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GUIDE FOR CRISIS RELOCATION CONTINGENCY PLANNING



OVERVIEW OF NUCLEAR CIVIL PROTECTION PLANNING FOR CRISIS RELOCATION

**DEPARTMENT OF DEFENSE
DEFENSE CIVIL PREPAREDNESS AGENCY**

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CONTINGENCY PLANNING



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CIVIL PROTECTION PLANNING

FOR CRISIS RELOCATION

DEPARTMENT OF DEFENSE

Defense Civil Preparedness Agency

Preface

The Guide for Crisis Relocation Contingency Planning was prepared as part of a series of guidelines to assist NCP planners in developing State and local crisis relocation plans.

The Guide represents a third generation of planning guidelines based on the experience gained in applying the predecessor Working Draft Guide in eight pilot projects and the views of the involved planners. This Guide consists of the following four volumes.

- Overview of Nuclear Civil Protection Planning for Crisis Relocation (CPG 2-8-A)
- State (and Regional) Planning (CPG 2-8-B)
- Operations Planning for Risk and Host Areas (CPG 2-8-C)
- Updating Crisis Relocation Plans (CPG 2-8-D)

In addition to the above documents the following volumes previously developed and produced by DCPA supplement the guidelines and should be considered as part of the overall Guide:

CPG-2-8-E Organizational Planning for Crisis Relocation
January 1976

CPG-2-8-F Preparing Crisis Relocation Planning Emergency
Public Information, February 1977

Research studies that have contributed to the evolutionary development of the Guide are described in the annotated bibliography, Appendix G to CPG-2-8-B and have also been reproduced for use by NCP planners as reference documents.

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1. INTRODUCTION

This document provides an overview of the Nuclear Civil Protection (NCP) planning program. In addition to orienting NCP Planners on the objectives, evolution, and scope of the program, it is intended to give State and local officials background on the concept of contingency planning for crisis situations.

This overview constitutes the introductory volume to the Defense Civil Preparedness Agency (DCPA) Planning Guide for nationwide NCP planning. The Guide is a third generation product and reflects the results of both field experience and on-going research in crisis relocation planning.

A brief history of the significant programs and policies that have led to and shaped the current civil defense posture is provided in Appendix A, which outlines the National Shelter Survey (NSS) program and the Community Shelter Planning program and discusses the factors leading to the development of crisis relocation concept, as an additional option for protection. NCP planning, but the balance of the overview volume assumes familiarity with the history and evolution of NCP.

CURRENT CONCEPT OF NCP

Survival of the greatest number of people in the event of nuclear attack is the goal of "Nuclear Civil Protection (NCP) Planning". This major DCPA program is directed toward providing decision-making officials with two basic options:

1. Protecting people essentially in-place, at or near their places of residence.
2. The orderly relocation of people, in time of international crisis, from areas of potentially high risk from the direct effects of nuclear weapons to low risk host areas -- and their reception, care, and protection in the host areas.

Much has been accomplished to develop plans and capabilities for the first option of protecting people in place through the NSS and CSP programs outlined in Appendix A. Since 1973, the NSS Program has been expanded in scope to include the identification of best available shelter from nuclear blast and heat as well as from fallout in high-risk areas.

The second protective option, termed "Crisis Relocation Planning" was initiated as a major objective in 1974. The CRP concept was tested and refined in a number of pilot projects and through special research programs, over a period of several years. DCPA's near-term objective is for the nationwide development of initial first-generation State-level plans, followed by the more detailed local operational plans.

Interdependence of NCP Options

The two NCP options of in-place protection and crisis relocation are complementary, not mutually exclusive. This is because time available and circumstances could preclude crisis relocation, or could allow only partial relocation in which case there could be up to 135 million people in risk area at the time of attack. Even with full implementation of relocation plans, there would likely be 25 million of more people in the risk areas. This would include people remaining either from choice or necessity (seriously ill/institutionalized citizens), and for the designed key employees commuting to the risk area to maintain critical services and essential industries. Also, it is possible that it might be desirable to advise people to relocate only from some risk areas, not from all 400.

All people in risk areas at the time of attack would need in-place protection in best available shelter, whether the risk area population totaled 135 million, 25 million, or some number in between.

Relationship of NCP to World Conditions

As discussed in Appendix A, Soviet leaders are reported to have the capability to exercise either the option to evacuate their cities or to shelter the population in place, depending upon their assessment of a given situation. The U.S. should have similar options for two reasons: (1) To be able to respond in kind if the Soviet Union attempts to intimidate the U.S. in a time of crisis by evacuating the population from its cities, and (2) To reduce fatalities if an attack appears imminent.

If the majority of the population of major U.S. metropolitan areas were to be relocated before an all-out attack, and fallout protection provided in host areas, total survivors would number about 180 million - as compared with about 110 million with well-functioning, in-place protection.

Identification of Risk Areas

Approximately 400 "high-risk" areas have been designated for planning purposes. Potential target areas within the United States fall within three categories:

Category I Areas which contain strategic offensive military forces, sometimes referred to as "counterforce" areas.

Category II Areas of high military value, such as key military bases, command and control facilities, and military industries.

Category III Primarily urban/industrial complexes with populations of 50,000 or more.

The process of identifying those areas more likely to experience direct weapon effects was based on "target values" developed to reflect the perceived category priority. These probable targets were reviewed to eliminate isolated military and industrial facilities considered to be of marginal significance. Soviet capabilities projected under existing arms limitation agreements were applied to the resulting target list, assuming all weapons were air-burst with reliability of 0.9 and aiming error (CEP) of one-half nautical mile. To maximize fallout conditions, all weapons were then assumed to be ground burst; an extremely conservative planning approach.

The current designation of risk areas for which crisis relocation planning is anticipated is continually subject to analysis and refinement at the Federal and State levels. (A more detailed discussion of risk area designation and application is given in the second volume of this guide.)

ROLE OF NCP IN REGIONAL AND STATE EMERGENCY PLANNING

As NCP concepts were developed, it was apparent that both in-place protection and crisis relocation contained elements and characteristics applicable to situations other than nuclear warfare. For example, in-place protection is needed for short warning natural disasters such as tornados while relocation is applicable in coastal areas threatened by hurricanes or floods. There are, however, a number of characteristics unique to either wartime or natural disasters.

Natural disasters, for the most part, are site specific, that is, they involve a single contiguous area rather than the entire nation. In addition, the duration of the emergency can usually be estimated. Conversely, an international situation serious enough to warrant evacuation of U.S. risk areas would be nationwide, of indeterminate duration, and could be resolved without an actual nuclear exchange.

Basic Emergency Operating Capability

It is generally accepted that all States and local jurisdictions require a capability to conduct coordinated operations during major emergencies. This basic emergency operating capability encompasses all the forces and resources available to the jurisdiction, and plans outline the functions needed in any emergency requiring coordinated operations. The Basic Plan defines the local emergency organization and responsibilities. The plan element (or annexes to the Basic plan) cover required system functions such as a capability for direction and control by key officials (an Emergency Operating Center facility, EOC staffing and procedures, and necessary communications); a capability to warn the public; and a capability to provide emergency information and advice to the public. It is intended that NCP plans for the in-place and crisis relocation contingency be incorporated into the basic emergency operating plans of the community (risk or host) and the State.

Regional Emergency Operating Centers

DCPA has actively pursued the development of underground Federal Regional Centers (FRC's) within each of its regions. Six underground centers are currently operational and house Regional DCPA staffs as well as representatives of other Federal agencies. These FRC's are designed to operate independently, if necessary under emergency conditions, in directing and coordinating the CD functions of survival and subsequent recovery operations (e.g., receive and transmit warnings, fallout predictions, situation reports, etc.). These facilities can withstand substantial nuclear weapon effects, are equipped with their own emergency water and power sources, and maintain a 30-day supply of food, fuel and other survival supplies.

To assure continuity of Federal and Regional emergency field operations, the Center's communication links tie in all the States in the Region into one network with DCPA. Plans are being implemented to provide watch Federal Regional Center with protection against the effects of electromagnetic pulse (EMP).

State and Local EOCs

Coordinated operations must be controlled at local level during civil defense emergencies and States must coordinate the operations of their local governments, consequently, it is urgent that State and local communities maintain an EOC as a focal point for emergency activities. For this reason, DCPA has promoted the development and construction costs. Although the primary objective is to develop and maintain a central facility for use in the event of nuclear attack, State and local EOCs are frequently used during peacetime disasters such as hurricanes, earthquakes, large-scale fire, floods, and ice and snow storms. In many communities, local EOCs serve as the permanent headquarters of government units such as police or fire departments as well as civil defense.

Emergency Operations Planning

In addition to a physical EOC facility, established emergency operations plans (EOP) at both the State and local level are essential to the capability to cope with various types of emergencies. The existing resources that can be mobilized in the event of a natural or nuclear disaster must be structured in response to the specific requirements of the emergency. These resources normally include police, fire, rescue, and other emergency forces; shelter against nuclear or natural effects; public works including public utilities, and news media/and other non-government resources such as doctors, hospitals, etc.

Local EOPs should incorporate all provisions for dealing with the various types of emergency the locality may experience. Once developed, EOPs should be kept up-to-date through periodic upgrading and should be ready for implementation at any time an emergency occurs. It is essential that exercises be conducted periodically, involving the key local officials who would be responsible to implement emergency plans, as specified in the DCPA "Standards for Local Civil Preparedness". Local emergency plans, if current and complete, provide a framework to which NCP plans can be added.

In a host community, for example, the contingency plan for crisis relocation covers such operations as providing temporary lodging for evacuees, feeding evacuees, and developing additional fallout protection. Should an urban evacuation be followed by an attack on the U.S. (rather than the crisis being resolved), other parts of the local emergency operations plan would then be implemented - for example, moving both residents and urban evacuees to fallout shelter, radiological monitoring and analysis, and providing emergency information to the public.

On-Site Assistance Program

In 1972, DCPA developed an approach for providing direct on-site assistance to help local governments improve their emergency operational readiness. Teams of Regional/State specialists were made available to work with local officials to assess existing local capabilities, determine deficiencies, and develop action plans to meet the requirements and correct deficiencies. In addition, these teams arrange for appropriate training, financial assistance, technical advice and other support necessary to improve readiness tailored to the specific needs in a given locality.

The broad scope of On-Site Assistance Program has resulted in a number of tangible accomplishments such as revised and improved local emergency operations plans; developed or improved emergency operating centers; coordinated public information with the news media; and demonstrated operational effectiveness during actual disaster situations.

STATE AND LOCAL STAFFING RESOURCES

DCPA provides two types of financial support to assist State and local governments in NCP and Emergency Operations Planning activities. Of primary importance is the provision of NCP contract planners fully funded by DCPA. On a 50-50 matching funds basis, DCPA also contributes to personnel and administrative (P&A) expenses for both local and State personnel who can provide assistance to NCP planners in developing State and local plans.

NCP Contract Planners

The development of plans for the two NCP strategies (in-place protection and crisis relocation) requires special staff skills and expertise not generally available in local civil preparedness staffs. Consequently, DCPA contracts with most States provide NCP planners to advise, guide, and assist in the development of State and local NCP plans. Particularly during the initial phases of NCP/CRP development, NCP contract planners are intended to lead the effort involved in preparing localized (risk and host area) operational plans. In at least one Region, DCPA contracts with consulting firms to provide the NCP planners for both State and local crisis relocation planning.

