrative guide on emergency welfare services. States or territories which have prepared such materials include Alaska, California, Connecticut, Georgia, Illinois, Maryland, Massachusetts, Minnesota, New Hampshire, New Jersey, New York, North Carolina, Oklahoma, Oregon, Rhode Island, Tennessee, West Virginia, and Wisconsin. The publications covered such subjects as welfare planning, evacuation, emergency feeding, mutual aid agreements and training guides.

Considerable progress has been made in the planning for, and the techniques of, mass feeding operations during civil defense emergencies. Plans and details for the construction of improvised equipment for emergency mass feeding were widely distributed for the guidance of local emergency welfare personnel. This stimulated activity in several States and cities to promote the use of improvised feeding equipment. In New York and Illinois, for example, local authorities conducted public demonstrations of emergency feeding techniques with improvised facilities.

At the invitation of FCDA, the Director of Emergency Feeding, an Assistant Administrator of the British Ministry of Food, visited 19 cities throughout the United States conferring with 6,000 local welfare and mass-feeding leaders, emphasizing the importance of detailed advance planning for target and support areas and assisting them with specific local problems.

A number of communities have organized some of their established feeding facilities as the nucleus of their emergency feeding programs. Chicago, which has developed its program around the school cafe-

terias, has achieved operational readiness in this respect, and is prepared by this means to feed 600,000 people in the first 24 hours following attack.

Eight southwestern States developed a joint plan to meet the possible movement of people displaced from southern California. Arizona, assisted by FCDA and other Federal agencies, developed planning to meet movement of Mexican nationals who may want to return home in event of a civil defense emergency.

At least 20 cities have adopted programs for the personal identification of their residents in event of a civil defense emergency.

The American National Red Cross and FCDA have continued to cooperate on problems of national disaster relief and civil defense welfare services. In addition to accepting responsibility for planning and operating mass care services for civil defense in many localities throughout the country, the Red Cross entered into a formal agreement with FCDA to expand its canteen service training program to train civil defense emergency feeding workers.

Arrangements were made with the Department of the Army for the use of Quartermaster Corps training personnel and facilities throughout the country to train civil defense instructors in emergency feeding operations under disaster conditions.

The FCDA continued its cooperative work with the Federal Security Agency in developing welfare plans for the emergency, transitional, and postattack periods. Joint activities of the FCDA and FSA regional staffs increased during the year.

Sixteen national, regional, and State welfare conferences used civil defense welfare exhibits, and some also devoted meetings to problems of emergency welfare services.

An interregional welfare workshop in which seven States and 41 cities participated was sponsored in 1952 by the FCDA Western Training School and the FCDA Regional Offices concerned. A joint training institute was held by the four States in the Pacific Northwest.

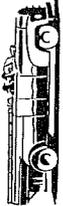
Massachusetts sponsored a series of three, week-long workshops, and several other States conducted State-wide training institutes in emergency welfare services.

Canada and the Territory of Alaska, working with FCDA, have started cooperative planning for emergency welfare services and for an operational plan for evacuating civilians in Alaska.

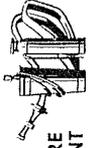
## FIRE SERVICES

During the year FCDA continued to provide leadership in planning for the use and expansion of existing fire-fighting resources. Additional equipment was provided under the contributions program and auxiliary firemen were recruited and trained on a voluntary basis.

1952 FIRE EQUIPMENT PURCHASES ON  
FEDERAL-STATE MATCHING FUNDS PROGRAM



PUMPERS



OTHER FIRE EQUIPMENT	\$ 15,378
TOTAL (50/50) COST	71,504
	8,046
	13,242
	15,460
	12,136
	37,654
	45,608
	151,078
	9,618
	30,770
	16,460
	211,960
	39,116
	21,394
	187,788
	5,308
	23,776
	20,996
	12,222
	3,770
	10,529
	\$ 963,813

	500-750 GPM *	750-999 GPM	1000-1250 GPM	OVER 1250 GPM	TOTAL (50/50) COST
ALABAMA	1	1			\$ 18,012
CALIFORNIA			43		580,930
COLORADO		2			27,020
CONNECTICUT		4			54,040
ILLINOIS	3	5	17		328,626
INDIANA	1				11,788
KANSAS		1			13,510
KENTUCKY		3			40,530
LOUISIANA		4	2		81,060
MASSACHUSETTS		16			216,160
MICHIGAN		14	2		216,160
MINNESOTA	23				80,156
MISSOURI		4	5		121,590
NEW JERSEY		14	14		378,280
NEW YORK	1	59			808,878
OHIO	23	11	2	2	412,504
OREGON	1	1			25,298
PENNSYLVANIA	20	31	3		612,450
RHODE ISLAND		6			81,060
TENNESSEE		7			94,570
VIRGINIA		3			40,530
WASHINGTON		5			67,550
WISCONSIN	21	3	1		13,510
ALASKA					151,945
TOTALS	94	194	89	2	\$4,476,157

\* GPM = GALLONS PER MINUTE

In 1952 FCDA established criteria for measuring the adequacy of local fire services. A continuous program of study and preparation of material on the extraordinary phases of wartime fire fighting was carried out. Criteria have been established to provide the basic data for refinement of tactical plans for fire equipment programs. A survey of water supply with distribution systems as related to fire fighting has been completed. An analysis of all fire-fighting equipment in 34 States also has been made.

By the end of the year a total of 379 pumpers and 611,600 feet of fire hose, together with miscellaneous tools for critical target and support areas, were being procured under the civil defense contributions program. The Federal share of the cost of these items was \$2,752,478.

Approximately 334,000 personnel are now enrolled for fire-fighting duties in the event of an attack.

### ENGINEERING SERVICES

During the year, substantial progress was made in States and target cities in the preparation of operational plans for engineering services. Twelve States and twelve cities have developed effective plans for emergency use of existing service organizations in the fields of construction, engineering, and public utilities.

Many national engineering organizations, such as the Associated General Contractors of America, the American Society of Civil Engineers and the American Society of Mechanical Engineers, are cooperating with the civil defense effort by encouraging their memberships to offer their services, either as operating units or as individuals.

Public works departments of many States, counties and municipalities, as well as public and private utility companies, have enlisted their organizations in the civil defense effort.

Detailed recommendations for the organization and operation of the engineering services at State and local levels were published in February as an administrative guide.

A technical manual covering recommended procedures for use and control of streets and highways during civil defense emergencies was prepared. Recommended procedures for clearing and repairing streets and highways during emergencies also were developed.

A detailed program for the emergency repair and operation of water facilities during emergencies was prepared. A similar recommended program was prepared for the operation of emergency sewage and refuse services.

Preliminary studies were completed for the restoration of public utilities, hospitals, and public buildings, and for harbor, pier and terminal facilities.

Emergency debris clearance will be one of the major problems facing the engineers. An analysis indicates that a typical target city would need to have about 140 miles of access streets cleared in 24 hours. Such a task requires large numbers of bulldozers, crawler shovels, dump trucks, low-bed trailers, air hammers, generators, air compressors, and acetylene cutting outfits, as well as additional heavy equipment and many hand tools. A sampling inventory of equipment available for emergency debris clearance was conducted in 22 counties of 18 States. The *national* availability of equipment from regular users exceeds the *national* requirements for civil defense use. However, there are indications of *local* shortages which must be met by earmarking and assignment of nearby equipment. Many States now are using the pattern established in the sample inventory to complete State-wide inventories of engineering equipment and to develop plans for most effective utilization of such equipment.

Engineering equipment and materials which would be in short supply have been stockpiled. These include pumps and lightweight portable steel pipe to supply water for fire fighting and other purposes; and chlorinators, water purifiers, generators, and special window closure material for hospitals and casualty centers.

Approximately \$7 million worth of such materials is under procurement, much of which is already stored at sites near critical target areas. Although most of the stockpiled items are standard equipment, it was necessary to develop new specifications to provide for their adaptation to planned emergency uses.

Considerable assistance was obtained from the Corps of Engineers in developing specifications and for testing pipe, pumps, and purification units, which are not normal commercial items.

A special planning conference was conducted in 1952 for FCDA regional engineers in preparation for similar conferences in all regions and, subsequently in States and critical targets cities. The training program stressed emergency restoration of vital facilities, the shelter survey program, and utilization and public demonstration of emergency engineering supplies. The program will be available to all States and communities for demonstration and training purposes during the coming year.

Several regional and State engineering conferences were conducted by regional engineers during the year to consolidate their planning programs.

FCDA assisted in planning, developing, and testing prototypes of two devices that have special application in civil defense—an improved atomic bomb air zero locator, and an automatic cut-off valve for water service connections.

The formation of engineering advisory panels was completed to provide advice and assistance on engineering problems. These involve

the civil defense aspects of street and highway systems, water and gas utilities, electric power, pier and terminal facilities, and hospitals, and other community facilities.

## FACILITIES SELF-PROTECTION

The prime targets of any enemy attack would be the Nation's large industrial cities. In these areas are housed a great part of our major production machinery and, during normal daytime hours, a substantial proportion of the skilled workers who man them. Multiple atomic attack on these areas could knock us out of the next war soon after it starts—unless industry is prepared to minimize the threat through adequate advance preparedness.

Guidance has been made available to various industries and institutions to assist them in the development, installation and operation of self-protection organizations. Groups of plants in highly industrialized areas have been encouraged to pool their protective resources and to lend one another their disaster equipment in the event of emergency.

