**CHANGE**

**AC NO:** 150/5200-17 CHG 1

**DATE:** June 28, 1974

# ADVISORY CIRCULAR

## DEPARTMENT OF TRANSPORTATION
## FEDERAL AVIATION ADMINISTRATION

**SUBJECT:** CHG 1 TO ADVISORY CIRCULAR NO. 150/5200-17, SUBJ: EMERGENCY PLAN

1. PURPOSE. This change provides additional guidance on care and services for uninjured aircraft passengers.

2. EXPLANATION OF CHANGE. The revised information involves:

   a. A listing of government units concerned with clearance of passengers on U.S. international airports (airports of entry) as participating elements in emergency plans for those airports.

   b. Reference to an FAA order which complements this guidance (8430.6A, Air Carrier Operations Inspectors Handbook) involving air carrier procedures for passenger handling following accidents.

   c. Deletion of the narrative on this subject from Appendix 1, Section 7, paragraph 5d and rearrangement of this information in the form of clarified procedures under a new Section (No. 10), Care and Services for Uninjured Aircraft Passengers.

PAGE CONTROL CHART

| Remove Pages | Dated | Insert Pages | Dated |
|---|---|---|---|
| 13 and 14 | 2/5/72 | 13 and 14 | 6/28/74 |
| APPENDIX 1 | | APPENDIX 1 | |
| 25 and 26 | 2/5/72 | 25 | 2/5/72 |
| | | 26 | 6/28/74 |
| 31 | 2/5/72 | 31 | 2/5/72 |
| None | | 32 and 33 | 6/28/74 |

Initiated by: AAS-720

3. HOW TO OBTAIN ADDITIONAL COPIES OF THIS PUBLICATION. Additional copies of this Change 1 to AC 150/5200-17, Emergency Plan, may be obtained from the Department of Transportation, Publications and Forms Section, TAD-443.1, Washington, D.C. 20590.

William V. Vitale

WILLIAM V. VITALE
Acting Director, Airports Service

AC 150/5200-17

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TAD-494.4

# EMERGENCY PLAN


FEBRUARY 1972

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

**CHANGE**

TAD-494.4

**AC NO:** 150/5200-17 CHG 1

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William V. Vitale

WILLIAM V. VITALE
Acting Director, Airports Service

**AC NO:** 150/5200-17

**DATE:** 5 Feb 72

# ADVISORY CIRCULAR

## DEPARTMENT OF TRANSPORTATION
## FEDERAL AVIATION ADMINISTRATION

**SUBJECT:** EMERGENCY PLAN

1. PURPOSE. This circular contains guidance material for airport managements to use in developing an emergency plan at civil airports.

2. CANCELLATION. This circular cancels, consolidates, and condenses information in the following publications:

   a. AC 150/1930-1, Radiological Decontamination of Civil Airports.

   b. AC 150/5200-10, Airport Emergency Operations Planning.

   c. AC 150/5240-1A, Airport Disaster Control Guide.

3. APPLICATION. The information in this circular is designed for use in developing emergency plans for airports under the Airport Certification Program and for other airports in carrying out their general safety program. This material complies with Department of Transportation Order 1900.4, Emergency Planning Guidance for Use of Transportation Industry. This circular is issued to inform the aviation public in a systematic way of non-regulatory material of interest in accordance with the policy stated in AC 00-1, The Advisory Circular System, dated 4 December 1962.

4. HOW TO OBTAIN THIS PUBLICATION. Additional copies of this circular and other circulars referenced throughout this publication may be obtained from the Department of Transportation, Distribution Unit, TAD-484.3, Washington, D.C. 20590.

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CHESTER G. BOWERS
Director, Airports Service

Initiated by: AS-570

TABLE OF CONTENTS

# CHAPTER 1. INTRODUCTION

1. GENERAL. Chapter 1 contains overall guidance. Chapter 2 lists organizations involved in emergency planning, furnishing emergency services, or having an interest in these services. Chapter 3, Table I, covers functions in the form of a general checklist for use in developing the airport emergency plans. The Appendix contains detailed information to complement instructions in the checklist; general information on the nature of emergency conditions with which airports may be confronted; and sample posters which can be obtained for use on airports covering safety rules on floods, hurricanes, tornadoes, etc.

2. BACKGROUND.

   a. With the publishing of this material, FAA guidance on decontamination as listed in paragraph 2 of the Title page was canceled. During review, it was noted that mere possession of this information was not sufficient to assure that untrained persons could effectively carry out the duties of decontamination and monitoring. The basic guidance as well as training in the techniques of these functions are available through programs administered by the Office of Civil Defense.

   b. Sample plans were not included in this circular. Examples in the guidance canceled under paragraph 2 of the Title page were considered during this development. The previous guidance listed special titles, etc., for the various functions and contained blank spaces which could be used for personnel assignments. As a result, the inference was made that airports could adopt the sample plan that most generally fit their situation and fill in the blanks. This put the emphasis on plans and assignment of key personnel rather than on programs.

3. SCOPE AND ARRANGEMENT OF PLANS. In plans to cope with or respond to the various situations, it is expected that airport managements will be specific in their instructions to cope with natural disasters, aircraft accidents, etc., but general in their plans to cope with nuclear disasters. Plans for airport emergencies should be developed around:

   a. Current instructions; and

   b. Long-range programs:

(1) The current instructions should include procedures to use existing assets to cope with emergencies. For example, this should include the use of basement shelters, etc., for protecting persons during natural disasters. It is generally recognized that shelters which give protection from nuclear radiation in many cases offer excellent protection from storms. It is also recognized that some shelters which offer good protection from storms offer only slight protection from nuclear radiation.

(2) The long-range plans should consider such things as:

(a) Providing shelters as outlined in AC 150/5355-2, Fallout Shelters in Terminal Buildings. (As indicated in this circular, local Civil Defense Directors can arrange for architectural engineering services to plan and design shelters.)

(b) Training in civil defense functions under the programs conducted by civil defense organizations.

(c) Purchasing ambulances where needed on a shared-cost basis through state plans based on the program administered by the National Highway Traffic Safety Administration (NHTSA).

4. ARRANGEMENTS FOR MUTUAL ASSISTANCE.

a. An analysis of reports on emergencies indicates that an airport can expect to get outside help in case of on-airport occurrences, whereas little if any help can be expected in case of widespread storms, etc. Mutual assistance for disasters should be based on all civilian and military manpower and facilities available in the vicinity of the airport. Legal counsel is required in making arrangements for mutual assistance. This includes provision for "hold harmless" clauses in agreements for persons such as doctors; persons or units from the military to assist in explosive ordnance disposal if such services are unavailable from local law enforcement bomb disposal units (BDU's); fire fighting services from nearby municipalities; ambulance and rescue services; hospital services; medical technicians, coroners, etc.

b. Plans for the magnitude of help needed at an airport for emergency medical services require that the arrangements take into account a variety of jurisdictional responsibilities. Such responsibilities cannot be circumvented by mutual agreements, but working arrangements can be established. Qualifications are usually made in such agreements to clarify responsibility. As an example, if a medical team from a city hospital arrives at the scene of an aircraft accident first, they should take charge of the emergency medical operation until the airport medical officer arrives.

5. COORDINATION. Coordination is essential with all agencies which are required to support the operation of the plan and with those who have a need to know about the plan.

## CHAPTER 2. ORGANIZATIONS AND AGENCIES INVOLVED IN EMERGENCY PLANNING AND FURNISHING EMERGENCY SERVICES

6. SUMMARY OF ORGANIZATION/AGENCY PROGRAMS. This chapter identifies a number of government agencies and other organizations involved in developing information on emergency situations or in furnishing services during emergencies. The information pertaining to these services is included for consideration in developing airport emergency plans. Some of these services have been referred to in other sections of this circular.

   a. The Department of Health, Education, and Welfare (HEW), Public Health Service, Division of Emergency Health Services, 5600 Fishers Lane, Rockville, Maryland 20952: The development and distribution of 25 Natural Disaster Hospitals for use in case of tornadoes, hurricanes, floods, accidents, etc., when existing medical and hospital facilities are overloaded, damaged, or destroyed. In addition, Packaged Disaster Hospitals have been pre-positioned and may be made available for use to meet national emergency and local disaster situations. Information pertaining to these units may be obtained from the state health officer.

   b. The National Highway Traffic Safety Administration, Traffic Safety Programs, Emergency Medical Programs Division, 400 7th Street, S.W., Washington, D.C. 20590. This program is outlined in the Highway Safety Program Standard 4.4.11. It is based on the Highway Safety Act of 1966. Items include authorization for Federal matching funds to states for the establishment of training courses for personnel as Emergency Medical Technician - Ambulance, the purchase of ambulances, emergency medical equipment, communications equipment, and other functions related to highway safety.