P & A Staffs

The staffs supported by the P & A program plan, coordinate and operate special activities not ordinarily a part of government (e.g., warning systems, NCP, radiological defense, and emergency direction and control). Although the civil preparedness functions are supported by DCPA to protect the civilian population against the effects of nuclear attacks, the activation of emergency plans in response to natural or manmade disasters results in substantial benefits to NCP capabilities. During large-scale disasters, the operations conducted by State and local government provide valuable experience in coordinated response to a serious emergency.

DCPA has stressed that P&A supported personnel are expected to devote a major portion of their efforts to the development of operational plans for the two NCP options. Experience indicates that State and local officials tend to see peacetime preparedness as their primary objective with attack readiness an important, but secondary objective. While peacetime disaster preparedness is not the Federal priority concern, such preparedness has served to motivate States to provide resources and to develop capabilities which are equally essential for attack readiness.

STRUCTURE OF GUIDE OVERVIEW

Section 2 of this Volume outlines current DCPA policy and the assumptions to be used in NCP planning based upon research, experience, and best available knowledge. (Detailed assumptions unique to a specific planning activity are incorporated in the relevant Guide document).

Section 3 summarizes the phased approach to crisis relocation planning and describes the rationale for this approach. Finally, Section 4 describes the purpose and intent of the Guide and its application by State and local planners. Supplemental information and resource information is provided in the appendices.

2 PLANNING ASSUMPTIONS

This section identifies the assumptions used as a basis for developing CRPs.

Since crisis relocation is a relatively new and evolving concept, some concepts and policies are still in the formative stage and have not yet been formally established. In addition, ongoing research is examining many of the complex issues involved in crisis relocation, as a basis for providing more definitive answers to questions such as economic stabilization during crisis relocation and the problems returning to normalcy at the end of a crisis relocation period. The following planning assumptions are intended, along with more specific planning assumptions in the detailed Guides to provide a current basis for planning. These assumptions will be updated periodically as concepts are refined and additional details of policies developed.

IMPLEMENTING CRISIS RELOCATION

An initial question sometimes posed by State planners is how the decision to implement crisis relocation will be initiated.

Nationwide crisis relocation can be directed only by the President and would be directed concurrent with a declaration of National Emergency. The declaration of a National Emergency will give the President the authority to take all actions necessary to implement crisis relocation.

The President will request that the Governors of each State initiate operations for relocating population from U.S. risk areas and will urge the people to comply with the instructions of their Governors and other constituted State and local officials. The Governors will be responsible for Statewide implementation of plans to relocate the population. Local governments in both risk and host areas will continue to be responsible for and to exercise control of law enforcement, health, welfare, and other essential services within their jurisdictions.

CONDITIONS LEADING TO CRISIS RELOCATION

Because of the far-reaching effect of crisis relocation on the nation and its people, it can be assumed that the relocation of millions of people will be initiated only under the gravest international circumstances, in which a nuclear attack upon the U.S. is deemed to be a definite possibility. It is likely that evacuation of enemy cities could result in such an assessment. Under such circumstances a counter evacuation in the United States could provide additional time to resolve the crisis by peaceful means.

Should the crisis escalate to an exchange of nuclear weapons, crisis relocation of U.S. metropolitan centers and other risk areas would save ten of millions of lives.

RISK AREAS TO BE EVACUATED

The population located near a nuclear explosion would be subject to direct weapons effects (blast, heat, and initial nuclear radiation) as well as fires caused by the blast and heat, and fallout radiation. On the other hand, people remote from nuclear detonations would be threatened only by fallout traveling downwind from detonations that occurred on or near the surface of the ground.

As noted in Section 1, DCPA has analyzed the potential hazards from a nuclear attack, and, in consultation with State civil preparedness staffs, has identified areas considered relatively more likely to experience direct weapons effects. These areas consist of the metropolitan centers of the country in addition of areas of significant military or economic importance. The designation of these areas as "risk areas" does not constitute a prediction that any or all of these areas would be attacked. The designation of risk areas does provide a basis for planning for population survival, should such attacks occur.

NCP Planners have been provided with copies of DCPA Publications TR-82 "High Risk Areas", April 1976 which identifies the nearly 400 high risk areas. Additional computer printouts have defined the areas at risk (i.e., both blast and fallout) down to the population centroids of minor civil divisions. In addition, computer printouts based on two-minute grids have been provided to further refine the possible blast overpressures.

MOVEMENT TIME AND RELOCATION DURATION

Nationwide crisis relocation involve the evacuation of as many as 135 million people from up to 400 risk areas. Some portion of the U.S. risk population, estimated at between 10 and 20 percent, can be expected to leave risk areas in advance of nationally directed crisis relocation. These "spontaneous evacuees" may include families whose members do not have "key worker" or emergency responsibilities, and those who have a vacation home or relatives in mind as a destination and those others who feel endangered by remaining in risk areas as the crisis intensifies. These spontaneous evacuees will be subject to the same rules and regulations in host areas as later-arriving evacuees, should crisis relocation be directed for U.S. risk areas.

Once crisis relocation of the risk area population has been directed, a primary objective is to complete the movement from risk areas within 72 hours. The minimum duration of the relocation period is expected to be seven days. The maximum duration of relocation will probably be about two weeks, but the possibility of a longer relocation period of several weeks cannot be excluded.

The relocation period may be terminated either by a peaceful resolution of the crisis or by nuclear attacks upon the United States. Should the crisis be peacefully resolved, evacuees will be assisted to return to their homes in risk areas. Should the crisis escalate to nuclear attack, plans for attack operations will be placed in effect. After the in-shelter period, actions will be taken for continued survival, including conservation and use of surviving resources, followed by actions for recovery.

USE OF EXISTING PLANS AND SYSTEMS

Organizations and procedures established in State Emergency Resource Management Plans (developed by the Federal Preparedness Agency for post-attack operations) may be used in crisis relocation plans, but only if , and to the extent that, they are applicable to, or can be adapted to operations in a pre-attack crisis situation.

All plans for providing essential services and resources (e.g., food, fuel, transportation) during the relocation period will utilize existing distribution systems to the maximum extent possible, rather than creating new standby resource distribution organizations. Thus, the continued functioning of existing commercial systems, with their distribution or operations modified to meet the needs of a relocated population, is the fundamental and indispensable key to success in operations to relocate risk area population and to maintain them in a relocated posture for the duration of the period of intense crisis. Accordingly, the primary thrust of governmental actions at all levels will be to facilitate and support the continued functioning of such existing systems throughout the emergency period.

HOUSING FOR EVACUEES

It is not the intent of crisis relocation planning to utilize the residences of host area residents to house or provide fallout protection to evacuees from the risk area. Plans will be made to utilize public type facilities (schools, churches, etc.) for such purposes. However, EPI materials distributed to host area residents will encourage the voluntary sharing of residences for congregate care and shelter purposes.

HOSTING CONSTRAINTS

Nationwide, about twice as many people live in designated risk areas as live in areas that could host the relocated population. It would, however, be overly simplistic to assume that a "hosting ratio" of two relocatees to each host area resident would be feasible across the nation.

Nearly 90 percent of the risk area population resides in the urbanized areas of the nation, consequently, most relocation planning will involve central cities and their suburban fringes. In such urbanized centers as California and along the Northeast Corridor, the distribution of these risk areas is such that acceptable hosting ratios cannot be achieved without traveling inordinately long distances. Special solutions are required in these areas, and feasibility studies to develop such solutions are underway.

Hosting ratios will vary as a function of host area population. Other factors that may affect the ability of a specific area to support relocatees include accessibility; availability of congregate care facilities and fallout shelter; and water and sewer treatment facilities. In most areas of the nation, a hosting ratio ranging from 2 to 3 relocatees per host area resident can be expected. This assumes that relocatees are housed in nonresidential (congregate care) facilities.

ESSENTIAL SERVICES

Crisis relocation, if implemented in many or all risk areas, will halt all but the most essential commercial and industrial activity in risk areas, and will have substantial indirect impact on such activity in low risk areas.

Essential services and activities which will be continued in the risk areas during the crisis relocation period (through commuting by key workers from nearby host areas) include (but are not limited to) those listed below. It is expected that some may be continued at a substantially reduced level of activity:

- Police and fire protection for the risk area.
- Electric power production, petroleum refining, natural gas distribution, and other energy production or distribution.
- Production, processing, warehousing and distribution of life-support essentials such as food, fuel, and pharmaceuticals.

- Production of critical military end-items.
- Transportation
- Specialized medical treatment available only in larger cities.
- Communications services including news media (e.g., telephone, radio, TV).
- Courier service for the most essential mail.
- Operation of essential financial institutions.
- Municipal water and sewage treatment; solid waste disposal.

Other industrial activities in risk areas, not needed to support the relocation and continuity of the government, will require orderly shut-down. These procedures may require up to several days or a week or more, to prevent damage to equipment. Examples of activities requiring orderly shut-down include production of ferrous and non-ferrous metals, and chemical process industries. Shut-down will be accomplished by a portion of the work-force who will be designated as key workers, and will commute from nearby host areas for the time required.

Under certain circumstances, such as a protracted relocation period, the State or Federal Governments may require the resumption of additional critical production and service activities in risk areas without a general return of the population.

ECONOMIC ASPECTS OF CRISIS RELOCATION

From the outset of CRP, it has been recognized that the movement, housing, feeding, etc., of a large segment of the nation's population would create a serious disruption of the national economic system. The problem, ramifications, and analysis of the economic aspects of crisis relocation are the subject of a comprehensive study (Ref. 1).

When completed, this study will aid in defining governmental financial responsibilities and economic alternatives under crisis relocation conditions as a basis for establishing formal Federal policy. In the interim, the general nature of governmental action under CRP can be partially predicted from previously developed regulations and the traditional concept of governmental roles in large scale disasters, wars, and similar emergency situations.

There is no doubt that crisis relocation will result in extraordinary expense to the individual, to industry, and to local and State government agencies. The question becomes: (1) who will pay for these additional expenses? and (2) what economic mechanisms can be employed to support CRP as well as maintain the basic national economy?

State and local-level CRP planning should be conducted on the assumption that Congress will provide some form of financial assistance/relief to State and local government to offset the costs of services supporting crisis relocation. In an emergency situation, the Federal government, in concert with State and local governments, could be expected to assist individual economic units (i.e., individual citizens, private sector business, etc.) to allow continued economic functioning both during and after the crisis.

The Government has a number of existing mechanisms for supporting those adversely affected by war or disaster. Direct and indirect financial assistance during and after an emergency is provided by such means as unemployment benefits, grants, low-interest loans, contract and/or tax preference, etc.

Although the scale of economic assistance associated with crisis relocation is orders of magnitude greater than a regional emergency situation, the magnitude of the problem makes clear the need for reliance on government economic assistance.

The methods employed for economic control may differ depending on the ultimate outcome of the crisis situation. For example, in the event of a peaceful outcome, the most desirable control measures would be those that did not disrupt peacetime methods of performing essential activities (using established distribution systems, check clearing, payroll, etc.). In the event of a nuclear attack, measures would stress host area self-sufficiency and may include direct controls such as price and wage controls together with rationing of essential goods. Federal and State plans for postattack management of resources would be involved, and provide for these and related actions.