Available information indicates that more than 25 percent of the approximately 125,000 large industrial establishments and institutions in the metropolitan areas have self-protection organizations in operation or in varying degrees of readiness. In many communities, in addition to providing for its own self-protection, industry has been making significant contributions to State and local civil defense, ranging all the way from direct financial support and community action programs to furnishing technical advice.

Because such self-protection programs generally develop from the unique nature of the problem facing the particular plant, industry or institution, it is not possible to report fully on what has happened in facilities self-protection during 1952.

Conferences of major national and regional organizations were held during the year to stimulate development of uniform principles of facilities self-protection.

A technical training course for persons responsible for facilities self-protection has been developed and tested through pilot presentations in four FCDA regions. The course emphasizes the techniques and procedures for establishing realistic industrial CD programs and coordinating such plans with the local civil defense program. Regional offices are cooperating with State and local authorities in making this course available on a continuing basis.

Plans for self-protection programs within all Federal agencies has been accelerated by the Executive order, "Preparation by Federal Agencies of Civil Defense Emergency Plans", issued by the President

in April 1952. FCDA has developed a reporting system which provides for periodic evaluation of these programs. An adaptation of this system will be used by State and local governments to determine the status of self-protection programs in both public and private facilities.

The technical manual, "Civil Defense in Schools", published in April, offers guidance to local and State superintendents of schools in organizing and operating self-protection programs in their facilities.

## SHELTERS

If adequate shelter areas are available, and if warning can be given in time for people to occupy them, casualties from an atomic attack can be cut substantially.

Preliminary results of shelter surveys in a few of the major target cities indicate that, in commercial areas, with a 15 minute warning period, 39 percent of the people can be sheltered in facilities requiring no modification and 25 percent can be sheltered in existing facilities after modification. New facilities need to be provided to shelter the remaining 36 percent.

Therefore, emphasis was placed during 1952 on the use of existing buildings for shelter, and on the incorporation of protective shelter facilities in new construction.

Forty-nine of the 89 major cities of the critical target areas have started shelter surveys in their congested commercial sections. These resulted in a growing realization of the value of protective construction as a civil defense necessity. The surveys are made by volunteer workers with administrative costs borne locally. In many cities the initial commercial district surveys are completed and the studies are being extended to cover the entire city.

To encourage protective construction in new buildings, FCDA has participated with the Defense Production Administration in recommending protective construction when certificates of necessity are granted for essential facilities which cannot be dispersed.

Standards and criteria for protective construction in industrial facilities and hospitals have been published to guide private enterprise and government agencies in granting Federal assistance for such facilities.

Government agencies are incorporating protective standards in the design of their new structures. The General Services Administration has surveyed shelter possibilities in most of the buildings owned and operated by the Federal Government, so that appropriate shelter areas might be designated.

The FCDA published during the past year three technical manuals guided by research data provided by other government agencies, the Lehigh University Institute of Research, and a private firm of technical consultants: "Shelter from Atomic Attack in Existing Buildings, Part II—Improvement of Shelter Areas"; "Interim Guide for the Design of Buildings Exposed to Atomic Blast"; and "Windowless Structures—A Study in Blast-Resistant Design."

### CIVIL DEFENSE SUPPLIES

To alleviate suffering and provide needed assistance to attacked communities during a limited post-attack period, reserve supplies of certain vital items must be established. During the year studies were continued on the development of sources, and methods for use, of necessary materials in the hands of government agencies as well as commercial concerns.

Based on consultation with the States, cities, and other government agencies and industry, FCDA determines the specifications for supplies which are to be purchased partially or completely through use of Federal funds. It also makes necessary arrangements for their procurement, storage, and distribution. FCDA uses the Armed Services Medical Procurement Agency of the Department of Defense for procuring medical supplies and equipment, and the Federal Supply Service of the General Services Administration for procuring engineering, training and education, rescue and miscellaneous categories of supplies and equipment.

Other government agencies, such as the Department of Defense, the Department of Agriculture and the Public Health Service, are providing FCDA with technical assistance in specific procurement fields and are helping with the development of supplementary emergency supply sources. The Public Buildings Service of the General Services Administration has accepted responsibility for acquisition of Federal warehouses, while the operation of warehouses is carried on by the Federal Supply Service.

No target community could hope to have or store all the materials it would need to meet every contingency following an attack. Therefore, the FCDA is implementing a plan whereby critical target areas are being assisted to meet their needs for emergency supplies and equipment after an attack. As certain essential supplies and equipment become depleted locally, they will be supplemented from Federal reserve stocks stored in Federal warehouses within a few hours shipping distance from target areas.

Six warehouses providing approximately 284,800 square feet of space already have been established. An additional 312,200 square

feet of space will be required for the storage of items purchased under the 1952 and 1953 fiscal year appropriations.

In addition to warehouse space, FCDA also has acquired, on a nonreimbursable basis, 41 locations for storage of certain emergency engineering equipment, and 41 locations for commercial cold storage warehouses for storage of blood derivatives.

As of December 31, 1952, procurement orders for Federal emergency medical supplies and equipment in the amount of \$77,241,683, have been placed with purchasing agencies. Approximately \$20,700,000 worth of these items has been delivered to Federal warehouses and other storage locations.

Purchase orders also have been placed for the Federal emergency engineering equipment made possible by the \$6,000,000 appropriated. Each of these areas will receive at least ten miles of pipe and necessary component parts for use in a civil defense emergency.

In addition, orders totaling \$20,000,000 have been placed for the procurement of first-aid supplies and equipment, financed by the contributions program. Approximately \$8,288,000 worth of supplies and equipment procured almost entirely through FCDA have been delivered to the States. FCDA also assisted by ordering \$1,005,000 worth of fire-fighting equipment, \$842,000 worth of rescue equipment, and \$1,999,000 worth of training equipment, all financed under the matching fund program. This investment is aimed at setting in place some of the equipment that would be needed in unusual quantities by civil defense in the event of attack.

Recommended organizational plans, operational procedures, and other pertinent information relative to the development of a supply program were issued in August to all States and cities in the administrative guide entitled "The Supply Service." Detailed instructions covering warehousing, procurement, and other operations during emergency periods are now being developed.

Packaging specifications for all material purchased for stockpile purposes have been established to assure that supplies and equipment will be appropriately packed for long-term storage.

An emergency supply plan and standard operating procedures were prepared for the use of FCDA regional offices. This basic plan embraces from a supply standpoint, the operational plans of other technical services and units comprising the civil defense organization. It establishes general procedures for developing inventories, determining requirements, and reporting overages and shortages of materials, supplies, and equipment.

FCDA also processes applications for construction of buildings or other projects to be used exclusively for civil defense purposes. During the past year, FCDA has given priority assistance to 134 com-

panies furnishing Class B products on Federal, State, and local civil defense contracts. Assistance in obtaining supplies for maintenance, repair and operations (MRO) was given to 26 companies.

## Summary

Establishment of the United States Civil Defense Corps in 1952 provided general uniformity to civil defense organizations throughout the country. The progress and status of the 11 basic services now can be measured in terms of manpower, equipment, and operating plans.

Generally, the services are now manned by an average of 27 percent of their full emergency complement. Trained in the techniques of their specialties and assigned to civil defense positions in their communities, these civil defense workers constitute a reliable nucleus or "cadre" around which the Corps can be rapidly expanded.

Progress in planning is evidenced by the number of cities and States which have held test exercises. FCDA has contributed to this planning by assisting in making local vulnerability analyses, and by providing organizational plans and technical information for the basic services.

The problem of equipping the local civil defense organizations remains a serious one. In some services, such as fire fighting, encouraging progress has been made. In most services, however, it will not be possible to measure the degree of equipment readiness until analyses of requirements versus resources for the target and support areas of the country have been completed.

## CIVIL DEFENSE PREPAREDNESS BY OTHER FEDERAL AGENCIES

In April 1952, Executive Order 10346<sup>1</sup> established the framework for intensified Federal interagency cooperation<sup>2</sup> in a civil defense emergency. This Presidential Order directed planning by each Federal department and agency, in consultation with FCDA, and consistent with military requirements and the continuity of its own essential functions, for the use of its personnel, materials and facilities in civil defense.

Early in 1952 FCDA designed a graphic, black-light visualization on "Defense of the Nation" to present the nature and scope of the civil defense problem to Government agencies. During the year this presentation was made to top executives of most major Federal departments and agencies. In the presentations and the conferences which followed, FCDA officials outlined how the resources of each particular department or agency could be used at the national, State, and local level in a civil defense emergency.

At FCDA's request, civil defense steering committees, composed of four or more members each, were organized in the departments of Agriculture, Commerce, Interior, the Treasury, the Civil Service Commission, Veterans Administration, Federal Security Agency, and Federal Communications Commission. Other agencies named civil defense liaison officers or established formal civil defense offices.

In accordance with Executive Order 10346, all agencies are participating in certain civil defense activities to assure continuity of their essential functions during a civil defense emergency. Typical is the self-protection program. At the request of FCDA, the Public Buildings Service of General Services Administration established criteria and is coordinating self protection in buildings under its jurisdiction; similarly, the Post Office Department developed protective programs for buildings under its supervision. Each agency installed its own system under this direction and many conducted periodic air-raid drills in which records were secured and personnel proceeded to designated shelter areas. On December 12, 1952, all agencies took part in a simultaneous 15-minute air-raid drill as a part of a District of Columbia test exercise.

<sup>1</sup> The complete text of Executive Order 10346 is listed in Appendix D.