   c. The U.S. Coast Guard, Office of Operations, Search and Rescue Division, 400 7th Street, S.W., Washington, D.C. 20590: Search and rescue operations including rescue surface vessels and aircraft which are used to assist vessels and aircraft in distress, medical and surgical aid services, and flood relief work. (The helicopter-airlift units have a most significant role in performing these services.)

d. The U.S. Atomic Energy Commission, Washington, D.C. 20545: The furnishing of radiological emergency assistance.

e. The Deputy Chief of Staff for Logistics, Department of Army, Washington, D.C. 20310: The furnishing of explosive ordnance disposal (EOD) services when the capability does not exist in local law enforcement agencies or departments through detachments of highly trained specialists.

f. The National Oceanic and Atmospheric Administration (NOAA) through facilities of the National Weather Service, 8060 13th Street, Silver Spring, Maryland 20910, furnishes extensive severe weather warning services for official and public use. All portions of the Emergency Plan pertaining to natural disasters such as storms and floods should be developed in close coordination with the local National Weather Service Office.

g. The American National Red Cross, National Headquarters, Washington, D.C. 20006: The furnishing of services in times of transportation mishaps. Participation involves activity associated with survivor assistance; casualty handling; emergency worker assistance; and the furnishing of food, clothing, shelter, first aid and medical care, blood for the injured, transportation, communication with families, and temporary housing. This association also has communications equipment which may be used to supplement that furnished by airline personnel or other emergency workers at the scene of an accident; and the providing of cots, blankets, sheets, and other equipment for temporary morgues.

h. Safety and Health Committee of the Aerospace Medical Association, The International Quarantine, Airport Medical Service and Flight Sanitation Subcommittee, Washington National Airport, Washington, D.C. 20001: The program of this committee includes the assessment of medical facilities on airports including industrial and emergency needs. Major goals involve information gathering and extrapolation of data for developing an airport medical design guide.

i. International Association of Chiefs of Police, Management and Research Division, Eleven Firstfield Road, Gaithersburg, Maryland 20760: "Operational Guidelines during Community Tensions and Civil Disturbances." This is an outline for police administrators to establish effective means of dealing with community tensions

and disturbances. The National Bomb Data Center of this association also issues manuals and reports on bomb incidents and emergency planning. They are considered to be useful to those associated with air transportation security. Key planning manuals are:

(1) 01 Development of Bomb Incident Policy and Procedure.

(2) 04 Bomb Scene Procedures, The Protective Response.

(3) 06 Transportation, Storage, and Destruction of Bomb Materials.

(4) 08 Bomb Security Guidelines, The Preventive Response.

These reports are obtainable from the association upon request.

j. American Psychiatric Association, 1700 Eighteenth Street, N.W., Washington, D.C. 20009: "First Aid For Psychological Reactions in Disasters."

k. Office of Emergency Preparedness (OEP), Executive Office Building Annex, Washington, D.C. 20505: Areas for preparedness for a national emergency include the use of resources such as manpower, materials, industrial capacity, transportation, and communications; the civil defense program; the organization of Government; stabilization of the civilian economy; rehabilitation after enemy attack; and continuity of Federal, state, and local governments. The OEP has broad authorities and funds to provide assistance in major natural disasters and other catastrophies as well as for national emergencies.

l. The Office of Civil Defense (OCD), Office of The Secretary of the Army, Washington, D.C. 20310: Activity includes publishing and issuing information on civil defense; the fallout shelter program; civil radiological, chemical and biological warfare defense program; national warning network; emergency assistance for restoration in a post-attack period; and overall concepts for natural disaster programs. In connection with the OCD program and the guidance provided in this circular on disaster planning or nuclear attack, it is considered essential that airports obtain the publications indicated below from:

Department of The Army
U.S. Army AG Publications Center
Civil Defense Branch
2800 Eastern Boulevard (Middle River)
Baltimore, Maryland 21220

(1) MP-20 Publications Index, Office of Civil Defense Department of Defense.

(2) The Federal Civil Defense Guides listed in the Index under Emergency Services concerning radiological fundamentals (RADEF), decontamination, etc.

(3) FG-E-5-9 Handbook for Radiological Monitors.

(4) H-16 Handbook for Fallout Shelter Management.

m. The Department of Transportation (DOT), Washington, D.C. 20590: Maintains a system of Regional Emergency Transportation, Coordinators and Representatives consisting of Commanders of U.S. Coast Guard Districts, Regional Federal Highway Administrators, Deputy Directors of FAA Regional Offices, and FAA Regional Defense Readiness Officers.

n. The Department of Defense (DOD), Washington, D.C. 20310: On 23 April 1963, the Secretary of Defense approved the general policy for military support to civil authorities. This policy is outlined in DOD Directive 3025.10. Such support is described as "An emergency task within the mission of all Federal active duty and reserve units of the military service." The DOD directive emphasized that military assistance would NOT be a substitute for civil defense operations but would complement such operations. This support is furnished as a military mission in the event of a nuclear attack on the United States. Under such conditions, the Armed Forces will employ available resources which are not required at that time for offensive or defensive operations. These forces will be used to assist civil authorities to restore order and civil control, return essential facilities to operation, prevent unnecessary loss of life, alleviate suffering, and take other actions as directed to insure national survival and a capability on the part of the nation to continue the conflict. In such employment, established military organizational channels and prearranged plans will be followed when possible.

## CHAPTER 3. FUNCTIONS

7. ANALYSIS OF INFORMATION PERTAINING TO THE OVERALL CONCEPT OF THIS GUIDANCE.

a. This plan covers an extensive area of functions, responsibilities, and programs. Some of the programs are on a national scale, some are regional, some within a limited geographic area surrounding airports, and others within airport boundaries. Thus, from an analysis of the scope and the nature of the plan and from the activity required in carrying out the functional areas, it can be seen that this so-called plan in essence becomes a program.

b. The responsibilities for airport management are defined for certain functions, noted as being shared for some functions, and are not indicated for others. Airport management has the basic responsibility for developing, directing, and maintaining the plan; providing certain assets; obtaining mutual assistance; getting letters of agreements between the airport and participating governmental elements; and seeing to it that all emergency functions can be performed.

c. In addition to obtaining assistance from governmental elements on the airport, airport management uses assets from other programs. For example, in an aircraft accident involving commercial shipment of radioactive material, the major contributing problem would involve radiological monitoring and decontamination. These are functions performed under the Atomic Energy Commission program. While airports are expected to have some capabilities to do monitoring, etc., they would only assist AEC teams in such a case. Then, in view of the AEC program, the precautionary measures outlined for radiological incident functions essentially become a checklist for airport management. HOWEVER, IN CARRYING OUT THE FUNCTIONS UNDER THIS PLAN, THE AIRPORT MANAGER OR HIS REPRESENTATIVE IS EXPECTED TO EXERCISE DIRECTION OVER ALL AIRPORT EMERGENCY FORCES AS WELL AS OTHER UNITS MADE AVAILABLE THROUGH MUTUAL ASSISTANCE AND LETTERS OF AGREEMENT.

8. PERSONNEL ASSIGNMENTS AND TRAINING.

a. To do the jobs required during disasters and large scale emergencies, it is important that assignments be made to assure that all functional areas can be carried out. Even though certain offices regularly perform the functions, it is expected that the names of supervisors, etc., will be listed for each function; and that arrangements are made for operational lines of succession for principal management positions, supervisory functions, and other essential technical type jobs. With regard to abilities to perform, it should be considered that each person is able to do three jobs: the one he had, the one he has, and the one he will fill through succession.

b. All persons assigned these functions will need identification in the form of badges, identification cards, arm bands, fluorescent vests, team identification caps (baseball type), etc. Identification cards should be issued to all personnel who have emergency assignments. A large card for automobile identification should also be issued. In this connection, personnel who serve in an auxiliary capacity for these jobs should be given proper recognition for their special assignments.

c. Training of auxiliaries can be made interesting and worthwhile. Special training should preferably be scheduled during regular work hours. In the training program, reading assignments are encouraged. A typical assignment would be to study and learn the emergency plan. A well written emergency plan left untouched in the file cabinet is worse than no plan since it creates false security. Although costly in manpower and sometimes disruptive to business, it is considered necessary to have test exercises of the emergency plan. Such exercises can help determine the adequacy of guidance; the reaction capabilities of individuals and organizations to respond to emergency situations; or the training needs of individuals, units, or organizations. Initial and refresher training will be needed in orientation on the emergency plan, for other than routine jobs, and where persons are expected to do several things. Establishing lines of succession is also of the utmost importance as this is a key factor in providing for emergency management of the airport following a disaster.