While many persons will continue to perform their normal essential jobs during a period of crisis relocation and others will work at emergency tasks, many employed persons will find themselves on forced leave and without their usual source of income. Similarly, many businesses and industries, both in risk areas and in host areas, will not be able to continue to operate. Continuing to pay salaries and wages may not be possible for most businesses and even governmental organizations. For example, the preparation of payroll vouchers, normal banking facilities, and delivery of the mails will be curtailed.

For a period of a week or two, these problems may not be severe. The provision of housing and other essentials, including food and medical care, is likely to be at the expense of the government for relocated families and many host-area families as well. If the crisis is peacefully resolved, provisions will undoubtedly be made to compensate individuals for losses entailed by the relocation, and to provide government credit to businesses whose losses have placed their continued existence in jeopardy. While the

details of such arrangements have not been defined, it should be assumed that no one will be denied the necessities of life through inability to pay and that the continuity of businesses and other institutions will be protected.

This brief discussion of the critical economic aspects of crisis relocation is intended to provide an awareness of the difficulty of the problems, the assurance that these problems are being researched and resolved at the Federal level, and that specific solutions and policies will be forthcoming within the overall time frame allocated for crisis relocation planning. Lack of definitive economic policy at this time is not expected to impact or slow the initial crisis relocation planning activities. The first priority is to develop plans focusing on the physical movement of population from risk area and on primary physical problems of supporting them in host areas (e.g., temporary lodging, feeding, development of fallout protection).

CONTINUITY OF GOVERNMENT

Federal continuity of government plans will be revised, as required, to maintain the current Regional/State structure of Federal Government operations. Federal departments and agencies having emergency planning assignments are responsible for developing their respective plans to continue essential, uninterrupted functions in risk areas, during crisis relocation periods.

RETURN OF RELOCATED POPULATION

Return of the relocated population to their homes following a negotiated resolution of the crisis will occur at the direction of the States' Governors, generally at the request of the President. Crisis relocation plans will provide for control of the return or other measures deemed necessary for orderly reoccupation of risk areas and resumption of pre-crisis activities.

3. CRISIS RELOCATION PLANNING PROCESS

The basic process of CRP is similar to that used by urban planners in developing General Plans for cities and counties. While the individual elements may vary, the sequence and type of activity is similar. Figure 3-1 indicates the fundamental planning steps and how the CRP elements relate to these steps. However, the basic CRP process has been redirected somewhat to reflect changing national policy and goals, as discussed below.

PHASED APPROACH

Essentially, the underlying goal of the revised planning process is to develop an initial capability for crisis relocation in the shortest possible time, followed by more precise, detailed planning. The planning phases outlined below do not represent a radical departure from previous versions of Guides for Crisis Relocation Contingency Planning. That is, the work accomplished to date will remain valid; follow-on or future planning efforts, however, may require restructuring to some extent.

The following brief summary addresses the conceptual aspects of the phased approach and the rationale upon which it is based. The major planning activities and the interface among these activities are depicted in Figure 3-2. Detailed guidelines for the various planning stages are provided in the three subsequent volumes of this Guide.

PHASE I – INITIAL STATEWIDE NCP CAPABILITY

To obtain a rudimentary capability for the crisis relocation option in the relatively near future (one to three years), requires as a minimum, the identification of potential high risk areas, the initial allocation of host areas to the appropriate risk areas, specific assignment of risk population to host areas, an initial or preliminary State support operations plan based upon an analysis of resources required to support crisis relocation, and preliminary Emergency Public Information (EPI) material.

Initial Allocation

The initial allocation is developed on a statewide or regionwide basis and utilizes population ratios to allocate host areas (usually counties) to the designated high risk areas. DCPA provides the initial information for this analysis using the ADAGIO computer model. This model takes the population of all designated risk areas in one or more States and allocates all of the host

GENERAL PLANNING FUNCTIONS

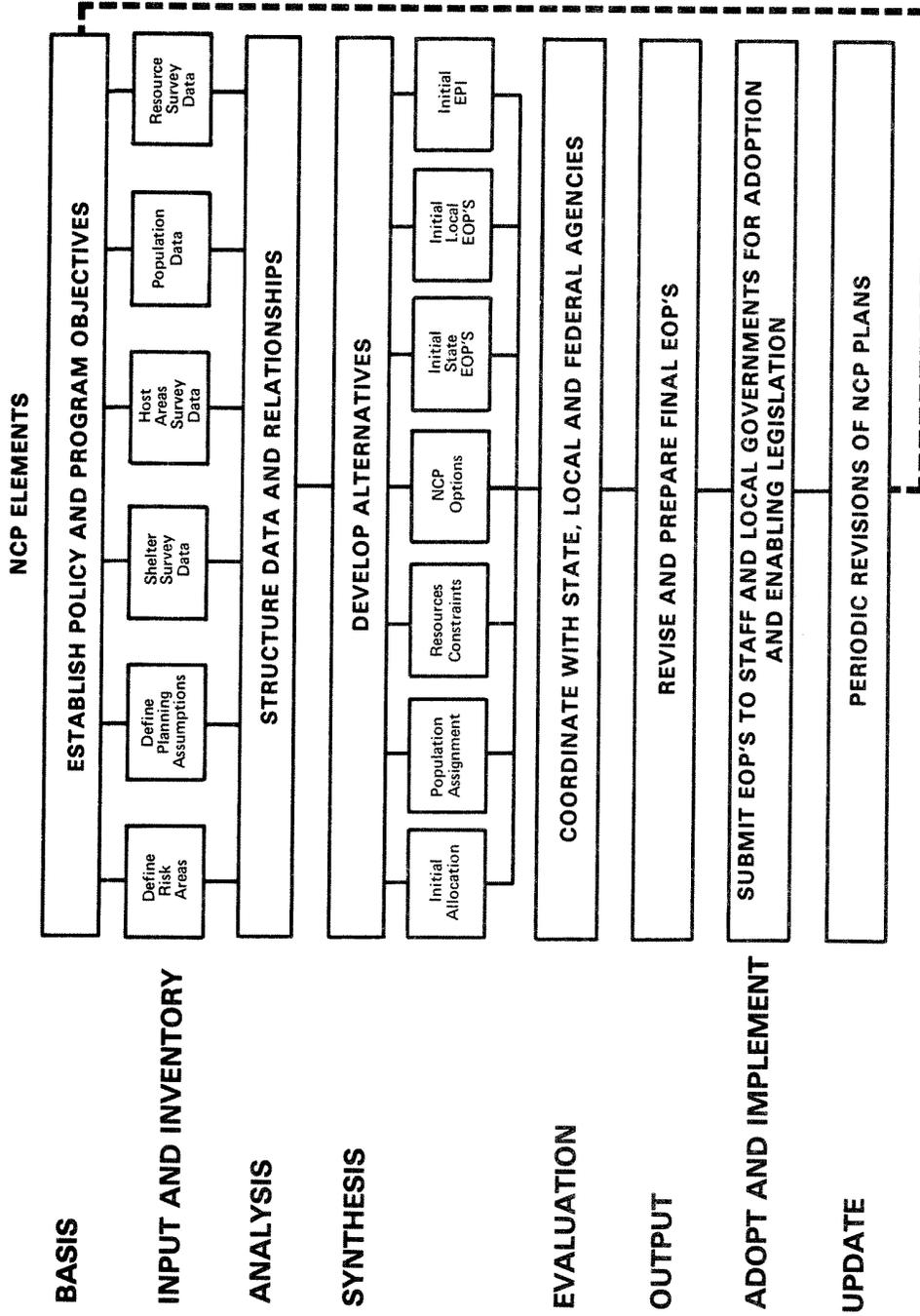
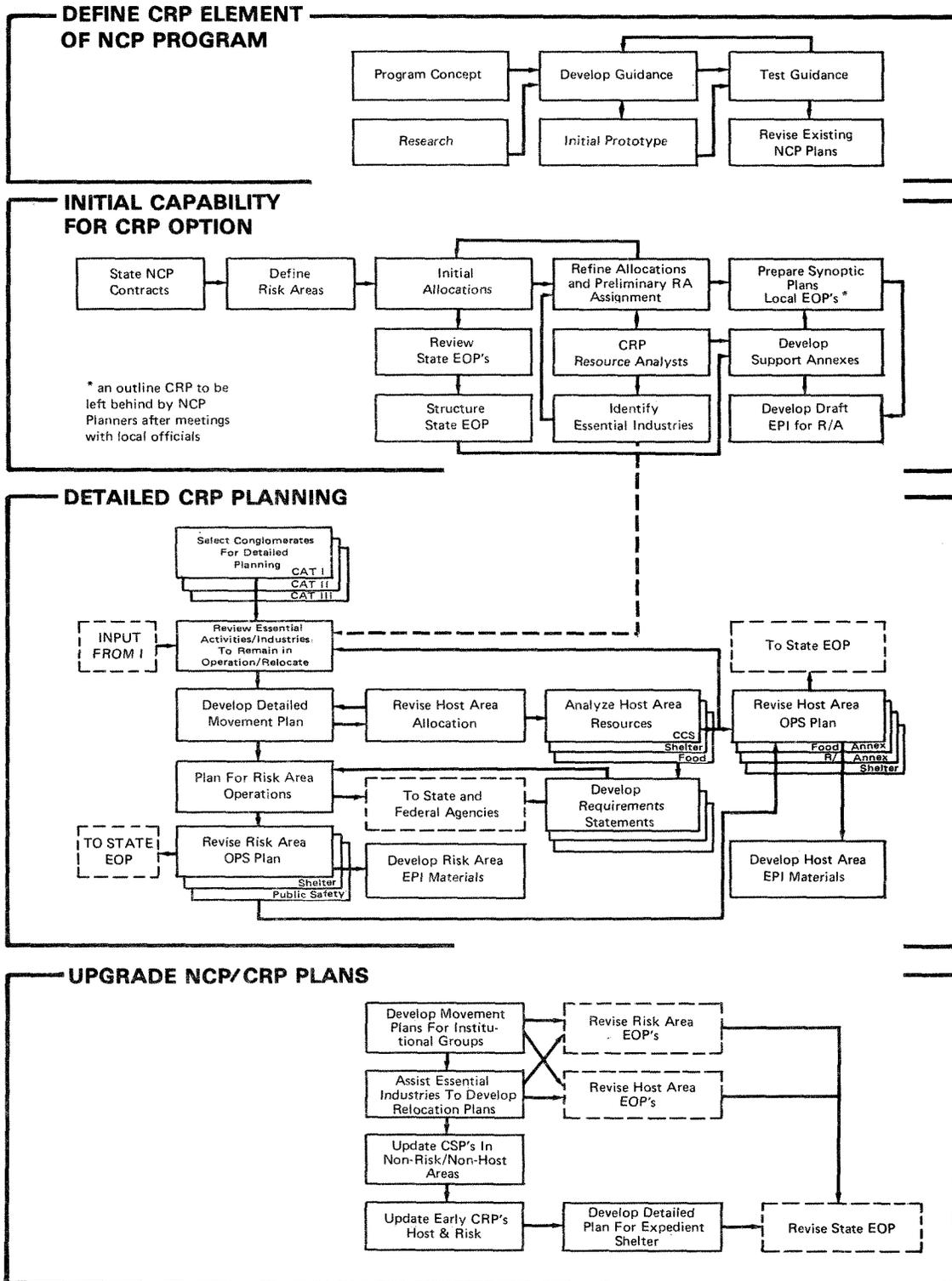


Figure 3-1

GENERAL PLANNING PROCESS EXPRESSED IN NCP TERMS

MAJOR PLANNING ACTIVITIES BY PHASE



county population on whatever ratio is specified (e.g., two relocatees to each resident of host counties). The basic premise for this allocation is that any area with existing population has an inherent ability and the resources to support additional population for short periods of time.