<sup>2</sup> Under the Federal Civil Defense Act of 1950 the FCDA Administrator is authorized to delegate civil defense responsibilities to other Federal departments and agencies, review and coordinate their civil defense activities, and utilize existing facilities and resources of the Federal Government.

A number of major defense programs were undertaken which involved cooperation of several agencies with FCDA. For example, joint efforts of the Federal Communications Commission, Department of Defense, and FCDA, together with State and local civil defense organizations and the broadcasting and telecasting industries, resulted in the completion of plans and some installations for CONELRAD.

Present indications point to increased multi-agency cooperation as civil defense programs are accelerated. In this report, cooperative efforts involving several agencies are usually listed under the agency having greatest responsibility for the program.

Highlights of the progress in interagency cooperation, apart from self-protection programs common to all agencies, are listed below. Some projects have been completed, others are continuing; many are being developed and modified as further research and planning make new information available.

## **DEPARTMENT OF AGRICULTURE**

The USDA has accepted responsibility for and is cooperating with FCDA in developing a national emergency food supply program.

The Department has intensified its work on the detection, diagnosis, and control of plant and animal diseases which might be used in biological warfare, and is making the results of its continuing research available to FCDA.

The Forest Service is completing plans for further tests to determine combustion points at which initial fires might start following an atomic explosion.

In addition, the Department is participating in conferences, contributing to publications, and cooperating with FCDA in the development and extension of civil defense into farm and rural areas.

The Forest Service has made available a publication on forest fire fighting for civil defense purposes.

## **ATOMIC ENERGY COMMISSION**

With the cooperation of the Atomic Energy Commission, FCDA invited a group of civil defense observers to witness a nuclear explosion at AEC's Nevada proving grounds on April 22, 1952. Guests included Federal and State civil defense officials, State governors, and representatives of municipal organizations. Also invited were representatives of the press. The test was witnessed by the public on the major television networks. This was the first time that persons without special security clearances were permitted to be present at a continental testing of an atomic device.

AEC also made available certain effects data concerning nuclear explosions, including blast effects on structures and materials; con-

tinued consultation on research projects in fields of fire protection, rescue, shelter, and health for civil defense; and prepared and released on a continuing basis, a revised, unclassified bibliography of material of interest to civil defense specialists.

In addition, it extended facilities at AEC field installations and participated in testing of protective gas masks for civil defense workers and civilians; invited FCDA officials to participate in radiological safety operations under actual atomic attack conditions at the Nevada proving grounds; and is completing negotiations for an FCDA test program under field conditions to obtain engineering data and public demonstration benefits.

### **CIVIL SERVICE COMMISSION**

The CSC is making a study of the status of the Federal employee as a civil defense worker, before and during a civil defense emergency. A Civil Service Commission ad hoc committee of the Federal Personnel Council on Civil Defense is considering the following as they apply to a civil defense emergency: recruitment of personnel; transfer or detail of personnel between Federal agencies; maintenance and safeguard of personnel records; use of Federal personnel by local civil defense organizations; leave and pay problems caused by emergency conditions; feeding and housing of transferred personnel; and compensation in case of injury or death while on duty or on civil defense assignment.

### **DEPARTMENT OF COMMERCE**

#### **Bureau of the Census**

During 1952, at the request of FCDA, this Department completed daytime population estimates, by individual census tracts or enumeration districts, for 99 cities in target areas.

#### **National Bureau of Standards**

The Bureau in 1952 made qualitative analyses of engineering items, such as grease compounds for installation of pipe and for stockpiling purposes, and has undertaken a program of testing and evaluating instruments for radiological detection and measurement.

#### **Bureau of Public Roads**

This bureau provided original drafts of two FCDA publications dealing with emergency operations and repair of streets and highways.

Planning is underway with FCDA to determine inventories and locations of heavy Federal Public Roads equipment to be used nationally in a civil defense emergency.

### **National Shipping Authority (Maritime Administration)**

The Administration cooperated with ODM's Committee on Defense Transportation and Storage in developing plans for emergency utilization of off-shore shipping facilities, both at sea and in port.

### **Defense Air Transportation Administration**

As correlating agency for the Civil Aeronautics Administration and the Civil Aeronautics Board, this agency cooperated with ODM's Committee on Defense Transportation and Storage in developing emergency operational plans for use of all categories of commercial and private military aircraft.

### **Civil Aeronautics Administration**

The CAA reached policy agreements on use of its communications and weather information facilities in a civil defense emergency.

## **DEPARTMENT OF DEFENSE**

The flow of information with the Department of Defense on the effects of special atomic weapons was continued.

In August, the United States Air Force and FCDA launched a joint public education program on air defense, including stepped-up recruitment for the ground observer corps. Prior to this, the Air Force had assigned ground observer corps representatives to 33 State civil defense offices to coordinate activities between the State civil defense director and the Air Defense Command.

The Army Chemical Corps cooperated in the development of an inexpensive mask which provides respiratory protection for civil defense workers against chemical and biological warfare agents and radiological particles. Several models of respiratory system protective items for civilians of all ages, including infants, are being developed and tested.

The Armed Services Medical Procurement Agency continues to purchase all Federal civil defense medical supplies. Generally, FCDA procurement requirements are made jointly with those of the Department of Defense for maximum economy and prompt delivery.

The Department participated in the planning and conduct of joint military and civil defense test exercises at city, State and regional levels. Particularly successful was a joint 40-hour command post exercise in August which involved the Sixth Army and civil defense forces from eight western states and the province of British Columbia.

Civil defense personnel attended various armed services schools throughout the country for instruction in unexploded ordnance reconnaissance, air raid warning procedures, mass feeding under emergency conditions, and other specialized training.

Publications, films, and other training and informational material containing the results of Department of Defense research and experience were made available to FCDA. A typical example was the comprehensive manual on treatment of chemical warfare casualties which was approved for civil defense health services.

The Bureau of Yards and Docks and the Army Corps of Engineers provided technical advice and assistance on specifications for engineering supplies and equipment stockpiled for emergency use. The Bureau of Yards and Docks also provided information and advice on emergency repair of pipe lines.

The Department of Defense supplied transportation personnel for FCDA's Alert America convoys and cooperated extensively in their showing throughout the country.

Arrangements are being completed for active participation of the Military Affiliated Radio Service (MARS) and mobile support units of the Civil Air Patrol in civil defense drills on a Nation-wide basis.

The Department of Defense cooperated with FCDA in assisting the Director of Civil Defense for the Territory of Alaska to establish basic civil defense plans, and to coordinate Alaskan civil defense measures with military defense planning.

In addition it made available to FCDA the studies prepared for it by the Stanford Research Institute on the coincidence of population and industry in selected critical target cities.

Other areas of Department of Defense cooperation include providing research and planning information and participation in projects such as CONELRAD and the National Blood Program.

## **DEFENSE TRANSPORT ADMINISTRATION**

This agency cooperated with ODM's Committee on Defense Transportation and Storage in formulating national plans for emergency surface domestic transportation, including highway, rail, inland water, port, and storage.

## **FEDERAL COMMUNICATIONS COMMISSION**

On August 8, the FCC completed and put into effect rules and regulations governing the Radio Amateur Civil Emergency Service (RACES), facilitating the organization of local RACES groups for civil defense.

It also reached policy agreement and drew up partial plans with industry on protection of communication installations.

In addition, the Commission developed the technical aspects of the CONELRAD program, including frequency assignments and power limitation regulations, and is supervising installation of telephone lines and other special equipment.

## FEDERAL SECURITY AGENCY

This agency is working on final negotiations to determine delegation of FCDA emergency authority proper to such fields as: financial assistance to needy persons for emergency welfare and other appropriate services; meeting food and drug inspection needs to protect the citizens against contamination; and detection, identification, and control of communicable diseases of humans.

Through constituent agencies, the Federal Security Agency is co-operating with FCDA and the State and territorial civil defense directors in the establishment of emergency public health and welfare planning services.

### Public Health Service

This agency provided assistance in determining medical requirements, and in reviewing plans of applicants for RFC loans for hospital construction, with respect to civil defense needs.

Assisted by FCDA, it also is incorporating biological warfare defense training into its regular courses for State and local officials.

Public Health has made available manuals on emergency fly, rodent, and mosquito control. These have been approved and recommended by FCDA for civil defense use.

It also has supplied to FCDA the results of its research and experience in such fields as communicable disease control, maternal and child health services, emergency food and drug control, and emergency public health and sanitation.

### Social Security Administration

This agency reached an interim agreement with FCDA welfare services to insure maximum use of all resources in providing emergency financial aid to persons in need.

### Office of Education

This office cooperated with FCDA in surveying civil defense educational activities in 1,659 schools and colleges. The resulting report was given wide distribution by educational groups.

The Office continues to assist FCDA in developing the civil defense training program, and acts in an advisory capacity in the preparation of civil defense material for schools.

### Food and Drug Administration

This agency selected a list of items which will be subjected to atomic test for FCDA guidance in storage and use of drugs and medicines during emergency.

It continued research to establish radioactivity field standards for food and drugs.

## GENERAL ACCOUNTING OFFICE

GAO is studying fiscal procedures in a civil defense emergency involving use of Federal funds, also pay and leave problems affecting Federal employees participating in civil defense.

## GENERAL SERVICES ADMINISTRATION

### Federal Supply Service

This office served as procurement, inspection, and testing agency in obtaining FCDA emergency engineering supplies and equipment. It also handled purchase of training, rescue, and other essential civil defense materials.