9. GUIDANCE FOR DEVELOPING THE AIRPORT EMERGENCY PLAN.

a. The checklist in Table 1 contains the items to include in the airport emergency plan. By using the checklist format and completing the blank column to show emergency assignments, airports can adapt this format to their own needs. References are made in the checklist to connect supplementary material in the Appendix. It is suggested that the cross referenced material be used in this manner in airport emergency plans.

b. The airport emergency plan should essentially consist of the following papers:

(1) A general checklist similar to that in Table 1 (containing 6 pages);

(2) The 8 sections of material in Appendix 1 (containing 23 pages);

(3) A succession list of airport personnel who will be responsible for emergency management of the airport;

(4) A reference list of airport mutual assistance plans and letters of agreement;

(5) A reference to airport emergency notification procedures and instructions for requesting assistance for emergency medical services;

(6) Any special instructions for operating units such as the airport fire department or security forces; and

(7) Bomb incident procedures.

## TABLE 1. GENERAL CHECKLIST

| Functional Area | General Requirements Actions | Responsibility/Designations for Performance and Governmental Agency/ Element Participation | Established Programs/ Reference Material | Airport Emergency Assignments |
|---|---|---|---|---|
| a. Aircraft incidents and accidents * | Establish notification procedures; plans to respond to and to cope with occurrences; establish alert and standby procedures for airport fire fighting, ambulance and rescue services; provide care for any injured passengers; provide services for uninjured passengers; and activate mutual assistance plan if needed. (Reference Appendix 1, Sections 1, 7, and 10.) | FAA ATC/FSS personnel monitor communications, relay messages, and establish points of contact; airport management to establish means and procedures for overall notification and receipt of messages, and for response to emergencies. Units to be notified include: airport management; airport operations; fire department; emergency medical service; the airport security office; the airline; the NTSB; and the Federal Inspection Services involving the U.S. Customs Service, Immigration and Naturalization Service, Agricultural Quarantine - Inspection Service and the Public Health Services on international airports (airports of entry). | FAA Handbooks 7110.8B (Terminal Air Traffic Control), 7110.9B (En Route Air Traffic Control), 7110.10A (Flight Services), 7210.3 (Facility Management), and 8020.4A (Aircraft Accident Notification Procedures and Responsibilities). AC 150/5200-15 (Availability of the International Fire Service Training Association's Aircraft Fire Protection and Rescue Procedures Manual); also procedures established for emergency alarm system; and Order 8430.6A, Air Carrier Operations Inspectors Handbook, Appendix 3, Air Carriers Operations Bulletin No. 68-3, "Care of Surviving Passengers, Following Air Carrier Accidents." | * |

*The extent of material added in this change.

| Functional Area | General Requirements/ Actions | Responsibility/Designations for Performance and Governmental Agency/ Element Participation | Established Programs/ Reference Material | Airport Emergency Assignments |
|---|---|---|---|---|
| b. Bomb incident procedures including a designated parking area for aircraft suspected of having a bomb aboard. | Carry out procedures to assure that airport authorities, airport security offices, airline, etc., are notified; and park aircraft in isolated designated area. NOTE: THE PLANS FOR PARKING SUCH AIRCRAFT ARE EXPECTED TO BE TREATED AS PRIVILEGED INFORMATION. (Reference Appendix 1 Section 2.) | ATC; airport security office; airport management; the airline; and public affairs. | The program administered by the Office of Air Transportation Security, Headquarters, FAA, SE-1. | |
| c. Structural fires. | Establish procedures for notification of the fire department; evacuate structures in the vicinity of the fire; have employee designated to report to structure, facility, etc., to cut off power supply source as necessary for safety during fire fighting operations. In addition, make sure that emergency crews can gain access to locked areas such as electrical vaults. (Reference Appendix 1, Section 3). | The fire department; airport security office; the emergency electrician; medical services; and airport management. | | |

| Functional Area | General Requirements/ Actions | Responsibility/Designations for Performance and Governmental Agency/ Element Participation | Established Programs/ Reference Material | Airport Emergency Assignments |
|---|---|---|---|---|
| d. Natural disasters. | Set up plans for protecting the public during storms, such as hurricanes, tornadoes, earthquakes, floods or tidal waves; curbing operations as necessary during storms; and the utilization of fallout shelters, storm shelters, etc. (Reference Appendix 1, Section 4.) | Combined efforts of airport disaster control organization. | The Natural Disaster Warning System established by the National Oceanic and Atmospheric Administration. | |
| e. Crowd control and measures to prevent unlawful interference with operations. | Make arrangements with law enforcement or other authorities to get intelligence reports; carry out procedures in Appendix 1, Section 5, for crowd control, and take security measures to preclude sabotage; control of motor traffic, gates, access areas where pedestrians may enter the airport and block entry by underground service ducts, sewers or tunnels. (Reference Appendix 1, Section 5.) | Airport management; airport security office; local police forces and state police forces. | | |

| Functional Area | General Requirements/ Actions | Responsibility/Designations for Performance and Governmental Agency/ Element Participation | Established Programs/ Reference Material | Airport Emergency Assignments |
|---|---|---|---|---|
| f. Radiological incidents or nuclear attack. | These requirements are in two categories of:<br>1. Radiological incidents connected with the air transportation of radioactive material and nuclear attack.<br><br>a. Under the first category, carry out notification procedures as outlined in Appendix 1 and establish security measures around the area by the use of guards, ropes, barricades, etc. (Reference Appendix 1, Section 6)<br><br>b. Under the second category, follow the procedures for operating under the Disaster Control Organization and | ATC; airport security office; various state organizations which have capabilities for coping with non-defense types of nuclear incidents; and the tripartite agreement between AEC-DOD-HEW to cover assistance following radiological emergencies.<br><br>The airport emergency organization and DOD military forces. | FAA Handbooks 7110.8B (Terminal Air Traffic Control), 7110.9B (En Route Air Traffic (Control), 7110.10A (Flight Services), and 7210.3 (Facility Management). AEC Radiological Assistance Program Handbook; Information summary on Interagency Radiological Assistance Plan; Monograph on AEC Radiological Assistance Program; Monograph on U.S. Interagency Radiological Assistance Plan; Radiological Emergency Procedures for the non-specialist; (available from AEC, Division of Operational Safety, Washington, D.C. 20545).<br><br>The training programs of the Office of Civil Defense (OCD) for radiological monitors and for fallout shelter management. | |

| Functional Area | General Requirements/ Actions | Responsibility/Designations for Performance and Governmental Agency/ Element Participation | Established Programs/ Reference Material | Airport Emergency Assignments |
|---|---|---|---|---|
| | Establishing contact with Department of Defense organization for military support of civil defense functions. | | | |
| g. Medical Services. | Provide for using facilities located on the airport and/or arrange to get ambulances, services, and other mutual assistance from hospitals, clinics, etc., which are located off the airport. (Reference Appendix 1, Section 7.) | The designated airport medical officer. | The local and state health department's emergency medical service programs. | |

| Functional Area | General Requirements/ Actions | Responsibility/Designations for Performance and Government Agency/ Element Participation | Established Programs/ Reference Material | Airport Emergency Assignments |
|---|---|---|---|---|
| h. Removal of disabled aircraft. | Establish agreements between airport management and the airlines indicating owner/ operator responsibility for removal; include provision regarding airline maintenance procedures and capabilities for the quick removal of aircraft with tire, wheel or gear failures This involves removing the aircraft from surface maneuvering areas of the airport and performing the maintenance elsewhere. | The NTSB/FAA representatives for release of the aircraft to owner/ operator for removal; airport management. | AC 150/5200-13, Removal of Disabled Aircraft; ATA Aircraft Recovery Committee; and location of removal equipment at selected airports. | |

## SECTION 7. MEDICAL SERVICES

ıergency planning by all airports regarding medical aspects may be
varied as airports. Factors which should be given full consideration
ıclude the following:

Geographical location relative to the local community's business, residential, hospital and ambulance service locations.

Volume of non-traveler visitors and guests per day.

Proximity of large bodies of water.

Proximity of military facilities - size.