This ADAGIO allocation does not take into consideration factors such as natural barriers, traffic routes, or other physical facilities such as fallout shelter inventories and structures for billeting relocatees such as NCP planners will review these initial allocations and adjust them as necessary to account for these "real world" factors.

The Allocations as established and adjusted during the initial analysis are graphically portrayed in the form of statewide maps showing each risk area and its associated host area (s). Assignment of various stratified segments of risk area population to specific sites in the host area (s) follows the initial allocation. Figure 3-3 is an example of a typical State allocation map developed at this stage of the planning process.

Population Assignment

A preliminary analysis to adjust risk area to host area (s) allocations in a State (or multi-State region) will provide the basis for a more detailed (although still relatively general) analysis of each individual risk area. This will result in the assignment of people from specific parts of the risk area to designated localities in the host area along an indicated route. Detailed maps showing these specific assignments and movement travel routes will be developed in reproduction format such as the example shown in Figure 3-4.

The key workers who will commute to the risk area to operate essential risk area industries and services, will be assigned (with their families) to a nearby host locality. These assignments will be based on best available data and will not, at this stage, require precise identification and quantification from each essential industry or service organization.

State NCP Plan

The emphasis in Phase I is on developing the structure of a State plan that can be expanded, upgraded, and refined when subsequent planning efforts are completed and more precise detail is available. The State plan performs three functions. First is employment of State forces in direct support of local operations.

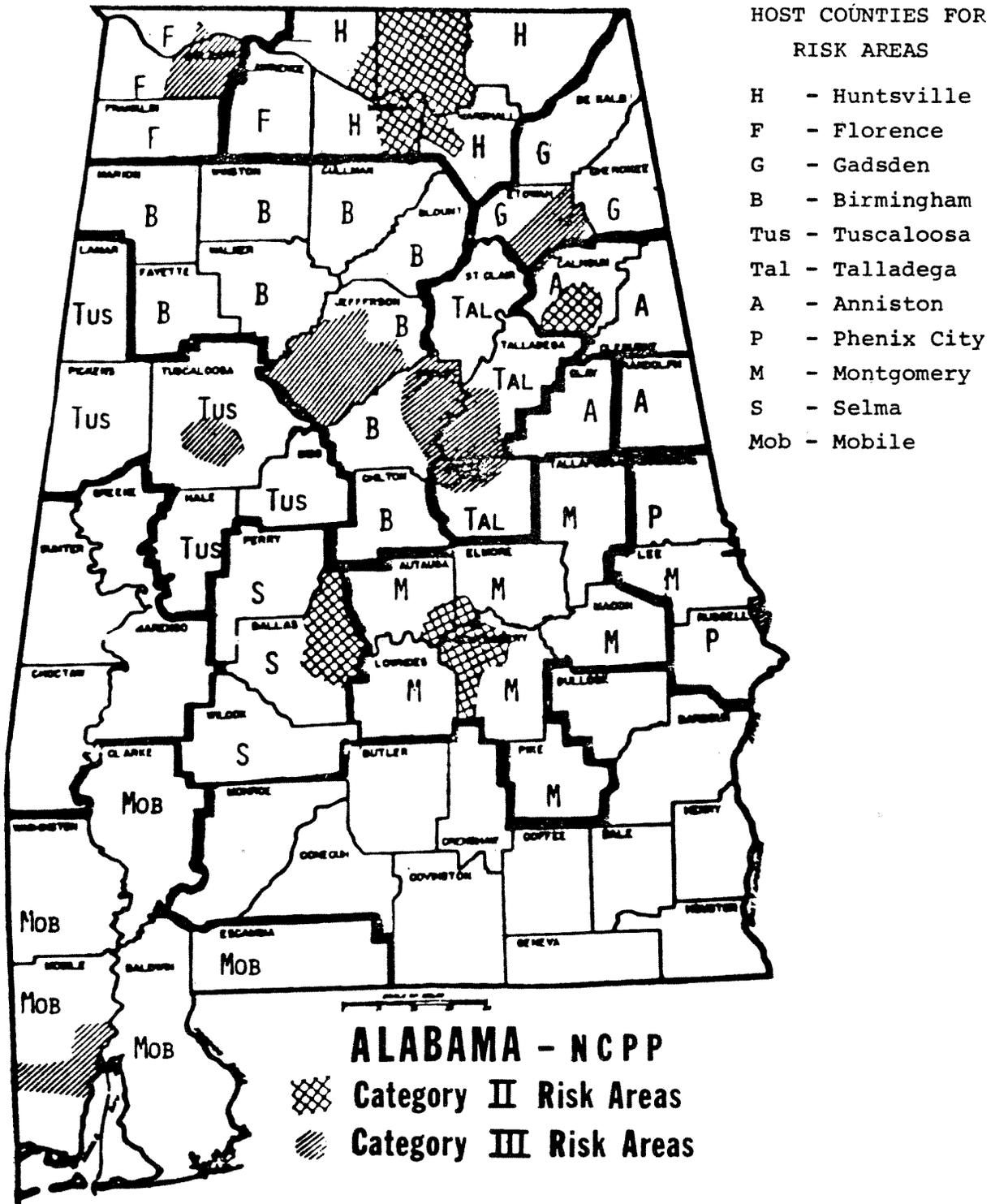


Figure 3-3

TYPICAL STATE MAP OF HOST AREA ALLOCATIONS

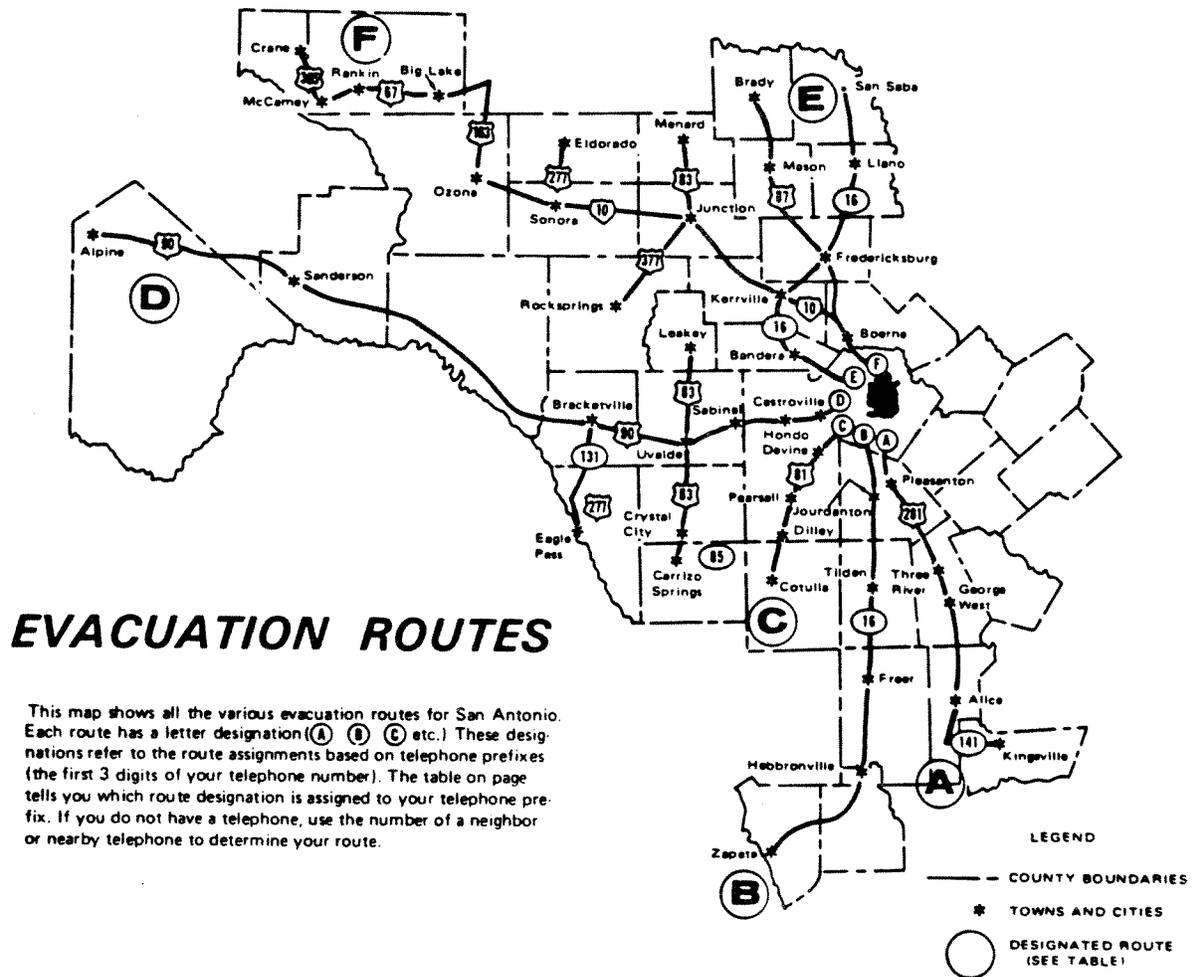


Figure 3-4

TYPICAL MOVEMENT ROUTES

The second is providing resource support by allocation of available resources, by control of their distribution and use, and by coordination of the activities of the public and private organizations whose combined efforts are required to distribute available resources to those who need them. The third function is to provide a basis for the development of local crisis relocation plans.

The initial State plan contains, as a minimum, the mission, responsibilities, organization, and operational support annexes. It should be based upon a review of the available resources and the need to control or distribute these resources. It should be recognized that crisis relocation planning is an iterative process and that the initial state CRP may require input from later detailed local planning. However, it is intended that this initial plan should provide as much basis as possible for actual operations should a crisis occur prior to its finalization. (A prototype State plan is provided in Ref. 2.)

Local CRP "Leave Behind" Plan

To further the goal of providing early crisis relocation capability, it is recommended that "outline" local operating plans be developed by NCP planners and "left behind" with local officials after meetings with the planners. Such a plan would contain the basic allocation and assignment information developed as well as the general information on mission, situation, and organizational responsibility that is readily available. It would be patterned on the prototype plans that support the Guide. While these outline plans would not be sufficiently detailed to permit immediate implementation "as-is", they would, however, provide a framework which could be expanded rapidly if a crisis situation occurred before they were completed. Such a plan would be optional but it would help involve local officials in the planning process and provide them with something to do until such time that the planners can return to the area to complete the plan.

Preliminary Emergency Public Information (EPI)

EPI materials and plans for their use will reflect results of successive planning phases. That is, EPI materials should keep pace with the planning effort and be expanded as more details become available. Accordingly, the earliest version of EPI will include a State map showing the host area (s) for each risk area. In addition, general information for risk area residents on "where to go/what to do" will be developed in the form of a newspaper supplement. The maps and the general information should be prepared in a reproducible format for immediate use should a crisis develop and should crisis relocation be decided on, despite the fact the planning is not complete. The EPI package should also include messages and instructions to be issued by the Governor and other State officials for newspaper, radio and TV media.