In addition, it administered construction contracts for, and assisted in the establishment of, emergency standby power at national emergency control centers, and agreed to operate Federal warehouses under FCDA supervision and provide personnel for six warehouses now in operation.

### Public Buildings Service

This office surveyed for shelter areas and set up facilities self-protection programs designed to coordinate protection plans in all Government buildings over which it has jurisdiction, both in the Washington area and in the field.

It also handled lease and contract negotiations for six warehouses and other emergency storage facilities acquired by FCDA.

## HOUSING AND HOME FINANCE AGENCY

This agency made studies and recommendations on emergency housing, post-reconstruction and rehabilitation, and use of community facilities.

It contributed to urban analysis studies for civil defense.

HHFA and FCDA appointed task forces to study emergency temporary shelter for civil defense use; emergency repair of housing; conversion of structures to acceptable emergency housing; community facilities and utilities; compensation of communities for aid rendered in an emergency; and the preattack relationship between the Federal Government, States, and localities in connection with relocation of community facilities necessitated by attack.

## DEPARTMENT OF THE INTERIOR

The Petroleum Administration for Defense is cooperating with FCDA in developing procedures for the protection of petroleum

The Department is advising FCDA on planning for the use of national parks for evacuation and mass care centers in a civil defense emergency.

The Bureau of Indian Affairs, the Office of Territories, the Alaska Railroad, and the Alaska Road Commission have cooperated with FCDA to assist the Director of Civil Defense for the Territory of Alaska in the development of an over-all civil defense program and specific emergency measures.

### DEPARTMENT OF JUSTICE

This department arranged for suitable relaxation of immigration and naturalization regulations to permit the flow of aid to and from neighboring nations in time of emergency or practice drills.

It also issued a special facility protection guide for Federal prisons. Plans to use these facilities as supplemental hospital or mass care centers are being considered.

The Justice Department is cooperating on negotiations for handling Mexican laboring groups in the United States during an emergency, either in mass movement within this country or across the border.

The department is working on plans to analyze statutory or procedural changes necessary to permit civil defense operations and proper accountability to owners of requisitioned or commandeered goods during an emergency.

### DEPARTMENT OF LABOR

This department participated in an analysis of the problem of Mexican labor within the United States as a basis for establishing emergency procedures for this group.

Department of Labor technicians made assessments of recruitment procedures, skills, and assignment of volunteer workers in a civil defense emergency. Additional studies to guide the development of priorities for possible mass relocation of labor in an emergency are under way.

This agency contributed the results of its experience and consulted with FCDA on the following problems relating to civil defense volunteers: training and education, proper safeguards, maintenance of income, and compensation for death or injury. It also provided statistical data, including industrial labor loads for reassignment, and figures on female occupational skills for replacement in the event of major loss in the labor force during a civil defense emergency.

## NATIONAL SECURITY RESOURCES BOARD

NSRB has continued planning for permanent restoration and rehabilitation of the national economy after enemy attack, and has provided assistance to FCDA in its planning for emergency restoration and rehabilitation.

It also established seven task forces composed of representatives of appropriate Government agencies, with FCDA membership on each. Task forces began studies on housing, transportation, health, banking, and other problems affecting the national economy in pre-emergency, emergency and postemergency periods.

## OFFICE OF DEFENSE MOBILIZATION

ODM is directing a working group of representatives of DTA, DATA, NSA, DPA, DOD and FCDA, which recommended interim operating procedures for the Nation-wide emergency transportation structure pending establishment of a complete plan. The group also recommended establishment of a national emergency transportation control center in a secure location.

The office also is coordinating the activities of FCDA, Department of Defense and the American National Red Cross in the National Blood Program to meet the Nation's present and stockpiling requirements for blood and blood derivatives.

ODM staff members are working with FCDA on solutions to problems such as: self-protection plans for industrial facilities; protective construction within industry in general; policy control and operation of the industrial dispersion program and proper application of tax amortization; damage reporting and assessment for restoration of the industrial complex; and community facilities phases of industry-government post-attack production plans.

## DEFENSE PRODUCTION AUTHORITY

DPA completed plans for recommending protective construction as a criterion for the issuance of certificates of necessity for tax amortization and Federal loans.

This agency also assisted FCDA in determining priority allocation of critical materials used in engineering stockpile items.

## RECONSTRUCTION FINANCE CORPORATION

RFC approved several applications and is processing other loans totaling \$18,385,000 for construction of hospitals which will have civil defense use in an emergency.

## DEPARTMENT OF STATE

The Department provided means for continuing civil defense cooperation with other friendly nations on such matters as mutual aid and mobile support pacts, uniform training techniques, and evacuation agreements with Canada.

## TREASURY DEPARTMENT

The Department is cooperating on plans for harbor operations, protective measures, and assistance to local civil defense groups in developing their harbor organizations and training programs.

Treasury participated in preliminary discussions relative to suspension of customs clearance at the United States-Canadian border to facilitate movement of civil defense forces.

It also is developing procedures to provide operating funds to FCDA in a civil defense emergency, to assure continuation of public cash and credit operations, and to safeguard records of Federal employees, pensioners and others.

Negotiations have been conducted leading to issuance of regulations allowing tax exemptions on money spent by industry for civil defense construction or installations.

## VETERANS ADMINISTRATION

This agency is making plans to incorporate protective construction recommended by FCDA in certain Veterans Administration hospitals being built in critical target areas.

It also is participating in plans for mobile support of civil defense casualty services, and is planning radiological defense training for selected Veterans Administration personnel.

It has issued a comprehensive manual, now being reviewed by FCDA for reissue with current data, to guide its field establishment in the conduct of civil defense planning and emergency activity.

## AMERICAN NATIONAL RED CROSS

As a quasi-government agency, the Red Cross continues to cooperate in many areas of civil defense. For example:

The Red Cross has agreed to expand its canteen service training program to include civil defense emergency feeding for workers.

It has trained over a million persons in first aid, a quarter of a million in home nursing, and approximately 5,000 volunteer nurse's aides.

In addition, it has participated as equal partner with FCDA and the Department of Defense in the National Blood Program, and is serving as the official collecting agency

## CIVIL DEFENSE IN OUR FUTURE NATIONAL SECURITY

Make no mistake about it, America's civil defense is not developing fast enough to meet the threat that now faces us. Here are the reasons why:

1. The enemy's ability to launch devastating attacks on America with weapons of mass destruction is growing.

2. The destructive effects of the enemy's weapons are being increased much faster than our means of defense against them.

3. The current capabilities of our sea and air defenses simply cannot prevent, by any stretch of the imagination, a mass penetration of those defenses by enemy bombers, submarines or guided missiles.

4. Today 100 bombers can carry as much destruction in their bomb bays in one flight as was carried by the entire bombing effort of the British and United States Air Forces throughout all of World War II.

5. The United States Air Force has reported that the Soviet Union has produced five times as many planes as the United States during the last 5 years.

6. Russian attack capabilities in terms of long-range submarines and guided missiles are known to be on the increase. Atomic attacks can be launched against American cities by these means as well as by enemy aircraft.

7. Congressional and military support for the building of our civil defense program has been far less than was originally required to meet the enemy threat that existed 2 years ago, let alone the increased threat today.

These are the grim realities which demand far greater progress in homefront preparedness. In effect, we are making progress in civil defense but are losing ground in the face of the growing threat.

Civil defense must be seen clearly as a true copartner with the military in the defense of the Nation. Our military defenses can be and are being improved but, contrary to much wishful thinking, our military defenses will never be able to stop a mass enemy air attack once it is launched.

The vulnerability of our people and industry can and must be reduced, just as our military defenses must be improved to the maximum.

These measures, which would help make the civil defense job more manageable, cannot possibly minimize the importance of civil defense if the American homefront expects to recover rapidly from attack.

Today's problems of national security, particularly as they relate to civil defense, demand immediate, courageous decisions and actions by the Congress and by our security leaders.

Here are some of the basic requirements essential to an effective civil defense:

1. Leadership in civil defense at all levels of government must be made more real and more effective. Such leadership is the grave responsibility of all government officials, Federal, State, and local.

2. Civil defense must be given more aggressive, intelligent, whole-hearted official support in day-to-day cooperation and participation. Civil defense also must receive adequate national investment. The token support to date gives false hope and false promise of adequate protection to the American public.

3. The civil defense job must be made more manageable by continued improvements in the sea and air defenses of the North American Continent, in order to ensure the advantages of earlier warning and to reduce the weight of successful attacks.

4. The vulnerability of our target cities must be reduced through a practical, step-by-step, dispersal program for industry and a realistic protective shelter program for the people in our highly congested industrial areas.

5. There must be fuller recognition that the spiritual unity of civil defense is an important factor in the survival of our American way of life. We must have a rebirth of individual self-reliance and national neighborliness on the part of America's men, women, and children.

6. The release of information essential to public safety and real national security must take precedence over other considerations. Civilian self-reliance can be aroused only by full knowledge of the facts and the dangers we face. National and public preparedness cannot be achieved under the faint-hearted concept that the people should be told as little as possible because the truth might disturb them, or because prompt release of the full facts might aid the enemy in some vague manner.

The safety of the Republic is everybody's business, not merely that of a few. The truth has made us a free Nation. Only when the people are told the full truth about the dangers we face, will they be able to act to keep us free.

