Because of the disturbed world situation, many people in the United States have felt that no time should be lost in adequate preparations for the passive defense of the country; however, at the national level it is only within recent months that consideration has been given, beyond mere planning, to this problem. States and local governmental jurisdictions have been ahead of the national administration in this regard.

Modern war is total in that it requires the whole effort of the nationals involved to continue its progress. The airplane has made it possible for one nation to successfully attack the civilian morale, homes and cities which lie behind the military defense of an enemy, and as a consequence the civilian has become an intimate part of the war machine of his country. Civil defense, in these modern times, must therefore take its place alongside the military defenses of the nation.

Civil Defense Objectives

The objectives of a civil defense program for a large, heavily populated industrial area can be stated as follows:

1. To save the greatest number of lives
2. To be prepared to render the greatest possible aid to the injured
3. To give the greatest possible protection to property
4. By every means at hand, to maintain the morale of the community at its highest level
5. To be prepared to go to the assistance of neighboring stricken communities

Civil defense must be integrated into and be an intimate part of the government structure. All volunteers will work under heads of existing units of government. A well-developed organization, capable of functioning in an emergency, will include: Administration, supply, recruitment and training of volunteers, public information, medical and welfare services, law and order, fire services, communications, transportation, and emergency types of engineering services, such as utilities, public works and sanitation.

Certain of these divisions, such as fire and police, will carry out their normal responsibilities, but with augmented volunteer forces; other divisions, like public health will add new duties to their normal peacetime responsibilities; still other divisions will be peculiar to a civil defense organization and will have no comparable government group already established. However, city or county employees will head these emergency divisions, and will organize them within the Civil Defense structure.

It is also basic in civil defense planning to use the services of each citizen in the place where his ability, training and willingness to serve contribute most to the total effort; thus it is logical that citizens with scientific or engineering training will be given responsibilities which naturally grow out of their peacetime work.

Civil defense in the last war meant primarily protection of one's own block from blast and fire. Too many see civil defense in an atomic war as the same parochial task, with a Geiger counter added to the bucket of sand and the gas mask. To a certain extent this will still be the case; self-help in the early stages of a disaster is still stressed; but to a much greater degree than heretofore conceived, civil defense must be an organized effort of the civilian population as a whole to keep the country as a whole a going concern.

The Scientist's Responsibility

One can readily see that the engineer and scientist has a definite and particular responsibility in civil defense. To be specific, the following requirements can be suggested for consideration at this stage of planning:

1. Trained radiation monitors become the most important individuals after a low ground or underwater atomic explosion. At first they may assess the intensity and location of the radioactive contamination by penetrating as far as possible into the affected area, and thus determine the danger areas. They will accompany the rescue missions and direct the evacuation operations. Later the radiation monitors will recommend the decontamination and rehabilitation operations of an area.

2. While there is a tendency to emphasize the atomic bomb, civil defense preparation does not neglect the more conventional types of attack with incendiaries, chemicals and bacteria. Newer techniques in defense

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