Status of local community medical resources (hospital, clinics, numbers of physicians, nurses, emergency medical technicians, etc.

ergency planning for medical response should be designated to
ovide quick, safe, efficient and controlled response in the case
one or two seriously injured or ill individuals and designed to
oduce a fast, effective, and controlled process for responding
over 100 major casualties. There should be no attempt on the
rt of any airport, regardless of size or volume of activity, to
tablish ON SITE all the resources required in incidents of mass
sualty. Nonetheless, the concentration of large numbers of people
airborne aircraft and on the ground creates an environment subject
potential major disaster. Thus it requires each airport to establish
mechanism for obtaining from outside the airport the required medical
ergency resources should the need arise.

veral major items deserve close attention in developing the emergency
dical plan. High on the list is the delegation of absolute respon-
bility for coordinating medical services to one individual. This
rson must have experience in establishing and managing emergency
dical care systems and preferably would be a physician or surgeon
th some aviation medicine experience. In the absence of a full-
me surgeon, the responsible official should have available to him
consultant surgeon who provides the required professional input
d monitoring.

4. Effective methods of communications for emergency medical ser are essential. Inaccurate or missing information concerning bers of sick or injured, hospital bed availability, ambulance requirements, and patient destination when leaving the accide site, are only a few examples of areas in which lives are end gered simply because of a communications breakdown.

5. In addition to the above planning factors, give consideratio

   a. Using air medical helicopter and/or fixed-wing evacuatio systems where available. In this connection, there are tary helicopters for Search and Rescue (SAR) or local ba rescue missions at some 130 different sites in the count mostly around the Nation's coastal perimeters and southe border. Helicopters are based at other military bases f training, logistics, and mission operations. A SAR heli unit maintains constant readiness and spends the greater of its time standing by for calls. Flying hours devoted SAR seldom exceed 25 percent of the total hours flown. sequently, some of these units are able to take on addit responsibilities without any increase in facilities or p sonnel. They are well trained in SAR, and the recovery highway ill or injured presents few problems not found i SAR missions. In actual practice, military rescue helic respond to a variety of emergencies and do not confine t selves strictly to military distress operations. For ex responses are regularly made to boating mishaps, lost hu and fishermen, civilian aircraft crashes, medical evacua from remote locations, etc. Also the Air National Guard about 400 helicopters in the country and their use for e gency medical evacuation offers considerable promise.

   b. The emergency use of other vehicles available on the air e.g., buses and trucks.

   c. Local plans for obtaining Disaster Packaged Hospitals.

   *d. Withdrawn under Change 1.

## SECTION 9. CONTROL TOWER FUNCTIONS RELATING TO EMERGENCY ACTIONS

1. The FAA Air Traffic Service has instructed tower and flight service station (FSS) chiefs to develop operational plans to cover their functions in handling aircraft emergencies.

2. At airports having both a tower and FSS, the tower chief will be the primary contact. Established and approved procedures are required to be defined in a letter of agreement with the airport manager. These procedures are based on the presence of either or both of these FAA facilities; the actual plan is expected to be tailored to fit the individual airport.

3. Tower or FSS personnel will notify the aircraft fire and rescue unit of messages concerning declared aircraft emergencies, when an emergency occurs or is believed about to occur. The following is an example of information that should be transmitted:

   a. Aircraft identification, e.g., "Cessna 1000 or November 1000."

   b. Information received from the pilot about the nature of the emergency.

   c. Runway to be used for landing.

   d. Estimated touchdown time; or the grid location of the crash, occurrence, etc.

   e. Number of occupants, passengers, and crew.

   f. The quantity of fuel on board.

   g. Presence of hazardous cargo or explosives.

## SECTION 10. CARE AND SERVICES FOR UNINJURED AIRCRAFT PASSENGERS

*

1. Background. Indications are that during a period immediately following an accident there is a need for coordinating the efforts of a variety of organizations to provide services for these passengers. Such organizations include airport management, the airlines and where applicable, the Federal Inspection Services involving the U.S. Customs Service, Immigration and Naturalization Service, Agricultural Quarantine-Inspection Service and the Public Health Service.

2. Under the overall direction of airport management, the plan for care and services in such situations should include consideration of the items outlined below.

   a. Reserving (at the time) an area or areas in the terminal or other facilities (coordinated with customs) where such passengers can be made comfortable and provided with special assistance such as telephone service and with accommodations as may be feasible under the circumstances.

   b. At the accident site, assisting the passengers in assembling in one general area - away from the aircraft, for further processing.

   c. Obtaining means of transport for the passengers from the accident site to the terminal, etc.

   d. Assuring that security is maintained at the accident site and in the areas occupied by these passengers.

   e. Considering the need and the right of privacy of individuals during a period of adjustment following such a traumatic experience.

   f. Providing access to personal articles and baggage (through customs) as soon as possible, or the furnishing of blankets until baggage or personal clothing items can be obtained from the aircraft.

   g. Assistance by representatives of customs, immigration, agriculture or public health services where applicable, in filling out clearance forms or required processing, preferably in the area being occupied by the uninjured passengers.

# APPENDIX 1. EMERGENCY PLAN GUIDANCE SUMMARIES AND RELATED INFORMATION

## SECTION 1. AIRCRAFT INCIDENTS AND ACCIDENTS

1. The major problems of response by airport fire departments include:

   a. Accidents such as those occurring near but not on the airport; or

   b. Accidents which occur without advance notification.

2. As indicated in AC 150/5210-11, Response to Aircraft Emergencies, announced emergency landings usually permit a more gradual response of fire trucks. In developing airport emergency plans, consider that the pilot is in a better position to determine what constitutes an emergency; whether to request that the fire department respond; or request that the fire department stand by. In responding to the "pilot's desires" as referred to in FAA Handbook 7110.8B, also consider that airport management may be able to furnish information regarding timing or the advantages of using a certain runway for an emergency landing, etc.

3. The following definitions are intended for use as the standard for communicating in regard to these services:

   a. "Respond" means that the fire trucks will be prepositioned at runway positions as required when an emergency is declared by an approaching aircraft or respond to the scene of an accident.

   b. "Standby" means that the airport fire trucks will be manned and maintained in a ready status in the fire station for situations such as an aircraft approaching with a minor mechanical difficulty.

4. Experience indicates that the conditions outlined below are among those most likely to occur to aircraft and passengers which will require response or standby of fire trucks or ambulance rescue equipment.

   a. Engine out; fire warning light; engine fire; engine overheat conditions; oil or hydraulic leak; faulty landing gear; hydraulic problems including low pressure or loss of pressure; rapid depressurization; emergency descent; loss of all generators;

power loss; rough engine or engine trouble; aeromedical evacuation; tire failures; test flights; control surface problems; noise, vibration, buffeting or loose parts such as doors, cowls, etc.; smoke in cabin or crew compartment; fuel supply low; radio out; structural damage (shattered windshield, etc.); and a bomb or suspected bomb aboard.

b. Personal emergency, heart attack, sudden severe illness, or injury of passenger.

5. WHEN AN EMERGENCY IS DECLARED BY AN APPROACHING AIRCRAFT, CAUTION SHOULD BE EXERCISED ON REQUESTING ADDITIONAL INFORMATION FROM THE PILOT DURING THE EARLY STAGES OF AN EMERGENCY. THIS WILL ASSURE THAT THE PILOT HAS HAD TIME TO COMPLETE HIS DUTIES RELATED TO THE EMERGENCY. IF ANY DOUBT ARISES DURING THE TRANSMISSION OF SUCH MESSAGES AS TO WHAT IS MEANT, THE FIRE DEPARTMENT SHOULD RESPOND TO THE RUNWAY DESIGNATED FOR THE EMERGENCY LANDING.

6. Other situations which may require fire department response include fuel spills, defueling or fueling problems, aircraft ground support equipment problems, and airport structural fires.

7. Arrangements should be made to admit a limited number of bona fide representatives of news media to the site of an emergency. Procedures for identification should be made so that only those persons authorized by airport management are in the vicinity of the accident. Accident sites should be roped off. A designated point should be established for the newspaper, TV and radio media. It should be suggested that the media work toward a mutual sharing of movies and photographs.

8. Announcements on radio or television that an aircraft is in difficulty may result in large numbers of people going, or trying to go, to the airport to witness the occurrence. In the past, this has resulted in traffic jams that deny passage of emergency vehicles, a heavier workload for police officers, and endangering the general public. Consideration should be given to seeking an agreement in the public interest to withhold announcements of this nature for at least 30 minutes so that emergency vehicles and personnel can take their assigned positions and control can be established at airport entrances.

9. In general, responsibility for news releases concerning an emergency should be that of:

   a. The representative of the airline involved.

   b. The senior military officer present or the public relations officer of the installation on which the aircraft is based for an accident involving a military aircraft or its cargo.

   c. The AEC representative present or public information officer at the AEC office involved, if the cargo is material that belongs to or is in the custody of the AEC or an AEC contractor.

   d. The airport management for emergencies not covered by the above.