## **CIVIL DEFENSE ABROAD**

During World War II, civilians in many countries suffered from invasion and from intensive bombing with high explosives and incendiaries. The resulting toll behind the front lines and the dislocations in everyday life brought sharp awareness to these people of the need for civil defense. This need has been highly intensified by the development of atomic weapons and other special weapons such as chemical and biological warfare. Also, many European nations lie adjacent to the Iron Curtain. Since modern warfare aims at the destruction of heavily populated areas and of production centers, it has become clear that civilians as well as the military must be capable of self-defense.

Great Britain and the Scandinavian nations, among the countries abroad, have made significant strides in the organization of civil defense. The North Atlantic Treaty Organization is taking steps to encourage its member countries to develop strong civil defense organizations. NATO already has established a working group to develop plans, training, and organization for civil defense on an allied basis, although it is generally conceded that most civil defense problems fall within the sovereignty of its separate member states.

Canadian civil defense follows a pattern almost identical to that of the United States. The link between the United States and Canada has been greatly reinforced by the adoption of joint plans for mutual aid and mobile support. Several of our individual States also have reached informal understandings with neighboring Canadian provinces for the extension of mutual aid across the border in an emergency. The Canadian government budgeted a total of \$7,500,000 for 1952. It has begun a \$2,250,000 program to stockpile medical and other scarce supplies. Together, the United States and Canada are preparing to operate in case of war as though no frontier existed between the two countries.

In general, the nations that are potential targets of enemy attack are striving to form a strong international chain of civil defense to shackle the threat of aggression against the free world.

### **GREAT BRITAIN**

The British Civil Defence Act of 1948 places civil defense under the Home Secretary but also assigns special civil defense functions to other ministries. For example, the Ministry of Health is responsible

for hospital, first-aid, and ambulance services; the Ministry of Housing is in charge of evacuation, rehousing and repair of damaged homes; and the Ministry of Food is responsible for mass emergency feeding. The Civil Defence Joint Planning Staff coordinates all planning and research for civil defense. England is divided into 10 regions, each headed by a Principal Officer responsible for coordinating and supervising civil defense in his region.

England expects to train 500,000 volunteers in peacetime and to recruit 16,000,000 in time of war. By late 1952, some 250,000 men and women were enrolled in British civil defense forces, consisting of local divisions and mobile columns.

The British have a civil defense staff college and 3 civil defense training schools. The administrative and tactical aspects of rescue, fire fighting, engineering, health, welfare, and other services are taught in these schools. The Ministry of Food has maintained much of its wartime administrative machinery and this is being put to use in the emergency feeding scheme. Cooking depots, mobile canteens, water tankers, and store vans created during the blitz period of the last war are ready to operate in any new crisis. Under the war food plan 6,000,000 emergency meals of the hot drink and snack or stew variety can be provided.

Shelter construction of a type resistant to atomic bombing—except for a direct hit—is well under way. An excellent air-raid warning system is now functioning and a plan is in effect for the evacuation of persons not essential to the war effort. Wherever necessary, civil defense control centers have been set up. These are provided with emergency generators, spare motors for air and gas filtration, communications and other equipment. The importance of civil defense in industrial and commercial premises also has been recognized and a course set up for industrial and commercial civil defense units. New methods of detecting and dealing with liquid war gases, relying on the use of a differential detector powder, have been introduced.

Great Britain has issued many pamphlets, training manuals, and film strips for civil defense education. There also has been considerable exchange of students between the British and American civil defense staff colleges.

## SWEDEN

During 1952, Swedish civil defense operated on a budget of \$20 million, more than one-third higher than that of 1951. One out of every 7 persons in Sweden is trained for and has served in civil defense. The population may be conscripted for civil defense, but it has not been necessary to exercise this power, since almost 1,000,000 out of a population of 7,000,000 have volunteered.

The Swedish civil defense organization has been in existence without interruption since 1938. The Civil Defense Office is under the Department of Interior and extends down through the 25 provinces or counties. Sweden maintains a central civil defense school and 25 provincial schools. At the age of fourteen, each student in the school system participates in civil defense training.

Underground civil defense control centers have been provided throughout the Nation. These are outfitted with air-conditioning, anti-gas filters, decontamination chambers, auxiliary power generators, and an extensive communications system. Many spacious, well constructed, underground shelters have been established for the general population. The entire cost of such shelters is borne by the national government. By law, all large buildings and factories also must have shelters.

Although the Swedes are not members of the North Atlantic Treaty Organization and hew to a policy of neutrality, they have built strong defenses in anticipation of atomic warfare and have developed a program for establishment underground of industries, barracks, hospitals, and civil defense control centers. Since the end of World War II, 16,000 air-raid shelters have been built for civilian protection, and underground facilities for 1,000,000 persons are being constructed every year. The Swedish government has budgeted \$100 million for construction of civilian shelters during the next 10-year period.

Plans for the evacuation of all nonessential personnel are ready and dovetail with plans in reception zones where they will be received. Evacuation of the central government and major municipal governments will go into effect the moment the Nation is attacked. All fire-fighting equipment and personnel are subject to civil defense orders in case of attack. The Swedish government recently enlarged and modernized a civil defense manual, originally issued during the last war. Called "If War Should Come", this booklet tells the Nation's populace what to do in event of war. A total of 2,800,000 copies are being distributed.

Every able-bodied Swede between the ages of 16 and 65 is required to take on a civil defense function and must devote 60 hours per year to special civil defense training. Sweden's civil defense organization is considered among the best on the continent.

## NORWAY

The Norwegian Civil Defense Organization operates under the equivalent of the Justice Department. Its plan calls for 60,000 local wardens and training of 40,000 industrial defense forces. A strong mobile support system has been built up. These mobile reserves can,

on short notice, be rushed wherever they are most needed. Mobile teams include fire battalions, medical, rescue, demolition, decontamination, patrol, and feeding units.

By the end of 1952, Norway will have spent about \$5 million for command and alarm stations, depots and mobile support centers; approximately \$7 million for shelters; and \$5 million for other equipment. An additional \$2 million has been requested to strengthen mobile support columns, which the Norwegians call "flying squadrons." The mobile support columns in the Oslo area now consist of 10,000 fully trained and equipped forces.

Shelter areas, alarm, and command centers for large cities will be dynamited into the rock hills. Local groups must provide air-raided shelters to accommodate 20 percent of the population. Shelters built by the respective municipalities also will be blasted into the mountains with the central government paying two-thirds of the estimated total costs. All new construction must include shelter areas and every factory employing more than 50 workers must provide a tunnel or basement shelter. In case war threatens, provisions have been made to evacuate from the larger cities about 45 percent of the people, particularly mothers with infants, other children up to 14, some teachers, pregnant women, men and women over 70, and sick people together with some physicians and nurses.

For protection against after effects of atomic bombing, cities will be provided with stationery instruments which register radioactive radiation. Crews working in a radioactive area will carry dosimeters to show when radiation reaches the danger point.

## DENMARK

Operating under the Interior or Home Office, Denmark's civil defense corps now consists of 100,000 people, with a goal of 600,000. Each year 1,200 men are given 10 months' training in civil defense and these trainees form the nucleus of Denmark's volunteer corps. The Danish budget for civil defense envisages an expenditure of approximately 40 million dollars, of which more than half already has been appropriated for shelters and organizational equipment. The Danes have constructed some 5,000 shelters for the protection of about 250,000 persons. The shelters are of new design, built of concrete and covered with 3 feet of soil. They afford protection against atomic radiation and blast within a few thousand feet from a direct hit.

## THE NETHERLANDS

The Netherlands has stepped up its civil defense budget from \$6½ million last year to \$22,400,000 for 1952. A new association, called

"The Foundation for the Protection of the Civilian Population," has been formed and the new program calls for a minimum of 200,000 volunteers. Of this force, 37,000 will operate full time during an emergency, 90,000 will work on a part-time basis, serving 12 days a month, and the remainder will be trained as a reserve force to be drawn on when the need arises.

Civil defense in Holland is under the Dutch home office. The central government is in charge of mutual assistance all over the country and controls the use of mobile columns. These are stationed near important centers and may be sent at any time to assist stricken areas.

Civil defense also operates on a local basis. All Dutch cities have been divided into two groups: In the first category, those cities considered critical targets because of strategical position or industrial capacity; in the second, all remaining municipalities—those that may expect only minor or accidental bombings. The recently strengthened civil defense organization in Holland, which was shattered by invasion during the Nazi regime, is considered a major step toward prevention of another war.

## GERMANY

The West German Government has completed a new civil defense law which patterns the civil defense organization of England and the United States.

The plan calls for installation of air-raid warning devices and construction of shelters designed for protection against atom bombing. The National Civil Defense Society has issued manuals to instruct the populace on what to do in case of the outbreak of war. The Society has proposed that all new homes and other buildings incorporate bomb shelters at least 150 inches thick on top and 91.25 inches thick on the sides. The huge concrete public air raid shelters constructed by the Germans during World War II are now considered outdated. Construction of new shelters is scheduled to start next spring. The Ministry of the Interior for West Germany has set aside \$142,800 to finance these plans.

## FRANCE

In France a civil defense plan calling for a budget of 67 billion francs over a 2½-year period is ready but the funds have not yet been appropriated. Evacuation and reception of nonessential persons, dispersal of factories, protection against fire, and other measures designed to reduce the number of victims and damage caused by war and to give maximum protection for civilians have been studied. The program contemplates construction of concrete shelters in the most

critical areas, installation of an air-raid warning system and civil protection against the effects of gas and radioactivity. A radar network that spreads from the English channel to Switzerland is in operation.