These "standby" or preliminary EPI materials will be replaced or updated by more specific information for each risk and host area upon completion of Phase II planning.

End Products of Phase I Planning

The completion of phase I planning should result in the following end products:

- An initial State-level operations plan including annexes which define organizational responsibilities and operations to be conducted during crisis relocation.
- Statewide (or multi-state) allocation of risk area population to host areas (map)
- Specific population assignment and travel route to designated host localities for each risk area within the State (maps)
- EPI materials for each risk area suitable for newspaper reproduction depicting "where to go and what to do" in case crisis relocation is decided upon.

PHASE II - OPERATIONAL PLANNING FOR RISK AND HOST AREAS

The second phase of planning focuses on developing detailed, local-level plans which would permit risk and host area jurisdictions to conduct effective operations should relocation be implemented. THE FIRST PHASE OF PLANNING STRESSES THE MOVEMENT OF PEOPLE, WHILE THE SECOND PHASE STRESSES THE NEEDS AND SUPPORT REQUIREMENTS OF THE POPULATION UNDER CRISES RELOCATION CONDITIONS.

Another fundamental difference between Phase I and Phase II NCP planning involves the increased participation of local agencies and staffs in the planning process. Phase I activities are generally conducted by contract NCP planners in coordination with the several State-level and regional agencies involved. Phase II requires the active participation of a P& A staffs, local Civil Defense organizations, and other local government and Non-government groups. Coordination of host and risk area planning activities is a crucial element of Phase II.

Completion of Phase II requires the availability of shelter survey data in host areas. While efforts are being made to coordinate shelter survey activities with the planning effort, past experience indicates that some problems may still occur since the survey effort needs to be conducted one or more years in advance of the plan development. Limitations on shelter survey resources over the past few years have precluded the buildup of a shelter survey inventory to satisfy ultimate planning requirements. Extraordinary efforts will be required to schedule the survey so that planning will not be curtailed.

Sequential Versus Simultaneous Operational Planning

Pilot project experience has shown that some NCP planners have interpreted the past Guidance to suggest that all host area planning should be completed throughout the state prior to initiating the risk area planning process. That was not the intent of the Guidance. Ideally, crisis relocation planning should be completed for each "conglomerate" including both host and risk jurisdictions, before commencing the planning for the next conglomerate. Within each conglomerate the planning may be undertaken simultaneously for the risk and host areas or sequentially. In the sequential manner, the plan for each jurisdiction is completed before moving on to the next jurisdiction. Simultaneous planning, which considers the entire conglomerate as an entity, has the advantage of encouraging communication and coordination between the affected jurisdictions; minimizing the delays and loss of momentum; and providing the complete capability for evaluating risk areas as well as adequately supporting the evacuees in the host areas.

Where it is necessary to undertake the crisis relocation planning sequentially, it is advantageous to complete the planning for host jurisdictions before undertaking the planning for the risk area jurisdictions. Since the host jurisdiction will often not have the capability and support resources to accommodate the expanded populations, this fact would be identified and become input into the risk area planning.

As a general rule, consideration should be given to accomplish crisis relocation planning for the Category I and/or larger risk areas before the Category II and III or smaller risk areas. This provides earlier relocation capacity in the counterforce areas and the larger risk areas that would potentially be targeted in a nuclear attack.

One other factor may affect this scheduling priority. This is the availability of host area survey data. Ideally, host area survey data will be available to accomplish the planning in the manner outlined above. Should survey data be unavailable for the higher risk conglomerates, then judgment should be exercised on whether to estimate the missing data and proceed with the high risk conglomerate, or select a lower risk conglomerate that has survey data available. This decision should be based upon the anticipated survey schedule and discussion with the DCPA Region.

Planning Teams

The core of the Phase II Planning teams will be the state contract NCP Planners. The responsibility for the development of crisis relocation plans fundamentally lies with NCP planners. However, DCPA's Program Emphasis has stressed that ...

"State and local P & A-supported personnel will be expected to devote a major proportion of their effort to the development ... of operational plans for the two NCP options ... Where planning for the crisis relocation option has been started by planners working under NCP contracts, State and local P & A supported personnel will work on local operational plans for crisis relocation, for both risk and host-area jurisdictions."

It is expected that future DCPA program emphasis will continue to reflect the same approach. Consequently, NCP planners should exert their best efforts to obtain the cooperation and assistance from local P&A personnel.

The role of the NCP Planner, ideally, will be to oversee and coordinate local planning activities, as well as to provide special expertise in dealing with CRP-related problems and issues. To the maximum extent possible, planning teams should be augmented with representatives of local government and non-government groups that will ultimately have operational responsibilities under the crisis relocation option. As a minimum, contact with (and input from) these groups will be necessary to the planning effort; accordingly, active participation in plan development should be sought to assure concurrence and acceptance of the resulting operational plan.

The number of NCP planners available under State contract, the status of Phase I planning, the availability of local P & A personnel and the number of host/risk area complexes within the State will determine the actual assignments and scheduling of Phase II planning teams.

Host Area Planning

The host area plans will cover such operations as temporary lodging and feeding of the relocated population, traffic control, medical care, and the development of additional fallout protection to accommodate the relocatees. Because of the scope of, and individual difference in, local hosting jurisdictions, it is necessary to involve local elective officials, agencies, nongovernment and industry groups, and CD staffs in the various aspects of plan development. Moreover, resulting operational plans must be compatible with local and State enabling legislation.

Host area planning will be based on the risk area allocations and population assignments developed in Phase I matched against the resources uncovered in the host area survey. From this input, given the additional population to be supported, the existing resources in a host area jurisdiction can be balanced against the overall resources needed to support this expanded population under relocated conditions. The result of this analysis will identify the required support in terms of manpower, supplies, and equipment needed to augment local capabilities. It will also indicate whether any further adjustment is needed in the population assignments. Requirement lists of the necessary supporting resources then become a major input to planning for risk area operations (especially in the support area).

Another issue that must be resolved in the early stages of host area planning is the protection of both residents and relocatees from fallout should a nuclear attack occur. While most host counties have existing CSP's, these shelter plans do not reflect conditions under the crisis relocation option. Further, many plans have not been updated since their original development as long as ten years ago. New survey data, for example, has identified substantial shelter spaces not previously listed. On the average, the known inventory has been doubled by host area surveys. Furthermore previous guidance in developing CSP's stressed using all available fallout protection much of which was located in upper stories of buildings in the larger cities. Such guidance is no longer valid.

Local policy decisions must address whether the host area should maintain two CSP's; one for local residents with or without crisis relocation, and one for incoming relocatees. The decisions should be based on an assessment of available NSS spaces identified in the new surveys, potential upgradable facilities, the feasibility of providing expedient shelter, and the most effective approach to accommodating and protecting the expanded populations, both residents and relocatees. To the extent possible, the CSP assignments for residents should not be changed in the CRP.

An operation plan is then developed (or modified if currently existing) which assigns essential crisis relocation functions to appropriate governmental or private agencies. Coordination and liaison among these agencies in both the host and risk area jurisdictions are key elements of effective planning and should be established in the early stages.

Detailed guidance for host area planning is presented in the third volume of this Guide. A prototype plan (Ref. 3) has been developed to illustrate one approach to formatting and structuring a basic plan and supporting annexes.

Risk Area Planning

Operational planning for a designated risk area addresses several major functions. First, it must direct and control the orderly exodus of risk area population. This involves scheduling and managing the traffic movement in and out of the risk area; preparatory fueling and service of vehicles; and the provision of public or specialized transportation for some segments of the population.

The second key element of the risk area plan involves provision of the manpower, equipment and supplies needed to support the relocated population as defined by the host areas' requirements statements. The relocation of the necessary supplies and equipment to the host counties must be planned for and scheduled as part of the movement plan.

The next planning element is directed toward protecting, maintaining, and supporting the essential services and industries which must continue to operate within the risk area. Included in this task is the provision of supplies and services within the risk area to support the remaining population such as key workers, institutionalized people, etc. In-place protection of these groups in case of attack must also be planned.

Implicit in Phase II Operations Planning is the provision for relocating essential industry and government activities on an organization group basis. This involves identification of essential organizations, specifying key workers and their dependants and arranging for nearby hosting facilities and commuting procedures. There are a number of issues that should be resolved at the local level, for example, the feasibility of locating all workers of an essential industry in the same host area rather than only those designated as key to the operations. In this case, local characteristics such as the availability of nearby hosting facilities, the number of employees involved, the nature of the essential industry/service, etc., must be considered in determining the most reasonable approach.

The local risk area plan should define the three operating time periods (the preparatory period, the relocation period, and the attack period) and should be closely coordinated with, and compatible with the host area plans. Specific guidance for risk area planning is provided in the third volume of this Guide. A prototype plan is also available (Ref. 4) which illustrates a typical plan document.

Emergency Public Information

The results of the detailed planning efforts for host and risk areas will provide the basis for upgrading and supplementing the initial statewide EPI materials developed during Phase I. Not only will more definitive information be available to update and /or revise the initial materials, but additional guidance can be developed such as what to do upon arrival in the host area, how to obtain public transportation out of the risk area, and further, more explicit instructions on providing upgraded or expedient shelter against fallout.

EPI materials should be ready for immediate use by the media. The form in which it is developed for reproduction is determined at the local level. The specific procedures for preparing EPI materials are contained in "Guidance for Preparing Crisis Relocation Planning Emergency Public Information" (Ref. 5). The issues and planning activities associated with host and risk area EPI packages are also discussed in the third volume of the Guide.

Updating State Plans

It should be clearly recognized that rework of the State plan will be necessary at the end of Phase II in order to attain a comprehensive, implementable State operations plan.

Under the phased planning approach, the initial State plan developed as part of Phase I will require revision and expansion to reflect the results of the detailed, local-level planning accomplished in Phase II. Critical policy and operational decisions based on detailed analysis can be expected to change the initial plan, which was developed on the basis of planning factors and assumptions for a given conglomerate. Development of CRP'S for the other conglomerates within the State will impact on the initial State plan.

The service/support annexes in the initial Phase I State plan are apt to be inadequate in that many of the State supportive requirements will not emerge until the results of subsequent host and risk areas planning are available. The roles and responsibilities of State agencies will become more precisely defined as local planning is completed. (This is not intended to imply that further revisions will not be required as policies or conditions change).

4. APPLICATION OF GUIDE

PURPOSE AND INTENT

The purpose of this and subsequent volumes of the Guide is to assist the State and local staffs to develop reasonably implementable crisis relocation plans. The first four volumes of the NCP Planning Guide reflect the revisions, additions, and improvements which have resulted from the experience gained by testing the predecessor Guide in pilot planning projects and from on-going research. The NCP planning process is, by definition, dynamic. Assumptions, variables, and uncertainties are intrinsic factors which are strongly influenced by world conditions and by federal, State, and local policies. Consequently, this current guidance is subject to further revisions responsive to changing conditions and to increased knowledge and experience gained in planning.

It is not the intent of these guidelines to mandate precise procedures to be followed. It is recognized that each State or locality will have unique characteristics, requirements, and constraints. Because of the wide geographic, demographic, political, and regulatory differences among the States and local jurisdictions, it would be extremely difficult, if not impossible, to anticipate and address infinite individual requirements in this Guide.