## SECTION 2. BOMB INCIDENT PROCEDURES

1. Air Traffic Control (ATC) procedures have been established to assure that airport authorities, airline offices, etc., are notified of these incidents. These procedures are in FAA Handbooks 7110.8B, 7110.9B and 7110.10A. It is not intended that the ATC procedures be included in the airport emergency plans. However, they may be paraphrased so that representatives of other organizations can become familiar with the overall plan.

2. Emergency plans are expected to include a description of means to cope with bomb incidents through the use of airport security forces or by requesting assistance of nearby police. The U.S. Army can also lend 1/ the assistance of a small group of highly trained specialists when the local law enforcement agencies/departments do not have a bomb disposal capability or their capability is overextended. These Army representatives are known as Explosive Ordnance Disposal (EOD) specialists. They are located throughout the country at various Army installations. Although EOD specialists are trained to operate in a combat zone, their services are available to assist with explosives while they are stationed in the continental United States. This assistance might range in seriousness from the disposing of unserviceable dynamite to the more exacting task of disarming a homemade bomb. The assistance that EOD personnel may offer is governed by the Posse Comitatus Act of 1878. This Act, generally stated, prohibits Army personnel from assisting civil authorities in the execution of civil law enforcement. Rendering a bomb harmless is not in violation of the Posse Comitatus Act but searching the area is not permitted by the Act because the search can be construed as an act contributing to the enforcement of a law. As a result, EOD personnel should not be expected to assist with this task. Outlined below is the list of the Explosive Ordnance Disposal Control Centers which may be contacted for assistance. The detachment contacted can send the nearest specialists to the location needing assistance.

3. Continental United States Explosive Ordnance Disposal Control Centers (EODC).

   a. First U.S. Army EOD Control Center

      (1) Mailing Address: Fort Meade, Maryland 20755.

      (2) Telephone: 301 677-5183.

1/ Material in this paragraph was copied from the book, "Emergency and Disaster Planning", R. J. Healy, Copyright (c) 1969 by John Wiley & Sons, Inc. Reprinted by permission.

(3) Area of Responsibility: Connecticut, Delaware, Kentucky, Massachusetts, Maine, Maryland, Military District of Washington, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Virginia, Vermont, and West Virginia.

b. 547th Ordnance Detachment (EODC)

(1) Mailing Address: Fort McPherson, Georgia 30330.

(2) Telephone:

(a) Duty hours: 404 752-3004, 752-3055.

(b) Non-duty hours: 404 752-3113.

(3) Area of Responsibility: Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee.

c. 546th Ordnance Detachment (EODC)

(1) Mailing Address: Fort Sam Houston, Texas 78234.

(2) Telephone:

(a) Duty hours: 512 221-4646, 221-5308

(b) Non-duty hours: 512 221-5500, 221-2907.

(3) Area of Responsibility: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

d. 543rd Ordnance Detachment (EODC)

(1) Mailing Address: Fort Leonard Wood, Missouri 65473.

(2) Telephone: 314 368-3814, 368-4313.

(3) Area of Responsibility: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Nebraska, and Wisconsin.

e. 548th Ordnance Detachment (EODC)

(1) Mailing Address: Presidio of San Francisco, California 94129.

(2) Telephone: 415 561-4203, 561-4312.

(3) Area of Responsibility: Arizona, California, Colorado, Idaho, Montana, North Dakota, Nevada, Oregon, South Dakota, Utah, Washington, and Wyoming.

4. The guidelines below are intended for use in establishing procedures to cope with situations when there is reason to believe that a bomb has been or will be placed aboard an aircraft or in an airport building. The history of this form of sabotage is such that no report or rumor, however vague, can be ignored. Each case must be thoroughly investigated in a manner that will safeguard the public and minimize damage if a bomb is actually present. Care must be taken to observe the legal and constitutional rights of all persons affected by the procedures outlined in the plan. With regard to responsibility, the U.S. Department of Justice has investigative jurisdiction in cases involving airline sabotage; attempted sabotage, or bomb threats. It is also recognized that local municipal and state ordnance codes can also apply and be an effective tool in handling these situations--with complementary law enforcement agencies. Other areas of indicated responsibilities for typical functions are generally as shown below:

| Function | Responsibility |
|---|---|
| Searching luggage, safety of passengers. | Airline under auspices and observation of airport police. |
| Furnishing assistance to all airport units and coordinating plans. | Airport management. |
| Directing and moving aircraft with relation to other ground and air traffic. | FAA/ATC or the airport management where there is no air traffic control facility. |
| Protecting and preserving mail. | U.S. Postal Service. |

| Function | Responsibility |
|---|---|
| Express parcels and freight. | The express handling company. |
| Security, crowd control, notifying other organizations, and requesting assistance of explosive ordnance disposal specialists. | Airport security office and/or airport police department. |
| Rescue of persons where fire is involved, etc., and control of the fire as necessary for rescue. | Airport fire department. |

5. During aircraft bomb incidents it is suggested that passengers leave all personal belongings on the aircraft.

6. The primary details concerning communication procedures, bomb threats, baggage search methods, etc., are under the program administered by the FAA Office of Air Transportation Security (SE-1). As a matter of information, SE-1 also has responsibility for hijacking security along with the airlines, airport management, and the FBI.

## SECTION 3. STRUCTURAL FIRES

Emergency plans for structural fires are expected to include:

a. Means to protect persons from exposure to fires in terminal facilities, etc., including means for safe exit.

b. Arrangements to get fire fighting services from nearby municipalities where needed.

c. Using water tank trucks to support structural fire units.

d. Requesting ambulance services on a standby basis.

e. Assurance that fire fighting services are available to protect FAA and related government facilities on the airport. (This may be done as noted in paragraph b. above.)

f. Establishing procedures for cutting off power supply switches if fire occurs where high voltage installations are involved. Not only is this procedure necessary for safety, it reduces the possibility of damage to electrical equipment.

## SECTION 4. NATURAL DISASTERS

The information and material in this section are intended for use in airport programs to cope with the general hazards associated with storms.

a. One of the most common occurrences during storms concerns power interruptions. Such occurrences are especially common during hurricanes, etc., either by damaging generating equipment or transmission lines. Airports located in severe storm areas can take measures to insure minimum interruption to power supply, by either providing standby engine generators or dual sources of commercial power. For reasons of safety, when powerlines are damaged, assure that the power supply source is disconnected by authorized persons.

b. In programs for widespread power failures, consider the need of standby generators to assure that an airport can operate on a limited basis. Representative areas and facilities to consider in plans for continuous operation include: emergency alarm systems, certain lighting, passenger terminals; airline operations facilities; essential airport computer facilities; refrigeration units, etc. The standby generator needs may be filled by the use of auxiliary units. It is essential that drawings be available which show the airport electrical supply cables and distribution lines. It is also necessary to designate an employee to operate these systems in case of power outages. Additionally, consider airport water system deep wells, pumping stations, the water distribution lines, etc., as essential elements in maintaining capabilities to fight fires.

c. The posters on storms as illustrated on the following pages are examples of those which can be obtained for use on airports. Other posters suggested for use in airport safety programs, as appropriate, include "Hurricane Safety Rules" and "Tornado Safety Rules." They are attractively designed, contain precise information and are ideal for use on bulletin boards. These posters will be furnished free by National Oceanic Atmospheric Administration (NOAA) as a public service to airports. Make your requests by poster title from The Office of Public Affairs, National Oceanic Atmospheric Administration, Rockville, Maryland 20852.


**AN EARTHQUAKE STRIKES your area and for a minute or two the "solid" earth moves like the deck of a ship. What you do during and immediately after the tremor may make life-and-death differences for you, your family, and your neighbors. These rules will help you survive.**

**During the shaking:**

1 Don't panic. The motion is frightening but, unless it shakes something down on top of you, it is harmless. The earth does not yawn open, gulp down a neighborhood, and slam shut. Keep calm and ride it out.

2 If it catches you indoors, stay indoors. Take cover under a desk, table, bench, or in doorways, halls, and against inside walls. Stay away from glass.

3 Don't use candles, matches, or other open flames, either during or after the tremor. Douse all fires.

4 If the earthquake catches you outside, move away from buildings and utility wires. Once in the open, stay there until the shaking stops.

5 Don't run through or near buildings. The greatest danger from falling debris is just outside doorways and close to outer walls.

6 If you are in a moving car, stop as quickly as safety permits, but stay in the vehicle. A car is an excellent seismometer, and will jiggle fearsomely on its springs during the earthquake; but it is a good place to stay until the shaking stops.

**After the shaking:**

1 Check your utilities, but do not turn them on. Earth movement may have cracked water, gas, and electrical conduits.

2 If you smell gas, open windows and shut off the main valve. Then leave the building and report gas leakage to authorities. Don't reenter the house until a utility official says it is safe.