Responsibility for most of these measures will devolve on the Minister of the Interior, although other ministries such as that of Public Health will undertake certain civil defense functions.

## GREECE

In Greece, participation in civil defense is compulsory for men between the ages of 35 and 55 and for all unmarried women from 21 to 40. Greek civil defense officials have attended the civil defense courses in England and are now training thousands of people at home. Emphasis has been placed on organizing ground observers, fire fighters, food emergency units, air raid wardens, auxiliary nurses, and first-aid personnel. Lectures are given in schools, factories, and public buildings to inform the public on what to do. Pamphlets on civil defense also have been issued and a new monthly magazine dealing with problems of civil defense is about to start publication.

## RUSSIA

Evidence is available that the U. S. S. R. has continued to place strong emphasis on its civil defense efforts. All voluntary training activities recently were merged under central control with a new title of "DOSAF," which means, "Voluntary Society for the Aid of the Army, Air Force, and Navy." This intensification of the civil defense program is expected to reach every village and every machine tractor station in the Soviet Union.

Since the 1920's Russia has been decentralizing its industrial set-up and developing its industry in the East. Industrial dispersion admittedly is a move to improve Russia's strategic position. There is every indication that Russia has increased these tactics in accordance with civil defense planning. It is almost certain that strong measures will be taken to protect Moscow. The large subterranean vaults of the Moscow subway could serve as an excellent shelter system. Construction of all new homes in Stalingrad must include provision for shelters and concrete shelters also have been installed in other areas.

The Russian equivalent of the Ground Observer Corps in this country has recently been increased to more than 1,000,000 members. Russia has long recognized the importance of civil defense and since 1947 has been training workers at a rate of about 5,000,000 a year. Total Russian civil defense forces are estimated at more than 22,000,000.

## COOPERATION WITH FOREIGN COUNTRIES

During the past year, FCDA has extended its cooperation with other Nations, notably with Canada. Informal arrangements for the exchange of information and experience were established with several European Nations to provide FCDA with reports and technical analyses of World War II experience.

### CANADA

Civil defense cooperation between the United States and Canada went rapidly forward during the past year. Plans for mutual aid and mobile support were adopted. Exercises were conducted on both sides of the border to test joint preparations for dealing with disaster.

The Joint Committee on Civil Defense, established in 1951, held two meetings in Ottawa in April 1952, dealing with emergency welfare and other mutual problems. A third meeting of the Executive Secretariat in Washington in June reviewed the progress of the Committee's working groups.

Washington State and British Columbia were among the first local groups to agree on a mutual operational plan, including a uniform warning system. They also developed and tested a civil defense network of amateur radio stations to be extended to Alberta, Oregon, Montana, and Idaho.

Plans for mutual aid between New York State and the Provinces of Ontario and Quebec were discussed in January at a conference in New York, and text exercises were held at Niagara Falls and Buffalo, involving United States and Canadian ambulances and fire-fighting equipment.

In June, civil defense officials of Minnesota, North Dakota, and Manitoba met in International Falls, Minn., to make plans for mutual aid in case of attack.

A similar conference took place in Montreal to arrange for cooperation between New York, New Hampshire, Maine, Vermont, New Brunswick, Quebec, and Ontario. Another conference held in Boston for further discussion of these plans, was attended by representatives of these States and Provinces, plus Michigan, New Jersey, and the remaining New England States.

A notable example of United States-Canadian cooperation was the "Niagara Agreement," which went into effect in July. It was the first international agreement among newspaper and radio station owners and civil defense authorities to pool information media between the two Nations on a regional basis in case of attack.

The agreement was described by the Director of the New York State Civil Defense Commission as "probably the most unusual move ever made by combined press and radio installations on an international basis to help their reading and listening public in time of an enemy attack, and to aid in dispelling panic."

### **BELGIUM**

Representatives from Belgium visited FCDA in December to make a study of the civil defense program in the United States. They were particularly interested in civil defense techniques, health measures, and radiological decontamination.

### **DENMARK**

FCDA has established informal liaison with the Civil Defense Director of Denmark and has received information on Danish civil defense plans, including plans for the construction of air-raid shelters.

### **FRANCE**

In July, the Deputy Director of Civil Defense of France visited FCDA to study the civil defense program in this country. During the year, FCDA furnished information on fire fighting requested by the French civil defense organization and in turn received information on French civil defense plans and studies on protection by dispersion, evacuees and refugees, urban analysis, and fire protection.

### **GERMANY**

During the year, a German Mission consulted FCDA on civil defense plans. The West German Government had previously taken steps to build up a civil defense organization and had made plans for air-raid warning devices and shelters.

### **MEXICO**

In July, the Civil Defense Director of Arizona was authorized to enter into discussions with officials of the Mexican State of Sonora regarding actions to be taken for the repatriation of Mexican citizens in the event of a civil defense emergency.

## GREAT BRITAIN

Extensive exchange of civil defense information and materials continues between FCDA and the British Home Office. Publications, films, and materials are being exchanged. This exchange includes studies on the effectiveness of training methods, civil defense organization, health and welfare.

Representatives of FCDA have consulted British civil defense authorities in London, and arrangements have been made for British civil defense workers to make similar visits to the United States.

The Director of Emergency Feeding, British Ministry of Food, made a tour of more than a score of cities in the United States, speaking before civil defense organizations and other interested groups.

Two members of the British Women's Volunteer Services visited the FCDA National Civil Defense Training Center in November and delivered a series of lectures in Massachusetts and New York.

## SWEDEN

Through the Swedish Embassy, FCDA has been provided with Swedish civil defense publications—including a handbook, "If War Comes," which has been distributed to every household in Sweden.

## OTHER COUNTRIES

FCDA also has exchanged information with other countries including Switzerland, South Africa, Spain, India, Pakistan, Cuba, and the Philippines.

## COOPERATION WITH NATO NATIONS

Cooperation of the Federal Civil Defense Administration with west European Nations during the past year included the exchange of staff studies and public informational materials with members of the North Atlantic Treaty Organization.

This cooperation was initiated by the Department of State in June in response to a request from NATO, which had appointed a special working group to study civil defense organization. Reports on the civil defense programs of the NATO members have been received for study by FCDA.

The FCDA Administrator will be the U. S. delegate to the first meeting of the NATO Civil Defense Committee, to be held early in 1953.

## **FCDA ADVISORY COMMITTEES**

Since its inception, the FCDA has constantly made use of the advice and guidance of specialists and experts in all of the complex fields which are essential elements of the national civil defense program. This is part of a continuing program to assure maximum use of all of America's skills and experience in solving the many critical civil defense problems.

This advice and assistance is provided generally on a public service basis by hundreds of representatives of labor, industry, professions, schools, State and local governments, and other organizations. These committees provide specialized assistance in virtually all of the program areas either on an interim or permanent basis and are supplemented by intra-governmental committees.

The major committee is the National Civil Defense Advisory Council established in Public Law 920 to "advise and consult with the Administrator with respect to general or basic policy matters related to Civil Defense." This Council consists of the Administrator as Chairman and 12 members appointed by the President. Six members represent State and local governments and the remainder are citizens selected on the basis of their broad and varied experience in matters affecting the public interest.

The present membership of the National Civil Defense Advisory Council is as follows:

- Honorable Frank Lausche, Governor of Ohio.
- Honorable Val Peterson, Governor of Nebraska.
- Honorable Martin H. Kennelly, Mayor of Chicago.
- Honorable David L. Lawrence, Mayor of Pittsburgh.
- Honorable Elmer E. Robinson, Mayor of San Francisco.
- Dr. Lillian M. Gilbreth, Montclair, New Jersey.
- Dr. Margaret Just Butcher, Washington, D. C.
- Mr. Harry Darby, Kansas City, Kansas.
- Mr. Silliman Evans, Nashville, Tennessee.
- Mr. George J. Richardson, Washington, D. C.
- Mr. Robert L. Smith, Los Angeles, California.

In addition to the National Advisory Council, FCDA now has some 50 general and technical advisory committees and panels of which some 20 were established in 1952.

Among the general advisory committees established in 1952 were veterans, labor, industry, welfare, national magazine, etc. There are other major policy, program, and technical committees now in the process of being formed to aid in the development of the civil defense program. These groups are in addition to those major agency committees and panels established during 1952. Information on their activities are contained throughout the 1951 FCDA Annual Report.

### **Veterans Advisory Committee**

Early in the Fall of 1952, representatives of all major National Veterans organizations, meeting at the request of the Administrator, recommended the formation of a Veterans Advisory Committee.

This committee, representative of all the major National Veterans organizations, was established October 1952. It was instrumental in obtaining major assistance and participation from the veteran groups throughout the country in FCDA's "Pledge for Home Defense" campaign during November 1952.

### **Labor Advisory Committee**

The Labor Advisory Committee was established in April 1952, at the request of labor representatives who attended preliminary meetings with the Administrator. Its membership represents five major union organizations.

During 1952, a number of major policy recommendations were made by the Committee to the Administrator and transmitted to the State and local civil defense authorities. They included the following:

"1. That all State and local civil defense agencies invite participation by labor organizations in all phases of civil defense;

"2. That all State and local civil defense agencies provide for labor representation at the policy level as well as the operational level; and

"3. That all international and national unions assist the Federal Civil Defense Administration in the dissemination of educational material and information pertaining to civil defense and urge their members to participate in those civil defense services for which they are best qualified.