The procedure outlined in the planning guide are recommended approaches based on actual experience. To the extent possible, alternative techniques are given with the rationale for application. The knowledge and judgment of the NCP planning team are a critical ingredient in the planning process. It can be expected that various planning teams will adapt and improve the recommended procedures or devise new techniques more suitable to their needs.

STRUCTURE OF GUIDANCE DOCUMENTS

This volume of the Guide presents an overview of the NCP planning process and seeks to provide the background information necessary to understand the phased CRP planning approach. It may be useful in orienting State and local officials or private industry management personnel not ordinarily involved in civil defense, but who will have, as a minimum, and indirect association with the planning process.

The second volume of the Guide entitled "Initial State (and Regional) Planning for Nuclear Civil Protection and Crisis Relocation" focuses on the procedures for structuring the Statewide crisis relocation basic plan and associated annexes. It introduces both the functional and organizational formats and provides planning factors that can be applied in this initial planning phase.

The subsequent more detailed planning to be accomplished at the local level for both risk and host areas is incorporated in the third volume, "Initial Operations Planning for Risk and Host Areas". This volume focuses on those procedures designed to produce crisis relocation plans that will provide the necessary information, instructions, and assignments of authority/responsibility to enable the risk area population to relocate and be adequately supported in the host area.

The fourth volume, is addressed primarily to finalizing the operations plans. This will include developing movement plans for organizational relocation of risk area population; assistance to essential industries/services in developing their internal relocation plans; developing expedient shelter plans; and updating community shelter plans for those counties that are neither risk nor host areas. These refinements will result in the need to revise and update the State NCP plan, the host and risk area operations plan, and the emergency public information plan.

PREPARATION AND USE OF PLANNING REPORTS

An essential and integral part of the planning process is the documentation of the work effort conducted in producing the initial NCP/CRP plans. As it becomes necessary to modify or update the plan, the team who produced the plan may not be available to work on the changes. Also, when considering changes to a plan, it is necessary to know the alternatives considered, the rationale, and the circumstances involving the various aspects of plan development. Therefore, leaving a clear-cut record of planning activities to guide future planners in revising and upgrading is a prime requisite.

The body of the planning report should trace the planning process beginning with the input data used and the initiation conferences with the state. The work sheets for the host area allocations together with a description of alternative allocations considered, should be recorded in an appendix. The rationale for the final allocations should be in a body of the report.

One section of the report should be devoted to a discussion of each support activity for which a plan was drawn. This discussion should record the alternatives that were considered and the rationale for the selection of those implemented in the plan. Each of these sections should be supported by an appendix listing conferences with State agencies and private companies, data sources and pertinent data, and any work sheets developed in the planning.

Considerations entering into the preparation of emergency relocation instructions should be recorded in the report, including the status, if any, of planning for the broader, emergency public information activities of which the relocation instructions are but a part.

PLANNING CHECKLISTS

Checklists of planning steps have been developed for each plan element and are included in each of the Guide documents. These checklists are intended to assist State and regional planners in three ways:

- To provide a device for indicating who is responsible for performing each of the crisis relocation planning activities.
- To serve as a common reference to ensure that each of the crisis relocation planning elements has been covered in the documented crisis relocation plan.
- To aid planners and other performing an initial review of the crisis relocation plan and periodic reviews in the future.

They are intended to complement the crisis relocation planning guidance, and in no way should be considered as a substitute for the more detailed guidance that precedes the checklists.

Appendix A - SUMMARY OF EARLY CIVIL DEFENSE PROGRAMS

The evolution of civil defense programs that have emerged since the early 1960's is summarized below. This brief history is intended to trace the changing DCPA policies and program emphasis in response to changing world conditions. It is also intended to provide the background and basis for the current Nuclear Civil Protection planning program.

BASIC CIVIL DEFENSE RESPONSIBILITIES

The protection of the civilian population from an enemy attack on the continental United States is an explicit responsibility of the government as specified by Public Law 920.* Under PL 920, Civil Defense includes...

"All activities and measures designed or undertaken 1) to minimize the effects upon the civilian population and government, caused or which would be caused, by an attack upon the United States, 2) to deal with the immediate emergency conditions which would be created by any such attack, and 3) to effectuate emergency repairs to, or the emergency restoration of vital utilities and facilities destroyed or damaged by any such attack."

Since 1961, the Federal Civil Defense (CD) Program has been the responsibility of the Department of Defense. The program's basic objective was to assist local and State governments -- financially, technically, and administratively -- in protecting their residents from the dangers of radioactive fallout that would blanket large areas of the country following a nuclear attack on the United States. At that time, protection against "direct" effects of nuclear explosions (blast, heat, initial radiation, etc.) was not included as part of the Program because it was not considered economically feasible.

The office of Civil Defense (OCD) operated under the Secretary of Defense from 1961 to 1964, and then the Secretary of the Army until it was abolished in May, 1972, when the Defense Civil Preparedness Agency (DCPA) was established as a new Defense Agency within the Department of Defense.

The basic CD programs leading to the development of the Nuclear Civil Protection program and, specifically, the crisis relocation concept are discussed below.

NATIONAL FALLOUT SHELTER PROGRAM

The office of Civil Defense initiated a National Fallout Shelter Survey (NFSS) in late 1961. The objective of the NFSS was to identify potential fallout shelter areas in all public and private.

*Passed by the 81st Congress, January 12, 1951

buildings (excluding single-family dwellings). During the ensuing years, some six million buildings were examined and more than 233,000 fallout shelter facilities were identified with a capacity to shelter over 230 million persons. Such facilities were licensed and marked as public fallout shelters, and many were stocked with Federally-procured, austere supplies of water containers, basic food rations, and medical, sanitation, and radiation monitoring kits. At the present time, there is no longer an active program to stock food and water.

In addition to fallout shelters, other necessary components of a nationwide civil defense system were developed, including warning and communications networks, radiological monitoring capabilities, and State and local emergency operating centers. As the nationwide program of defense against nuclear fallout radiation moved forward in the 1960's and early 1970's, State governments and most local governments expanded their emergency preparedness programs to include protection of residents from natural disasters and other peacetime catastrophes, as well as from nuclear fallout.

COMMUNITY SHELTER PLANNING PROGRAM

The logical next step in protecting lives in the event of a nuclear attack on the United States was to formulate community plans for providing local population with protective shelter that could be reached with (up to) 90 minutes of travel time. Utilizing the information gathered in the NFSS, these plans involve assigning people in specific areas to specific shelters, providing public information and instructions on "where to go and what to do" in case of an attack, and devising methods of providing protection from residual radiation "in place" (home basements, expedient shelter) in cases where public shelters were insufficient to house all of the population.

The Community Shelter Planning (CSP) program has been wholly funded by the Federal government. Although the CSP has produced shelter plans for 2,900 counties (over 94 percent of total U.S. counties), many CSP's require updating because of the changes in population and in local inventories of shelter in existing structures, and because of the risk orientation approach which recognized the dangers of placing shelterees in upper stories of fallout protected buildings from the initial nuclear weapons effects of blast and heat. The construction of public shelters that would withstand the direct (blast) effects of a nuclear explosion has been rejected as being too costly. However, the National Shelter Survey continues to identify additional fallout shelters primarily in newly constructed facilities, and to identify those structures in risk areas, that would provide some protection from the direct effects of nuclear explosions.

CRISIS RELOCATION CONCEPT

It was apparent from the NFSS that only a small portion of the civilian population of a metropolitan area could be protected in-place from the blast effects of a direct nuclear hit. It also began to appear that any serious confrontation that could result in a threat of nuclear attack would probably

develop and escalate over a period of time. Consequently, the concept of relocating civilian population from target (or risk areas) to areas of low attack potential began to receive serious consideration as a viable alternative to NCP.

Tactical versus Strategic Response

Early strategy for the protection of civilian populations (1950's) was one of rapid or tactical evacuation after an attack had been detected. At the time, most nuclear weapons would have been delivered by aircraft requiring up to several hours of travel time to reach potential U.S. targets. It was therefore feasible to consider evacuating the population with the time available.

During the 1960's and 1970's, the development of reliable and accurate missile systems which would deliver nuclear warheads within 30 minutes after detection became a reality. With the reduction in time from detected enemy launch to nuclear explosion, it was no longer feasible to depend on tactical evacuation as a primary strategy.

The official position of the U.S.S.R. is that the protection of their population is a critical element of the defense posture of their country. Their reportedly well-developed Civil Defense program stresses crisis evacuation of the urban population.

Soviet efforts are outlined as follows in a recent book:*

"Civil defense and other war-survival measures have a central place in Moscow's strategic thinking and constitute a major element in its military preparedness effort."

"The Soviet Union has stepped up in very substantial ways its war-survival program since the advent of détente (peaceful coexistence) relationship with the United States in May, 1972, and is today steadily increasing its attention and resource allocations to the program."

"The Soviet leadership recognizes and evidently attaches great importance to the U.S.S.R.'s superior position as against the United States in war-survival capabilities from the standpoint of both scope and effectiveness of civil defense and related programs and of the degree of concentration of population centers and vital economic resources and activities."

"The Soviet leadership believes that these asymmetries between Soviet and U.S. capabilities can degrade the U.S. threat of 'assured destruction' as to give the U.S.S.R. a distinct advantage with respect to risk taking in the nuclear age and improve its chance of not only surviving but winning a nuclear war should it come."

*Excerpts from War Survival in Soviet Strategy by Leon Goure, Center for Advanced International Studies, University of Miami, Suite 1213, 1730 Rhode Island Avenue, N.W., Washington, D.C. 20036. 1976.

The need for the U.S. to develop an equivalent population relocation capability as a strategic deterrent added impetus to the further development of the CRP concept. Assuming eventual parity in nuclear weapons, and the existence of relocation capability on both sides, diplomatic resolution of international stress becomes a reasonable alternative to nuclear war.

Growth of CRP as Protective Option

The relocation of population from areas at risk was identified as a feasible protective strategy option at about the same time that the CSP was beginning and studies of CRP feasibility were begun in the 1960's.

An evaluation of CRP feasibility studies, NFSS, CSP programs, and research supported by DCPA and its predecessor agencies in the early 1970's, lead to the following basic conclusions:

1. An attack very likely would be preceded by a period of international tension or crisis. This could constitute "strategic warning", and provide time for protective actions to be taken.
2. If an attack should occur, the primary enemy targets probably would be U.S. missile sites, military installations, and industrial and population centers. Approximately 135 million people live in areas designated as at risk from the direct effects of nuclear weapons.
3. Blast and fire would endanger mainly people living or working near military targets and in large metropolitan areas. These may therefore be designated "high risk" areas for planning purposes.
4. Extensive fallout shelters exist throughout the United States, and more are being identified (mostly in the new buildings). Therefore, attention should now be given to protection against nuclear blast and fire (all effects shelter).
5. It is technically feasible to build special underground blast-and-fire shelters in high risk areas, but the public and the Congress would be unwilling at this time to underwrite the large cost involved.
6. It may be feasible, however, when an international crisis threatens to result in a nuclear attack, for residents of high risk area to be temporarily relocated to small town and rural areas, where nuclear weapons probably would not be targeted, provided these people could be protected against radioactive fallout and provided with food, water, medical care, and other life support services.