3 If water pipes are damaged, shut off the supply at the main valve.

4 If electrical wiring is shorting out, shut off current at the main meter box.

5 Turn on your radio or television (if conditions permit) to get the latest emergency bulletins.

6 Stay off the telephone except to report an emergency.

7 Don't go sight-seeing.

8 Stay out of severely damaged buildings; aftershocks can shake them down.

**U.S. DEPARTMENT OF COMMERCE**
**Environmental Science Services**

FIGURE 1. ILLUSTRATION OF POSTERS AVAILABE ON STORMS SUCH AS EARTHQUAKES.

# An Earthquake's Worst Killer May Come from the Sea

**TSUNAMIS are the so-called "tidal waves" generated by some earthquakes. When you hear a tsunami warning, you must assume a dangerous wave is on its way. History shows that when the great waves finally strike, they claim those who have ignored the warning.**

**Remember:**

1 All earthquakes do not cause tsunamis, but many do. When you hear that an earthquake has occurred, stand by for a tsunami emergency.

An earthquake in your area is a natural tsunami warning. Do not stay in low-lying coastal areas after a local earthquake.

3 A tsunami is not a single wave, but a series of waves. Stay out of danger areas until an "all-clear" is issued by competent authority.

4 Approaching tsunamis are sometimes heralded by a noticeable rise or fall of coastal water. This is nature's tsunami warning and should be heeded.

5 A small tsunami at one beach can be a giant a few miles away. Don't let the modest size of one make you lose respect for all..

6 The National Tsunami Warning Center does not issue false alarms. When a warning is issued, a tsunami exists. The tsunami of May 1960 killed 61 in Hilo, Hawaii, who thought it was "just another false alarm."

7 All tsunamis–like hurricanes–are potentially dangerous, even though they may not damage every coastline they strike.

8 Never go down to the beach to watch for a tsunami. When you can see the wave you are too close to escape it.

9 Sooner or later, tsunamis visit every coastline in the Pacific. Warnings apply to you if you live in any Pacific coastal area.

10 During a tsunami emergency, your local Civil Defense, police, and other emergency organizations will try to save your life. Give them your fullest cooperation.

**Stay tuned to your radio or television stations during a tsunami emergency — bulletins issued through Civil Defense and ESSA offices can help you save your life!**

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Price 10 cents; $5.50 per 100 copies. ESSA/PI 690029 1969

FIGURE 2. ILLUSTRATION OF SAFETY RULES AVAILABLE ON STORMS SUCH AS ON TSUNAMIS

## SECTION 5. CROWD CONTROL AND MEASURES TO PREVENT UNLAWFUL INTERFERENCE WITH OPERATIONS

1. Background. Crowds of people may assemble at the airport for one reason or another and, either inadvertently or deliberately, disrupt airport operations. The purpose and mental attitude of the assembly may vary considerably. There have been examples of friendly demonstrations triggered by the homecoming of successful athletic teams. There may be other circumstances in which both purpose and attitude are less friendly; for instance, a period of serious international tension may be characterized by deliberate attempts to interfere with operations or to commit sabotage.

2. Coordination with Public Agencies. Plans for crowd control, and for control of other emergencies that may arise as a result of such assemblies, should be coordinated with other public agencies whose services may be required. Consider the need for assistance by local off-airport fire and police departments, the sheriff's office, and the state police. Coordinate with the Governor and the Adjutant General of the State National Guard for National Guard operations in most extreme cases.

3. Intelligence. The assembly of large crowds rarely occurs so spontaneously that there is no advance warning or time to take action. The arrival or departure of popular public figures may attract crowds who will, in most cases, be good-natured, and generally easily controlled. The arrival or departure of more controversial persons may draw groups that are hostile and more prone to disorderly conduct. In times of civil disorder or international tension, airport management should be especially alert to both open and secret action by dissidents. While trained saboteurs will operate with the greatest secrecy, untrained dissidents usually talk, threaten, or boast, and their plans either become known in detail or can be estimated. Unless full cooperation of the news media is obtained, an accident on the airport may attract crowds but, generally speaking, there should be no difficulty in keeping crowds behind police lines.

4. Police Responsibility. The fundamental responsibility for crowd control rests with police forces. The basic planning should be done by the police, although the airport manager or his designated representative should retain the authority to implement the plan.

When and if it becomes necessary to use the armed forces of the state or of the United States to suppress disorder, supervision of the activity will remain with the civil authority.

5. Use of Force. In the case of friendly gatherings, persuasion may be more effective than the display of force, which will probably serve only to antagonize group members. Clearing or control action should be taken firmly but in a friendly spirit. In the case of hostile gatherings, the decision to use any degree of force must rest with the police authority and must be based on good police practice. If force is used, it must be the minimum necessary to bring about the desired control or dispersal of the group, and must be applied impartially and objectively. Often a mere show of force will suffice without action.

6. Physical Security Measures. Such measures are specified to guard against the inadvertent entry of persons upon the operational surfaces of an airport.

   a. Fences will serve to keep out gatherings of friendly people coming to see the arrival or departure of a popular figure; such crowds will normally use entrance roads and pass through entrance gates. Boundary type of fencing, consisting of a chain link with barbed wire at the top or steel rodded type fences will stop all but the most determined; but they are not considered completely intrusion-proof. The more vital and sensitive installations, such as power vaults, fuel tank farms and communications centers, may require security fences supplemented by guards or alarm systems.

   b. Lighting should be provided around buildings housing critical facilities. Lighting at entrance gates should be bright enough to permit identification of persons and inspection of identification cards. Install controls and power sources so they are inaccessible to unauthorized persons. Consider the use of floodlights mounted on airport emergency or service vehicles for use in patrolling fences in times of disorder.

   c. Burglar Alarm System Specifications have been developed by various manufacturers and listed with recognized testing laboratories. For obvious reasons, the information on burglar alarm systems is closely controlled.

d. Other Security Measures include means of blocking entry by underground service ducts, sewers, or tunnels.

e. Suspension of air operations may become necessary. If it becomes apparent that a crowd cannot be contained, airport management should close any parts of the airport as may be necessary to maintain a safe operation. It will be the responsibility of the FAA air traffic control facility or the flight service facility on the airport, if any, to take appropriate action to ensure that flow control to the airport is initiated or air traffic is suitably diverted to other airports. In the absence of an FAA facility, this responsibility should be assumed by management. Contact the FAA sector chief or some other designated FAA maintenance representative during crowd control situations to assure the continual operation and reliability of FAA facilities and that these facilities are protected during such periods.

f. Lock gates in critical areas and post guards at the gates. Maintain security over gates between the terminal areas and loading ramps and allow passage of authorized persons, such as airline personnel, owners or pilots of general aviation aircraft on the field, airport staff, security or fire fighting personnel, passengers, etc. Establish control of automobile parking lots and the movement of pedestrians from parking lots to the terminal building. In times of tension, it is also advisable to consider establishing regular patrols of the perimeter fences.

g. Evacuation of aircraft may become advisable under certain circumstances. The airline representatives should determine when this is to be done. Fixed base operators should make similar plans for aircraft under their cognizance. Other owners of general aviation aircraft may wish to consider agreements with fixed base operators to either evacuate their aircraft or to move them to less accessible portions of the airport. (Places for evacuation should be planned in advance.)

h. Emergency medical services are suggested for all public functions. Even in the most friendly gathering, people are sometimes injured inadvertently, depending on the size of the crowd and the area to which the crowd is confined. Alert medical authorities and emergency medical technicians and have ambulance service available on a standby basis.

## SECTION 6. RADIOLOGICAL INCIDENTS

This section covers precautionary measures to take in case of damage to radioactive materials shipping containers and accidents involving aircraft carrying nuclear weapons.

a. Actions and Safety Procedures. If a package containing radioactive materials breaks and spillage occurs, the possible spreading of contamination by vehicles or persons going through the area are primary problems. If radioactive material is disturbed, or if winds or a thermal column from an aircraft fire are present, the radioactive material could be carried some distance. Procedures to be followed:

(1) Keep unauthorized persons out of the area by establishing a cordon around the aircraft.

(2) If radioactive material contamination is suspected, keep all persons except rescue crews out of the area. Require that rescue crews wear protective clothing and use self-contained breathing apparatus.

(3) Close doors and windows of nearby buildings.