"4. The Act which authorizes the Federal Civil Defense Administration requires an oath of loyalty from all participants in civil defense. The FCDA Labor Advisory Committee sees no reason why union members should not comply as to other citizens in the civil defense program. Therefore, the Labor Advisory Committee recommends that members of labor unions take the oath prescribed in Sec. 403 (b) of Title IV of the FCDA Act of 1950, limiting such endorse-

ment, however, to the specific language of the model oath there set forth."

### **Industry Advisory Committee**

At the request of the Administrator, a number of leading business and industrial executives, representing both private firms and trade associations, have accepted membership in the Administrator's National Industry Advisory Committee which will be formally organized early in 1953.

### **Emergency Welfare Services Advisory Committee**

The National Emergency Welfare Services Advisory Committee, established in the early part of 1952, is composed of representatives from nine countrywide welfare organizations. The Committee has reviewed and endorsed the FCDA's proposed registration and information program to meet the emergency needs of victims in case of attack or other national emergencies.

The Committee will assist the FCDA in integrating established governmental welfare programs and those of private welfare organizations and their affiliates in the over-all civil defense welfare program.

### **National Magazine Advisory Committee**

Following a series of preliminary meetings with magazine publishers and executives, the National Magazine Advisory Committee was established at the request of the industry representatives at a meeting in New York City late in 1952, to assist FCDA in expanding its program to get the civil defense story before the magazine readers of the Nation.

*Immediate Release.*

*April 18, 1952.*

EXECUTIVE ORDER 10346

[Preparation by Federal agencies of civil defense emergency plans]

By virtue of the authority vested in me by the Federal Civil Defense Act of 1950, approved January 12, 1951 (Public Law 920, 81st Cong.), and as President of the United States and Commander in Chief of the armed forces of the United States, it is hereby ordered as follows:

SECTION 1. In furtherance of national planning for the utilization of the personnel, materials, facilities, and services of the Federal departments and agencies which will be required in the event of a civil-defense emergency, each Federal department and agency shall, in consultation with the Federal Civil Defense Administration, prepare plans for providing its personnel, materials, facilities, and services pursuant to the provisions of section 302 of the said Federal Civil Defense Act during the existence of a civil-defense emergency. The plans of each department and agency shall take into consideration the essential military requirements of the Department of Defense with respect to such department or agency.

SEC. 2. In addition to the plans required by section 1 hereof, each Federal department and agency shall prepare plans for maintaining the continuity of its essential functions at the seat of Government and elsewhere during the existence of a civil-defense emergency. The personnel, materials, and facilities required for this purpose shall be exclusive of the personnel, materials, and facilities required for the execution of the plans prepared pursuant to section 1 of this order. In the preparation of the continuity plans required by this section, each department and agency shall consult with the Federal Civil Defense Administration with respect to the civil-defense aspects of its functions. In order to achieve uniformity of planning for the continuity of essential functions, the National Security Resources Board shall establish such standards and policies as it may from time to time deem desirable. That portion of the continuity plans of a department or agency which involves its functions at the seat of Government shall become effective upon approval by the President, and that portion, if any, which involves functions performed elsewhere shall become effective upon approval by the head of the department or agency concerned.

SEC. 3. The Federal Civil Defense Administrator shall assist the departments and agencies by indicating the types of personnel, materials, facilities, and services considered useful for civil-defense purposes in time of emergency; arrange for the use of such personnel, materials, facilities, and services as are not required for maintaining the continuity of the essential functions of the departments and agencies; and coordinate such arrangements with national, State, and local civil-defense plans.

HARRY S. TRUMAN.

THE WHITE HOUSE,  
April 17, 1952.

## PUBLIC EDUCATION AND TRAINING MATERIALS PRODUCED BY FCDA

### Administrative Guides

*United States Civil Defense*, 1950, 25 cents, 168 pp. The national plan for organizing the civil defense of the United States.

*Civil Defense in Industry and Institutions*, Pub. AG-16-1, 1951, 25 cents, 64 pp. Plans for organizing and administering civil defense self-protection programs for the Nation's industrial plants, office and apartment buildings, and other institutions.

*The Clergy in Civil Defense*, Pub. AG-25-1, 1951, 10 cents, 12 pp. Guide for the clergy of all faiths for determining their duties and functions in civil defense.

*Emergency Welfare Services*, Pub. AG-12-1, 1952, 20 cents, 62 pp. Guide for developing a program to meet the multiple welfare problems that would arise from enemy attack.

*Engineering Services*, Pub. AG-13-1, 1952, 15 cents, 25 pp. Assists State and local civil defense directors in planning and establishing their engineering services.

*Fire Services*, Pub. AG-9-1, 1951, 15 cents, 27 pp. Basic guide to assist States and communities in planning, organizing, staffing, and operating an expanded fire-fighting service during periods of war emergency.

*Health Services and Special Weapons Defense*, Pub. AG-11-1, 1950, 60 cents, 264 pp. Methods for organization of all basic health and special weapons defense (atomic, biological, and chemical warfare) for State and local civil defense programs.

*Police Services*, Pub. AG-10-1, 1951, 20 cents, 50 pp. Basic guide for State and local civil defense officials in organizing and directing police civil defense services.

*Principles of Civil Defense Operations*, Pub. AG-8-1, 1951, 20 cents, 48 pp. Basic guide in planning and organizing for mutual aid and mobile support operations.

*The Rescue Service*, Pub. AG-14-1, 1951, 15 cents, 32 pp. Basic guide for State and local civil defense officials in organizing rescue services and training rescue teams.

*The Supply Service*, Pub. AG-6-1, 1952, 20 cents, 50 pp. Assists State and local civil defense directors and supply officials in establishing adequate supply programs.

*The Warden Service*, Pub. AG-7-1, 1951, 20 cents, 48 pp. Basic guide for civil defense directors and supervisory wardens in selecting, organizing, training, and equipping the warden service.

## Public Booklets

*Duck and Cover*, Pub. PA-6, 1951, 5 cents, 14 pp. Cartoon instruction for children on what to do in case of atomic attack.

*Emergency Action to Save Lives*, Pub. PA-5, 1951, 5 cents, 32 pp. Practical instructions for the untrained person on the emergency care of injured people.

*Fire Fighting for Householders*, Pub. PA-4, 1951, 5 cents, 32 pp. Basic information for the householder on how fires start, how they can be prevented, and how to fight fires.

*This Is Civil Defense*, Pub. PA-3, 1951, 10 cents, 32 pp. Highlights of the national civil defense program and the part the volunteer must play to make civil defense a success.

*What You Should Know about Biological Warfare*, Pub. PA-2, 1951, 10 cents, 32 pp. Techniques of personal survival under biological warfare attacks.

*Survival under Atomic Attack*, 1950, 10 cents, 32 pp. Techniques of personal survival under atomic bomb attacks.

## Technical Manuals

*Blood and Blood Derivatives Program*, Pub. TM-11-5, 1952, 40 cents, 179 pp. Describes Federal, State, and local organization and operation of a civil defense blood program.

*Civil Defense in Schools*, Pub. TM-16-1, 1952, 15 cents, 29 pp. A guide and reference for local superintendents of schools in organizing and operating programs for the self-protection of schools, their physical facilities, staff, and students.

*Fire Effects of Bombing Attacks*, Pub. TM-9-2, 1952, 15 cents, 48 pp. Summarizes data on World War II bombing attacks and suggests a method of appraising fire susceptibility of cities to minimize the effects of mass fires.

*Interim Guide for the Design of Buildings Exposed to Atomic Blast*, Pub. TM-5-3, 1952, 15 cents, 34 pp. Suggests to architects and engineers methods of increasing the strength of new buildings to resist atomic blast, and points out hazards which should be considered in the design of shelter areas in buildings.

*Organization and Operation of Civil Defense Casualty Services*, Part I—*The First-Aid System*, Pub. TM-11-1, 1953, 20 cents, 54 pp. Recommends general principles designed to assist key civil defense professional medical personnel in planning and operating a first-aid system.

*Organization and Operation of Civil Defense Casualty Services, Part III—Medical Records for Casualties*, Pub. TM-11-3, 1951, 15 cents, 30 pp. Recommends medical records and forms for uniform use by all States in the handling of casualties resulting from enemy attack.

*Outdoor Warning Device Systems*, Pub. TM-4-1, 1951, 15 cents, 36 pp. Data for planning, procuring, and installing public warning device systems for civil defense.

*Radiological Decontamination in Civil Defense*, Pub. TM-11-6, 1952, 15 cents, 31 pp. Provides information for all radiological defense personnel and serves as an operations manual for decontamination crews.

*Shelter From Atomic Attack in Existing Buildings, Part I—Method for Determining Shelter Needs and Shelter Areas*, Pub. TM-5-1, 1952, 20 cents, 53 pp. Instructions, forms, and recommendations for use of civil defense directors, survey teams and their supervisors, and technically qualified personnel in conducting a shelter survey.

*Shelter From Atomic Attack in Existing Buildings, Part II—Improvement of Shelter Areas*, Pub. TM-5-2, 1952, 15 Cents, 26 pp. Offers suggestions to architects and engineers for improving shelter areas.

*The Nurse in Civil Defense*, Pub. TM-11-7, 1952, 20 cents, 52 pp. Assists key civil defense nurses in planning and operating State and local nursing services.

*Water Supplies for Wartime Fire Fighting*, Pub. TM-9-1, 1951, 10 cents, 16 pp. Program for increasing available water supplies to meet the needs of emergency water-supply operations during wartime.