In the early 1970's studies were conducted to determine feasibility of developing CRP's for Richmond, VA. and San Antonio, Texas. Based on these studies, CRP guidance materials were developed and introduced in early 1974. These were refined in 1975 with input from a number of research studies and the revised guidance was tested in 8 prototype areas (Utica-Rome, N.Y.; Dover, Del.; Macon, Ga.; Duluth, Minn.; Oklahoma City, Ok., Colorado Springs, Colo.; Tucson, Ariz.; and Great falls, Montana). The experience gained by NCP planners in these prototype projects led to the revisions included in this current version of the CRP Guide.

APPENDIX B

LIST OF REFERENCES

1. Laurino, R. K. et al., Economic and Industrial Aspects of Crisis Relocation, Center for Planning & Research, Inc., Palo Alto, CA. CPG-2-16, Sept. 1977
2. Defense Civil Preparedness Agency (DCPA), An Initial (Synoptic) Prototype State Crisis Relocation Plan (CPG-2-8-A-1) US DOD, Wash., D.C. Jan. 1976
3. DCPA, Prototype Crisis Relocation Plan for Fremont County, Colorado (CPG-2-8-C-1), US DOD. Wash., D.C. Jan 1976
4. DCPA, El Paso County-Colorado Springs, Colorado Guide for Crisis Relocation Contingency: A Prototype Risk Area Plan (CPG-2-8-D-1), US DOD, Wash., D.C. Oct. 1976
5. DCPA, Preparing Crisis Relocation Planning Emergency Public Information (CPG-2-8-F), US DOD, Wash., D.C. Feb. 1977

C. GLOSSARY OF COMMONLY USED NCP TERMS

A

ADAGIO - A computer program which produces an initial allocation of population from risk areas to host jurisdictions, taking into account such factors as total population, host ratio, and travel distance.

Aid Agreements, Mutual (Pacts) - Written or unwritten understandings among jurisdictions which cover methods and types of assistance available during all phases of an emergency.

Allocation, Host Area - The process of designating rural, non-risk counties as hosting areas for a specific risk area.

Annex - A portion of a disaster plan which deals with only one department or service; e.g., fire, police, welfare, shelter, etc.

Assignment, Population - The process of determining what specific portion or segment of risk area population will be hosted in a designated host area locality.

B

Blast Wave - A sharply defined wave of increased air pressure rapidly propagated from the center of a nuclear detonation.

C

Census County Division - See Minor Civil Division (MCD).

Census Tract - A nonpolitical, geographical subdivision of no standard size, but within a city, town, county, or other political jurisdiction; it is used by the U.S. Bureau of the Census as a convenient and flexible unit for surveying and aggregating population, housing, and other demographic or economic statistics.

Civil Defense (CD) - As defined in PL-920, all activities and measures designed or undertaken 1) to minimize the effects upon the civilian population and government, caused or which would be caused, by an attack upon the United States, 2) to deal with the immediate emergency conditions which would be created by any such attack, and 3) to effectuate emergency repairs to, or the emergency restoration of vital utilities and facilities destroyed or damaged by an such attack.

Civil Division, Minor (MCD) - Those component parts of counties that have been used traditionally for the presentation of statistics. They represent political or administrative subdivision of the States and may be townships, precincts, districts, independent municipalities, etc.

Civil Preparedness (CP) - Civil preparedness is directed at helping State and local governments improve their readiness for lifesaving operations in any type of emergency. Emphasis is on operational capability -- the ability to actually conduct coordinated operations in a major emergency. In a legal sense (PL-920) civil defense refers to an enemy attack whereas civil preparedness refers to all emergencies.

Committed Support - A State resource which is assigned to and joins the local jurisdiction just prior to, or when crisis relocation is ordered.

Community Shelter Plan (CSP) - A document (normally published in map form) that enables a local government to give its people the answers to questions, "Where do I go for shelter?" and "What do I do?" when the warning sounds. The CSP designates specific shelters to be used by people working or living in specific areas of the community, thus allocating the people to the best available fallout protection.

Community Shelter Planning - the process of developing a community shelter plan.

Community Shelter Planning Officer, State (CSPOS) - A term formerly used to designate an employee for the State government, funded by means of a DCPA/State CSP contract. He provided CSP technical support for the State Civil Director with the primary mission of preparing plans for non-funded CSP areas.

Conglomerate - A term used to identify a risk area and its associated host areas. The Colorado Springs conglomerate would include the Colorado Springs risk area plus the host counties of Teller, Chaffee, Gunnison, Fremont, Alamosa, Sagauche, and LaPlata.

Congregate Care Facilities - Public or private buildings in the host areas that may be used to lodge and care for evacuees. Generally, assigned space is approximately 40 square feet per person. The facility may or may not meet criteria for designation as "fallout shelter".

Contamination - The deposit of radioactive material on the surfaces of structures, areas, objects, or personnel, following a nuclear explosion. This material generally consists of fallout in which fission products and other weapon debris have become incorporated with particles of dirt, etc. Contamination can also occur from the radioactivity induced in certain substances by the action of neutrons from a nuclear explosion.

Contingent Support - A State resource which is held in reserve and dispatched when a need is perceived after crisis relocation has begun.

Counterforce Targets - Places which contain strategic offensive military forces; e.g., SAC Bomber Bases, ICBM Fields, Missile Submarine Support Bases.

Crisis Relocation Plan (CRP) - The contingency plan designed to move populations from high risk areas to those of lower risk and to provide for their well being (i.e., congregate care housing, feeding, fallout protection, etc).

Crisis Relocation Planning - The process of developing a crisis relocation plan.

D

DCPA - Defense Civil Preparedness Agency, formerly known as Office Civil Defense (OCD).

Decontamination - The reduction or removal of contaminating radioactive material from a structure, area, object, or person. Decontamination may be accomplished by 1) treating the surface so as to remove or decrease the contamination; 2) letting the material stand so that the radioactivity is decreased as a result of natural decay; and 3) covering the contamination.

Direction and Control (D&C) - The control group in the EOC during the emergency operations consists of the Chief Executive (Mayor, County Judge, Governor, etc.), his deputy, chiefs of the emergency operating services and any supporting staff such as communications controller, public information officer, and legal advisor as deemed necessary.

E

Economic Stabilization - The result of using "indirect" controls (such as monetary, credit and tax measures) necessary to maintain and stabilize the Nation's economy under emergency conditions. "Direct" controls may be used in an emergency by local governments to stabilize prices, wages, salaries, and rents - and to ration essential consumer items.

Effects, Direct - The immediate emissions of a nuclear detonation considered most hazardous; namely, blast, heat, and initial nuclear radiation.

Electromagnetic Pulse (EMP) - Energy radiated by a nuclear detonation in the medium-to-low frequency range that may affect or damage electrical or electronic components and equipment.

Emergency Broadcast System (EBS) - A network of broadcast stations and interconnecting facilities which have been authorized by the Federal Communications Commission to operate in a controlled manner during a war, state of public peril or disaster, or other national emergency - as provided by the Emergency Broadcast System Plan.

Emergency Operating Center (EOC) - the protected site from which civil government officials (municipal, county, State, and Federal) exercise direction and control in a civil defense emergency.

Emergency Operations Plan (EOP) - A brief, clear and concise document description of action to be taken or instructions to all individuals and local government services concerned, stating what will be done in the event of an anticipated emergency. The plan will state the method of scheme for taking coordinated action to meet the needs of the situation. It will state the action to be taken by whom, what, when, and where, based on predetermined assumptions, objectives and capabilities.

Emergency Public Information (EPI) - Information which is disseminated primarily, but not unconditionally, at the actual time of and emergency; and in addition to providing information as such, frequently directs actions, instructs, and transmits direct orders.

Employee, Critical - See "Key Worker."

Evacuation Control Procedures - The plans made by the various Services to outline their duties and to insure the orderly movement of people during the evacuation period.

Evacuee - The individual who is moved to a less hazardous area. Also, may be referred to as relocatee.

Evacuees, Spontaneous - Persons who might leave an area in periods of intense crisis in response to a real or feared threat, whether or not they are advised to do so.

Exposure Control - Procedures taken to keep radiation exposures of individuals of groups from exceeding a recommended level, such as keeping outside missions as short as possible.

F

Fallout, Radioactive - The process of phenomenon of the fallback to the earth's surface of particles contaminated with radioactive materials from a cloud of this matter formed by a nuclear detonation. The term is also applied in a collective sense to the contaminated particulate matter itself. The early (or local) fallout is defined, somewhat arbitrarily, as those particles which reach the earth within 24 hours after a nuclear explosion. The delayed (or worldwide) fallout consists of the smaller particles which ascend into the upper troposphere and into the stratosphere and are carried by winds to all parts of the earth. The delayed fallout is brought to earth mainly by rain or snow, over extended periods ranging from months to years.

Fallout Shelter - A habitable structure, facility, or space used to protect its occupants from radioactive fallout. Criteria include a protection factor of 40 or greater, a minimum of 10 square feet of floor space per person, and at least 3 cubic feet of fresh air per minute per person when capacity is based on minimum space requirements. In unventilated underground space, 500 cubic feet of space per person is required.

Fire Patrol - The measure taken by the Fire Service to check the evacuated areas in order to prevent or to spot accidental fires.

G

Groups, Institutionalized - Persons who reside in public and a private group quarters of a varied nature rather than households. This includes hospital, nursing homes, orphanages, colleges, universities, and correctional facilities. Residents generally lack household possessions or transportation, or require special care and custody.

Group Quarters - Occupied facilities that do not qualify as housing units; i.e., institutions, hospitals, rooming and boarding houses, military barracks, college dormitories, convents, and monasteries. Group quarters are not included in the housing inventory.

H

Host Area - A specified area relatively unlikely to experience direct weapons effects (blast of 2 psi or more, heat and initial nuclear radiation) from a nuclear attack and designated for reception and care of risk area evacuees.

Host Area Survey - Survey conducted in designated "host area" which will receive and care for evacuees. Surveys include identification of congregate care facilities, shelter data, and capability to upgrade existing shelter.

Hosting Ratio - A fixed proportion of evacuees to indigenous population; e.g., a hosting ratio of 3:1 means there are three evacuees to each person already residing in the area.

Housing Unit - A house, an apartment or other group of rooms, or a single room is regarded as a housing unit when it is occupied or intended for occupancy as separate living facilities. The occupants of a housing unit may be a family or other group of persons or a person living alone.

I

Industrial Mutual Aid Association - A cooperative organization of industrial firms, business firms, and similar organizations within an industrial community united by voluntary agreement to assist each other by providing materials, equipment, and personnel needed to insure effective industrial disaster control in wartime or peacetime emergency.

Industries, Essential - Those plants which are necessary to the continuing operation of the national economy during the crisis relocation period.

Industries, Vital - Those local plants which are necessary for the production of goods to maintain the health and sustenance of the local population.

Industry Committees - Liaison groups from local companies who maintain close contact with the jurisdiction to insure that timely warning of impending movement is received. These groups also advise the jurisdiction on the effects of the evacuation on the industrial establishments.

IRIS - (Increased Readiness Information System) - A procedure by which State governments and selected local governments provide DCPA with periodic reports of actions taken during a crisis period.

J

Jurisdiction, Evacuating - The jurisdiction that is sending its people into areas of less risk during the emergency period. Also, known as "Risk Area" or "High Risk Area".

Jurisdiction, Host - The jurisdiction in which evacuees are received, lodged and cared for during the emergency period. Also known as "Host Area".