(4) Do not delay rescue operations because of the possible presence of radioactivity. In general, use conventional rescue techniques in such situations.

b. AEC Teams. If the radioactive material package is found unbroken, the problem is over as far as radiation contamination is concerned. Such material should be left alone and not moved after an incident except where it is necessary to permit vehicles or personnel access to the incident area. The AEC furnishes a courier when radioactive material is AEC-owned, or to provide protection for material during shipment. In these cases, the courier has overall responsibility for security of the material, notification procedures, etc. Special AEC teams are trained in radiological monitoring, decontamination, and handling of radioactive materials. If first aid is needed, it should be kept to a minimum pending arrival of the AEC teams with physicians trained in radiation medicine. These physicians either treat such casualties or give advice on treatment.

c. Radiation Accidents - Nuclear Weapons. In an aircraft accident involving a nuclear weapon, several hazards may be present that do not occur in the commercial shipment of radioactive materials. Blasts of varying degree may occur as a result of the detonation of the high explosives in the weapon; toxic or caustic fumes may be given off by burning high explosives--such a detonation would scatter the radioactive material contained in the nuclear weapon; and if the radioactive material such as plutonium, burns in an aircraft fire, radioactive particles may be carried downwind with the smoke. Detonation of the high explosives and the presence of toxic or caustic gases are things with which the well-trained fire fighter should be familiar. As a matter of information, in case of emergency landings, military procedures require that the aircraft commander notify airports if the aircraft has nuclear cargo on board. For example, these notification procedures indicate:

(1) That the cargo is dangerous (which can be high explosive bombs, nuclear weapons or components, or that the cargo may explode when exposed to fire or impact).

(2) The general location of the cargo, estimated safe time for fire fighting if explosives become enveloped in flame, and other specific precautionary requirements. For instance: number one engine out; four personnel--all forward; have dangerous cargo--forward section of cargo compartment; isolated parking required; if explosives become enveloped in flames, detonation may be expected after 10 minutes; withdrawal distance is 2500 feet; apply emergency procedures accordingly; during rescue operations, personnel are expected to wear protective clothing and self-contained breathing apparatus.

d. Notification. In the event of incidents involving radioactive materials, radiological emergency assistance can be requested from any AEC office. In addition to AEC assistance capabilities, the AEC response may include emergency personnel and equipment from other Federal and state agencies coordinated under an Interagency Radiological Assistance Plan administered by the AEC. Federal agencies participating in this interagency plan include the Department of Transportation, Department of Defense, Department of Commerce, Department of Health, Education, and Welfare, the National Aeronautics and Space Administration, and the Environmental Protection Agency.

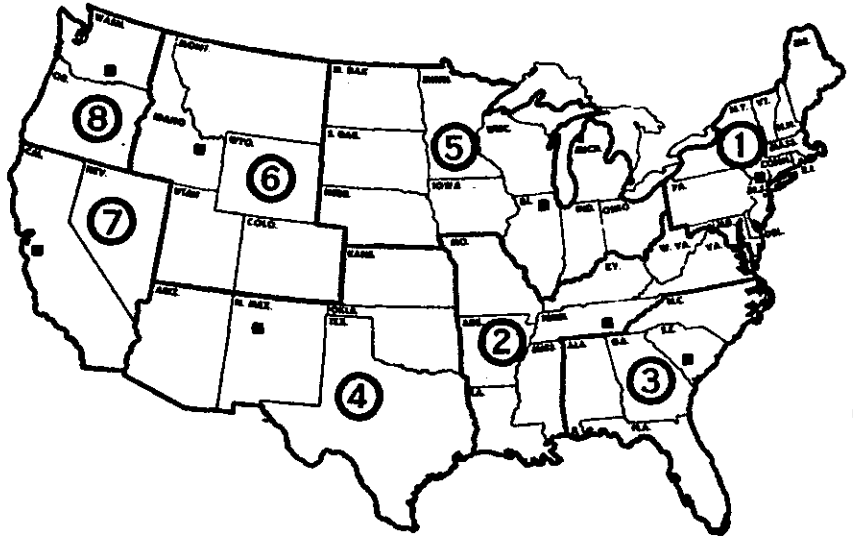
e. If such an aircraft crashes or spillage of radioactive materials occurs, notify the nearest U.S. Atomic Energy Commission unit as shown on the next page and ask for radiological assistance.

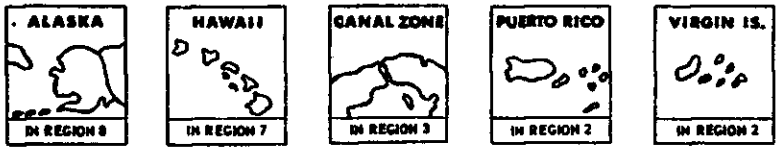
f. For all accidents believed to involve nuclear weapons and/or military aircraft, notify the AEC/DOD Joint Nuclear Accident Coordinating Center, Albuquerque, New Mexico (Telephone: Area Code 505 264-8279.)

g. It will be helpful to the persons called upon for advice if the individual calling for assistance will give all the information he can regarding the nature of the incident and identification of the radioactive material involved.

U.S. ATOMIC ENERGY COMMISSION

# REGIONAL COORDINATING OFFICES FOR RADIOLOGICAL ASSISTANCE AND GEOGRAPHICAL AREAS OF RESPONSIBILITY






| | REGIONAL COORDINATING OFFICE | POST OFFICE ADDRESS | TELEPHONE for ASSISTANCE | D D D AREA CODE |
|---|---|---|---|---|
| 1 | BROOKHAVEN AREA OFFICE | UPTON, L. I. NEW YORK 11973 | 989-1000 | 212 |
| 2 | OAK RIDGE OPERATIONS OFFICE | P. O. BOX E OAK RIDGE, TENNESSEE 37830 | 483-8611, Ext. 3-4510 | 615 |
| 3 | SAVANNAH RIVER OPERATIONS OFFICE | P. O. BOX A AIKEN, S. C. 29801 | N. AUGUSTA, S.C. 824-6331, Ext. 3333 | 803 |
| 4 | ALBUQUERQUE OPERATIONS OFFICE | P. O. BOX 5400 ALBUQUERQUE, NEW MEXICO 87115 | 264-4647 | 505 |
| 5 | CHICAGO OPERATIONS OFFICE | 9800 S. CASS AVE. ARGONNE, ILLINOIS 60439 | 739-7711 Ext. 2111 duty hrs. Ext. 4451 off hrs. | 312 |
| 6 | IDAHO OPERATIONS OFFICE | P. O. BOX 2108 IDAHO FALLS, IDAHO 83401 | 526-0111 Ext. 1515 | 208 |
| 7 | SAN FRANCISCO OPERATIONS OFFICE | 2111 BANCROFT WAY BERKELEY, CALIFORNIA 94704 | 841-5121 Ext. 664 duty hrs. 841-9244 off hrs. | 415 |
| 8 | RICHLAND OPERATIONS OFFICE | P. O. BOX 550 RICHLAND, WASHINGTON 99352 | 942-1111 Ext. 6-5441 | 509 |

Revised: September 1971

FIGURE 3. REGIONAL TELEPHONE LIST FOR REQUESTING RADIOLOGICAL ASSISTANCE FROM THE ATOMIC ENERGY COMMISSION

## SECTION 7. MEDICAL SERVICES

1. Emergency planning by all airports regarding medical aspects may be as varied as airports. Factors which should be given full consideration include the following:

   a. Geographical location relative to the local community's business, residential, hospital and ambulance service locations.

   b. Volume of non-traveler visitors and guests per day.

   c. Proximity of large bodies of water.

   d. Proximity of military facilities - size.

   e. Status of local community medical resources (hospital, clinics, numbers of physicians, nurses, emergency medical technicians, etc.

2. Emergency planning for medical response should be designated to provide quick, safe, efficient and controlled response in the case of one or two seriously injured or ill individuals and designed to produce a fast, effective, and controlled process for responding to over 100 major casualties. There should be no attempt on the part of any airport, regardless of size or volume of activity, to establish ON SITE all the resources required in incidents of mass casualty. Nonetheless, the concentration of large numbers of people on airborne aircraft and on the ground creates an environment subject to potential major disaster. Thus it requires each airport to establish a mechanism for obtaining from outside the airport the required medical emergency resources should the need arise.

3. Several major items deserve close attention in developing the emergency medical plan. High on the list is the delegation of absolute responsibility for coordinating medical services to one individual. This person must have experience in establishing and managing emergency medical care systems and preferably would be a physician or surgeon with some aviation medicine experience. In the absence of a full-time surgeon, the responsible official should have available to him a consultant surgeon who provides the required professional input and monitoring.

4. Effective methods of communications for emergency medical services are essential. Inaccurate or missing information concerning numbers of sick or injured, hospital bed availability, ambulance requirements, and patient destination when leaving the accident site, are only a few examples of areas in which lives are endangered simply because of a communications breakdown.