*Windowless Structures—A Study in Blast-Resistant Design*, Pub. TM-5-4, 1952, \$1.00, 165 pp. Describes methods and procedures for designing windowless structures or windowless portions of conventional structures, based on the dynamic properties of loading; presents principles, methods, and formulas for determining the magnitude, duration, and distribution of atomic blast loads on windowless structures.

## Technical Bulletins

*Construction and Adaptation of Structures for Rescue Training*, Pub. TB-14-1, 1952, 5 cents, 4 pp. Describes new facilities for rescue training programs and presents criteria for adapting existing structures for such training.

*Development Status of Personal Dosimeters*, Pub. TB-11-4, 1952, 5 cents, 4 pp. Describes availability of personal dosimeters and results of tests conducted by the National Bureau of Standards on two types.

*Emergency Blood Grouping Laboratory Techniques*, Pub. TB-11-6, 1952, 5 cents, 4 pp. Presents to physicians and blood bank technicians detailed laboratory methods for the determination of blood groups and Rh types in civil defense emergencies.

*Emergency Blood Transfusion*, Pub. TB-11-5, 1952, 5 cents, 5 pp. Recommends to physicians and blood bank technicians the minimal procedures for blood transfusions during civil defense emergencies.

*Emergency Exposures to Nuclear Radiation*, Pub. TB-11-1, 1952, 5 cents, 1 p. Data on permissible limits of exposure of civil defense workers to nuclear radiation during training activities and emergency operations.

*Emergency Measurement of Radioactivity in Food and Water*, Pub. TB-11-9, 1952, 5 cents, 2 pp. Describes to civil defense radiological and health officials a method for rapidly measuring radioactivity in food and water to be consumed in the period immediately following an atomic explosion.

*Engineering Equipment Stockpiled for Emergency Water Supply Use*, Pub. TB-13-1, 1952, 5 cents, 4 pp. Describes the types of engineering equipment and material which FCDA is currently stockpiling for civil defense use in emergency water supply systems.

*Permissible Emergency Levels of Radioactivity in Water and Food*, Pub. TB-11-8, 1952, 5 cents, 1 p. Presents information for civil defense radiological and health officials on permissible emergency levels of radioactivity in water and food to be consumed in the period immediately following an atomic explosion.

*Personal Dosimeters for Radiological Defense*, Pub. TB-11-2, 1952, 5 cents, 3 pp. Presents general factors to consider in deciding whether personal dosimeters are necessary in State and local civil defense programs.

*The Most Promising Personal Dosimeters for Civil Defense Use*, Pub. TB-11-3, 1952, 5 cents, 4 pp. Discusses personal dosimeters generally and points out advantages and disadvantages of most promising current types for civil defense use.

## Special Publications

*Air-Raid Alert Card*, \$1.50 per 100 copies. Instruction card on what to do in case of an atomic bomb attack.

*Annotated Civil Defense Bibliography for Teachers*, Pub. TEB-3-2, 1951, 20 cents, 28 pp. Aid for teachers in locating publications for use in civil defense planning and instruction in schools.

*Annual Report for 1951, 1952*, 30 cents, 108 pp. Comprehensive report to the President and Congress on the FCDA program during 1951.

*Atomic Blast Creates Fire*, Leaflet, 1951, \$1.50 per 100 copies. Instruction to householders on how to reduce fire hazards and prevent fires in the home.

*Civil Defense and National Organizations*, 10 cents, 15 pp. Outlines the need for civil defense and informs national organizations how they can participate in the program.

*Civil Defense Household First-Aid Kit Leaflet*, 1951, \$1.50 per 100 copies. Lists first-aid items for a family of four or less; gives items to be stocked, quantity, substitutes and uses.

*Civil Defense Nursing Needs*, Pub. VM-1, 1952, 15 cents, 19 pp. Outlines programs for increasing nursing services to insure an adequate supply of nurse power in the event of attack or disaster.

*Interim Civil Defense Instructions for Schools and Colleges*, Pub. TEB-3-1, 1951, 30 cents, 32 pp. Guide for educational administrators in planning immediate civil defense training and education programs.

*National Civil Defense Conference Report*, May 1951, 45 cents, 73 pp. Transcript of the National Civil Defense Conference held in Washington, D. C., on May 7 and 8, 1951.

*The Staff College*, Brochure, 1952, 10 cents, 15 pp. Describes courses, registration procedures, and nature of facilities of FCDA Staff College at Olney, Maryland.

*The Warden's Handbook*, Pub. H-7-1, 1951, 15 cents, 34 pp. Basic reference aid for the block warden.

*Women in Civil Defense*, Pub. VM-2, 15 cents, 20 pp. Emphasizes the importance of women's participation in the civil defense program.

All of the above are on sale by the Superintendent of Documents, Washington 25, D. C.

## Training Bulletins

### School Series

No. 1. *How to Maintain a School Bulletin Board on Civil Defense*, January 1952.

No. 2. *What Teachers Should Know About Civil Defense*, March 1952.

No. 3. *Teaching Civil Defense Without Arousing Fear*, April 1952.

No. 4. *How to Use "Duck and Cover,"* May 1952.

No. 5. *Motion Pictures for Civil Defense Education*, July 1952.

No. 6. *Selected Test Items on Civil Defense*, September 1952.

### Training Officers Series

No. 1. *Determining Civil Defense Training Needs*, January 1952.

No. 2. *Setting Up Your Civil Defense Training Program*, February 1952.

No. 3. *Evaluating the Local Civil Defense Training Program*, March 1952.

No. 4. *Getting Good Instructors for Civil Defense*, April 1952.

No. 5. *Improving Civil Defense Instruction: Planning*, May 1952.

No. 6. *Improving Civil Defense Instruction: Motivation and Presentation*, June 1952.

No. 7. *Improving Civil Defense Instruction: Rehearsal and Check-Up*, July 1952.

No. 8. *Improving Civil Defense Instruction: Use of Audio-Visual Aids*, August 1952.

No. 9. *Map Making for Wardens*, October 1952.

No. 10. *Making a Block Census*, November 1952.

No. 11. *The Role of the Warden in Rescue*, December 1952.

## Motion Pictures

*Survival Under Atomic Attack*, released April 1951. This film graphically explains the danger of the atomic bomb, and what the individual should do to protect himself if caught in the open or in his home.

*Fire Fighting for Householders*, released October 1951. Since fire is the greatest destroyer and killer following any form of air attack, this necessary film describes ways and means of preventing or fighting fires in the homes.

*What You Should Know About Biological Warfare*, released October 1951. This film is concerned with the defense against enemy attack with germs or other biological weapons.

*Duck and Cover*, released January 1952. This film features *Bert the Turtle* who knows how to duck and cover in time of danger. Produced in cooperation with the National Education Association of the United States; it explains what school children should do in the event of an atomic bomb attack.

*Our Cities Must Fight*, released January 1952. Much of America's industrial strength is in her cities. The film graphically explains why production must be maintained to support the military efforts.

*Emergency Action to Save Lives*, released September 1951. This film deals with the emergency actions often needed to save lives before the arrival of trained first-aid workers or medical help. Pre-first-aid course treatments for burns, shock, bleeding, fractures and asphyxiation are covered.

The purchase price of these 10-minute films is \$19.75 for 16-mm. black and white sound prints.

*School for Survival*, released October 1952. This 20-minute film shows how communities through cooperative action can construct and operate at virtually no expense a civil defense training facility for

teaching basic techniques of fire fighting and rescue of persons from burning and blasted buildings.

## Television Films

### 4-Minute

*Take Cover* (Air-raid instructions released April 1952, purchase price \$7 per print.)

### 3-Minute

*Fire Fighting for Householdors*, released October 1951.

*This is Civil Defense*, released September 1951.

*What You Should Know About Biological Warfare*, released September 1951.

*Emergency Action to Save Lives*, released September 1951.

(Purchase price of the above is \$5.50 per print, or \$20 for a set of 4.)

### 1-Minute

*Fire Fighting for Householdors*, released October 1951.

*This is Civil Defense*, released September 1951.

*What You Should Know About Biological Warfare*, released September 1952.

*Emergency Action to Save Lives*, released September 1952.

(Purchase price is \$8 for the above set of 4.)

*Take Cover* (Air-raid instructions for those at work.)

*Take Cover* (Air-raid instructions for those at home.)

*Take Cover* (Air-raid instructions when in the open.)

*Take Cover* (Air-raid instructions for those in school.)

*Take Cover* (Air-raid instructions for those in vehicles.)

(The above set of 5 was released in April 1952. Purchase price for a set is \$10.)

## Color Film Strips

*Making a Block Map.*

*Making a Block Census.*

*The Role of the Warden in Rescue.*

## TV Kinescope Recordings

*Survival* (seven half-hour programs of civil defense instruction).

*Police Services*, a 1-hour closed circuit program.

## Radio Transcriptions

*Air-Raid Warning Instructions.*  
*Fire Fighting for Householders.*  
*Duck and Cover.*  
*Spot Announcements.*

## Leaflets

*Household First Aid Kit.*  
*Atomic Blast Creates Fire.*  
*What You Can Do Now.*

## Special Information

*Civil Defense Information Kit.*  
*Pledge for Home Defense* (Volunteer registration program).  
*The Ever Present Danger* (Magazine program).  
*The Time for Air Defense is Now* (Joint public education program with United States Air Force on air defense).

## Posters

*Alert America Color Series*, 12 posters, each in two different sizes, visualizes the need for civil defense.  
*Recruiting Series*, 10 posters in black and white urging enrollment in the civil defense services.