M

Medical Self-Help - Training provided to citizens and emergency forces for medical treatment of the injured and sick in the absence of professional medical treatment.

Minor Civil Division (MCD) - See Civil Division, Minor.

N

National Defense Transportation Agency (NDTA) - An association of transportation industry executives working with the DOD military and civil defense organization to make transportation support readily available in emergencies.

National Fallout Shelter Survey (NFSS) - the analysis of existing large buildings and subsurface enclosures by architects and engineers qualified in fallout shelter analysis to identify protected space suitable for use as public fallout shelter.

National Shelter Survey (NSS) - An effort started in 1961 as a National Fallout Shelter Survey (NFSS) to locate potential public fallout shelter space in the event of an attack. Millions of spaces were identified, marked, licensed and stocked with essential supplies. In 1973 the program was expanded to include "all effects", i.e., protection against the most likely peacetime attack hazards that each community would face, at which time NFSS was changed to NSS.

Northeast Corridor - The most densely urbanized portion of the nation, from Washington, D.C. through New York City to Boston, Massachusetts.

Nuclear Civil Protection (NCP) - A planning effort designed to provide protection of the population through one or a combination of the following options: 1) in-place, at or near their places of residence or work; and 2) orderly relocation of people from areas of potentially high risk from the direct effects of nuclear weapons to areas at lower risk.

Nuclear Civil protection Planner - An employee of the State government, or of a private contractor who is working to develop NCP plans under a contract funded by DCPA.

Nuclear Weapons - A general name given to any weapon in which the explosion results from the energy released by reactions involving atomic nuclei, either fission or fusion, or both. Both the atomic and hydrogen bombs are nuclear weapons.

Q

On-site Assistance - A community readiness survey process, involving Federal, State and local personnel, to determine the current operational readiness of a particular local community, to identify deficiencies, and to develop a course of future actions that will maximize capabilities to conduct coordinated operations in extraordinary emergencies.

Operations Plan - A description of actions to be taken in facing an anticipated disaster situation, and the method or scheme for coordinating to meet the needs of that situation. It describes the action to be taken (who, what, where, when and how) on the basis of assumptions, objectives, and capabilities.

Operations Planning - The process of determining the need for application of resources and determining the methods of obtaining and committing these resources to fill the operational needs.

Operational Evacuation - A concept of movement by organizations or organizational units (as opposed to individuals) to assigned host area relocation sites where they would perform their own reception, registration and operational support services. This would maximize the potential of the affected families to manage their own affairs and to alleviate some of the burden placed on the host area community.

Overpressure - The transient pressure, usually expressed in pounds per square inch, exceeding the ambient pressure, manifested in the shock (or blast) wave from an explosion. The variation of the overpressure with time depends on the energy yield of the explosion, the distance from the point of blast, and the medium in which the weapon is detonated. The peak overpressure is the maximum value of the overpressure at a given location and is generally experienced at the instant the shock (or blast) wave reaches the location.

P

Peak Population - As used in the National Fallout Shelter Survey, the maximum population occupying a Standard Location Area at any given time on a normal weekday. The peak population of a city or other area that includes more than one Standard Location Area is a summation of the peak populations.

Daytime Peak - maximum population occurring between 8:00a.m. and 6:00 p.m.

Nighttime Peak - maximum population occurring between 6:00p.m. and 8:00a.m.

Personnel, Auxiliary - An organized group of volunteers or quasi-professional people who have had specific training in a given activity. These groups are generally sponsored by, or affiliated with an operating government department.

Planning Directive - A document which translates "concept of operations" into instructions and general planning assignments.

Political Subdivisions - Local governments, including but not limited to cities, towns, incorporated communities, counties, parishes, and townships.

Protected Space - An area of a building or other enclosure which provides protection from fallout. Areas having a PF of less than 40, as well as those meeting DCPA fallout shelter criteria, are included.

Protection Factor (PF) - A number used to express the relationship between the amount of fallout gamma radiation that would be received by a person in a completely unprotected location and the amount that would be received by a person in a protected location.

Public Fallout Shelter - A shelter facility which contains fallout shelter meeting DCPA criteria.

R

RADEF - Radiological Defense.

Radiation, Initial Nuclear - Nuclear radiation (essentially neutrons and gamma rays) emitted from the fireball and the cloud column during the first minute after a nuclear (or atomic) explosion.

Radiological Defense (RADEF) - the organized effort, through warning, detection, and preventive and remedial measures, to minimize the effect of nuclear radiation on people and resources.

Radiological Monitor - An individual trained to measure, record, and report radiation exposure and exposure rates; provide limited field guidance on radiation hazards associated with operations to which he is assigned; and perform operator's maintenance of radiological instruments.

Requirements Statement - A listing of resources needed by a host area (i.e., personnel, equipment, special services, etc.) to supplement its existing capability to support the relocated population.

Resources - Manpower, raw or basic materials, finished goods and products, services, and facilities.

Primary Resources - those which by their nature have a national or interstate use. They generally include interstate wholesale stocks or manufacturers' inventories.

Secondary Resources - those which generally include retail stocks and intrastate wholesale stocks to meet essential needs within a single State.

Risk Area, High - Areas considered relatively more likely to experience direct weapons effects.

Criteria for designation of high risk areas may be found in "High Risk Areas", TR-82 April 1975, DCPA.

Risk Areas, High Fallout - Those areas (counties, MCD's) which have been designated at having a 50% or greater probability of at least a 10,000 Roentgen exposure over a 4 day period at the population centroid.

Risk Area Survey - Surveys conducted in high risk areas to identify fallout shelter space available and best locations to resist initial nuclear weapons effects.

Risk Categories - A further classification of the 400 high risk areas in order to indicate priority of planning effort. Category I designates place which are counterforce targets; Category II designates other places of high military value; and Category III designates urban/industrial complexes having populations in excess of 50,000 not covered in categories I and II.

S

Security Patrol - Members of the Police Service whose duty is to inspect evacuated areas and to prevent unauthorized entry to the area. In the Host Jurisdiction, their function is the same as that of the normal police, i.e., to maintain law and order among the population.

Service - An arbitrary functional grouping of normal governmental organizations for ease of operational control during emergencies. May be interchangeable with Department or Agency.

Service Annex - That part of a disaster plan that is prepared by and describes the duties of the components of a service during the emergency. It is included as part of the overall Nuclear Civil Protection Plan.

Shelter - An area which provides protection from one or more of the various effects (blast, fire, initial radiation and fallout) to which communities might be subjected in the event of nuclear attack because of their size, location, and military value.

Shelter Criteria, Fallout - A Protection Factor (PF) of 40 or greater, a minimum of 10 square feet of shelter floor space, and 65 cubic feet of space per person, and at least 3 cubic feet of fresh air per minute per person when capacity is based on minimum space requirements. In unventilated underground space, 500 cubic feet of space per person is required.

Shelter, Expedient - Any shelter constructed in an emergency or crisis period on a crash basis by individuals or single families.

Shelter Fallout - A habitable structure of space used to protect its occupants from fallout radiation.

Shelter Manager - A pretrained individual who provides for internal organization, administration, and operation of a shelter facility.

Shelter Occupancy Period - That period of time during which the radiation hazard is great enough to require persons to remain in shelter. This period is not expected to last more than two (2) weeks.

Shelter Survey, All Effects - A survey to identify protection against the most likely peacetime or attack hazards that a community could face.

Shelter, Upgradeable - Shelter space obtained by taking actions to improve fallout protection in existing facilities and spaces; usually accomplished by adding mass overhead and to walls through use of earth and other materials.

Staging Area (SA) - A preselected location having large parking areas and cover for equipment, vehicle operators, and other personnel such as a major shopping area, schools, etc. The SA provides a base for coordinated emergency operations, assembly of persons to be moved by public transportation to Host Jurisdictions, a rally point for mutual aid, and a debarking area for returning evacuees. Several of these areas should be designed to each Evacuating and Host Jurisdiction.

Standard Industrial Classification (SIC) Code - A numerical designator developed for use in the classification of establishments by type of activity in which they are engaged; for purposes of facilitating collection, tabulation, presentation, and analysis of data relating to establishments. (From SIC manual prepared by OMB Statistical Policy Division.)

Standard Location Area (SLA or SL) - A small geographic area identified by an 8- or 9-digit serial number (SL No.) and represented by a pair of geographic coordinates.

Standard Metropolitan Statistical Area (SMSA) - Areas of the United State defined by the U.S. Bureau of the Budget in five population groups ranging from 50,000 through 1 million or more.

Standing Operating Procedures (SOPs) - A set of instructions having the force of a directive, covering those features of operations which lend themselves to a definite or standardized procedure without loss of effectiveness.

State NCP Planner - An employee of the State government responsible for planning, coordinating and developing NCP plans for the State, and for communities and metropolitan areas throughout the State.

Stay Puts - Risk area residents who may refuse to leave even under the circumstances of manifest crisis and a directed relocation.

Strategic Air Command (SAC) Base - U.S. Air Force locations which house long range reconnaissance bombers and other weaponry capable of strategic offensive strikes; also conduct intelligence collection activities, surveillance, and development of countermeasures for the command's operational security.

Support, Committed - An individual or unit of the State forces assigned to a locality for the duration of the relocation period.

Support, Contingent - An individual or a unit of the State forces held in reserve and dispatched to a locality when the need arises, and only as long as needed.

Support Systems - Operating elements of civil defense not directly a part of the shelter system (and capable of existing independently of it), by which either insure or enhance the survival capability of the shelter system or replace it in the shelter emergency (postattack) period; such elements would include radiological monitoring, communications, traffic control, public order (police), firefighting, rescue, decontamination, medical care, public health, and emergency feeding.

T

Time Available for Movement - The maximum established time for travel according to the Community Shelter Plan (CSP) or Crisis Relocation Plan (CRP). In the CSP the recommended travel time is 30 minutes in urban or suburban areas and 60 minutes in rural areas; under the CRP the objective is to evacuate the area in 72 hours or less.

Traffic Control Points - Places along evacuation routes that are manned by police to direct and control movement to and from the area being evacuated.

Travel Distance - The maximum estimated distance the general public is expected to be able to travel to shelter within the established travel time. The travel distance is based on the reasonable speed possible for the anticipated travel mode, multiplied by the travel time.

U

Urbanized Area - A central city, or cities, and surrounding closely settled territory with a combined population of at least 50,000 persons. May be regarded as the "physical city" as opposed to the "political city".

V

Volunteer Personnel - individuals who make themselves available for assignment during an emergency. These people may or may not have particular skills needed during an emergency and generally are not a part of an organization group.

W

Weapon Cluster - Boundaries of an area which has experienced several computer simulated weapon detonations assuming all weapons were air bursts with a reliability of 0.9 and an aiming error of 0.5 nautical mile.

Worker, Essential - See "Worker, Key."

Worker, Key - An individual whose skills or services are required to continue operation of vital facilities and activities that will provide goods and services to the relocated population and host county residents, or insure continuance of the nation's production capabilities and preservation of the economic system.

Y

Yield (or Energy Yield) - The total effective energy released in a nuclear explosion. It is usually expressed in terms of the equivalent tonnage of TNT required to produce the same energy release in an explosion. The total energy yield is manifested as nuclear radiation, thermal radiation, and shock (and blast) energy, the actual distribution being dependent upon the medium in which the explosion occurs (primarily) and also upon the type of weapon and the time after detonation.