5. In addition to the above planning factors, give consideration to:

   a. Using air medical helicopter and/or fixed-wing evacuation systems where available. In this connection, there are military helicopters for Search and Rescue (SAR) or local base rescue missions at some 130 different sites in the country, mostly around the Nation's coastal perimeters and southern border. Helicopters are based at other military bases for training, logistics, and mission operations. A SAR helicopter unit maintains constant readiness and spends the greater part of its time standing by for calls. Flying hours devoted to SAR seldom exceed 25 percent of the total hours flown. Consequently, some of these units are able to take on additional responsibilities without any increase in facilities or personnel. They are well trained in SAR, and the recovery of the highway ill or injured presents few problems not found in SAR missions. In actual practice, military rescue helicopters respond to a variety of emergencies and do not confine themselves strictly to military distress operations. For example, responses are regularly made to boating mishaps, lost hunters and fishermen, civilian aircraft crashes, medical evacuation from remote locations, etc. Also the Air National Guard has about 400 helicopters in the country and their use for emergency medical evacuation offers considerable promise.

   b. The emergency use of other vehicles available on the airport, e.g., buses and trucks.

   c. Local plans for obtaining Disaster Packaged Hospitals.

   *d. Withdrawn under Change 1. *

e. The idea of predesignating a hangar, terminal building or other area which could be cleared quickly and used for the collection of casualties for life-saving and sustaining procedures prior to their release or movement to hospitals.

f. The training of select personnel in the use of emergency equipment and in emergency medical care procedures.

## SECTION 8. EMERGENCY ALARM SYSTEMS

1. Systems for emergency notification and operations are expected to be provided on the broad basis of functions. At airports having control towers, the system should be built around radio equipment and frequencies authorized for use by the tower. On airports having no air traffic control facilities, the system may be built around telephones. In plans for additional communications equipment, give consideration to making the new units compatible with existing equipment. (Reference AC 150/5210-7, Aircraft Fire and Rescue Communications.)

2. Establish procedures for notification on the basis of a primary alarm network (or circuit) and a secondary system. For instance, where the airport has an air traffic control facility, a security force, medical services, etc., the primary network could include notification of these units plus airport management. The airport management staff could then actuate the secondary system (presumably telephone) to notify the air carrier office, the coordinator for mutual assistance, the fixed-base operator, etc.

3. Quite often, the emergency communication network will include a local central dispatch center or a "red" telephone in the emergency room of the local hospital, the structural fire house, ambulance and rescue services and police station.

4. At many large airports, a coded sentence is used over the public address system to page the airport manager, operations manager, etc., in case of emergency. Example: Mr. Greenglass, there is a message for you at the information counter of Apex Airlines.

5. Frequently, the control tower will use light signals instead of radio to give direction to ground vehicles. These signals must be obeyed when crossing runways or other controlled areas:

| Light Signal | Meaning |
|---|---|
| Steady red | STOP |
| Steady green | Cleared to proceed |

6. Communications Programming - Cost Estimating Information 1/

a. Radio - Transistorized - Tone-coded

| | |
|---|---|
| VHF Base complete | $2,850 |
| Mobile Unit | $1,200 |
| Hand Unit | $1,000 |
| Pocket Pager | $ 375 |
| Receiver | $ 200 |

b. Telephone

| | |
|---|---|
| Installation | $20 |
| Circuit Charge | $10/month |

c. Public Address $500 minimum

d. Siren or Airhorn System $1,500 - $4,000

7. Practicing radio discipline will often permit multiple-unit use of radio frequencies. This means that when one unit has a "call," the other units observe radio silence. It does not mean the use of involved code signals. Messages should be given in a brief, business-like manner. (Think of what you want to say before talking or keying the mike button.)

1/ Source: FAA Report No. AS-71-1, as referenced in AC 150/5200-16, Announcement of Report AS-71-1 "Minimum Needs for Airport Fire Fighting and Rescue Services" dated January 1971.

## SECTION 9. CONTROL TOWER FUNCTIONS RELATING TO EMERGENCY ACTIONS

1. The FAA Air Traffic Service has instructed tower and flight service station (FSS) chiefs to develop operational plans to cover their functions in handling aircraft emergencies.

2. At airports having both a tower and FSS, the tower chief will be the primary contact. Established and approved procedures are required to be defined in a letter of agreement with the airport manager. These procedures are based on the presence of either or both of these FAA facilities; the actual plan is expected to be tailored to fit the individual airport.

3. Tower or FSS personnel will notify the aircraft fire and rescue unit of messages concerning declared aircraft emergencies, when an emergency occurs or is believed about to occur. The following is an example of information that should be transmitted:

   a. Aircraft identification, e.g., "Cessna 1000 or November 1000."

   b. Information received from the pilot about the nature of the emergency.

   c. Runway to be used for landing.

   d. Estimated touchdown time; or the grid location of the crash, occurrence, etc.

   e. Number of occupants, passengers, and crew.

   f. The quantity of fuel on board.

   g. Presence of hazardous cargo or explosives.

## SECTION 10. CARE AND SERVICES FOR UNINJURED AIRCRAFT PASSENGERS

*

1. Background. Indications are that during a period immediately following an accident there is a need for coordinating the efforts of a variety of organizations to provide services for these passengers. Such organizations include airport management, the airlines and where applicable, the Federal Inspection Services involving the U.S. Customs Service, Immigration and Naturalization Service, Agricultural Quarantine-Inspection Service and the Public Health Service.

2. Under the overall direction of airport management, the plan for care and services in such situations should include consideration of the items outlined below.

   a. Reserving (at the time) an area or areas in the terminal or other facilities (coordinated with customs) where such passengers can be made comfortable and provided with special assistance such as telephone service and with accommodations as may be feasible under the circumstances.

   b. At the accident site, assisting the passengers in assembling in one general area - away from the aircraft, for further processing.

   c. Obtaining means of transport for the passengers from the accident site to the terminal, etc.

   d. Assuring that security is maintained at the accident site and in the areas occupied by these passengers.

   e. Considering the need and the right of privacy of individuals during a period of adjustment following such a traumatic experience.

   f. Providing access to personal articles and baggage (through customs) as soon as possible, or the furnishing of blankets until baggage or personal clothing items can be obtained from the aircraft.

   g. Assistance by representatives of customs, immigration, agriculture or public health services where applicable, in filling out clearance forms or required processing, preferably in the area being occupied by the uninjured passengers.

h. Obtaining food or beverages if prolonged delay is involved during the processing of passengers, including necessities such as baby food.

i. Assistance by the airlines in making further travel arrangements or arranging for motel/hotel accommodations if desired.

j. Observation of passengers by medical service personnel until it is relatively certain that they have passed a period when delayed shock may occur. *

TABLE 1. GENERAL CHECKLIST

| Functional Area | General Requirements Actions | Responsibility/Designations for Performance and Governmental Agency/ Element Participation | Established Programs/ Reference Material | Airport Emergency Assignments |
|---|---|---|---|---|
| a. Aircraft incidents and accidents * | Establish notification procedures; plans to respond to and to cope with occurrences; establish alert and standby procedures for airport fire fighting, ambulance and rescue services; provide care for any injured passengers; provide services for uninjured passengers; and activate mutual assistance plan if needed. (Reference Appendix 1, Sections 1, 7, and 10.) | FAA ATC/FSS personnel monitor communications, relay messages, and establish points of contact; airport management to establish means and procedures for overall notification and receipt of messages, and for response to emergencies. Units to be notified include: airport management; airport operations; fire department; emergency medical service; the airport security office; the airline; the NTSB; and the Federal Inspection Services involving the U.S. Customs Service, Immigration and Naturalization Service, Agricultural Quarantine - Inspection Service and the Public Health Services on international airports (airports of entry). | FAA Handbooks 7110.8B (Terminal Air Traffic Control), 7110.9B (En Route Air Traffic Control), 7110.10A (Flight Services), 7210.3 (Facility Management), and 8020.4A (Aircraft Accident Notification Procedures and Responsibilities). AC 150/5200-15 (Availability of the International Fire Service Training Association's Aircraft Fire Protection and Rescue Procedures Manual); also procedures established for emergency alarm system; and Order 8430.6A, Air Carrier Operations Inspectors Handbook, Appendix 3, Air Carriers Operations Bulletin No. 68-3, "Care of Surviving Passengers, Following Air Carrier Accidents." | * |

*The extent of material added in this change.

h. Obtaining food or beverages if prolonged delay is involved during the processing of passengers, including necessities such as baby food.

i. Assistance by the airlines in making further travel arrangements or arranging for motel/hotel accommodations if desired.

j. Observation of passengers by medical service personnel until it is relatively certain that they have passed a period when delayed shock may occur. *