



Airport Plan to Meet Emergencies Influenced By Locale and Culture

Each airport must develop its own emergency response plan, which is made more complex by increased air traffic, crowded terminals and remote facilities. A well-defined and properly tested plan involves the local community served by the airport.

by

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A variety of factors have increased the challenges to airports to prepare for emergencies, to remain operational during emergencies and to provide support after emergencies.

Worldwide aircraft accident statistics have shown that an aircraft accident is most likely to occur on or near an airport, but the likelihood of an accident decreases as the distance increases from the takeoff or landing. Nevertheless, a new generation of extended-range high-technology aircraft also has increased the possibility that many airports must be prepared to accept aircraft making emergency diversions during flight.

Other airport emergencies include terrorist attacks, bomb threats and natural disasters such as earthquakes and floods.

In recent years, especially since airline deregulation, airport terminals have become larger and more complex to accommodate large-capacity aircraft, increased aircraft traffic and a growing number of passengers. Aircraft

ramps and docking facilities at some airports have become heavily congested, especially at peak times of operation. Meanwhile, aircraft runways and automobile parking areas have become larger and more remote from terminal areas.

Thus, each airport must develop its own emergency response plan to cope with a variety of contingencies, influenced by its particular locale and culture. The plan must be practical and comprehensive, and should be proven during operational drills. Each airport has an obligation to develop an emergency response plan, especially in light of litigious consequences, and airline managements should recognize the corporate benefits of ensuring that airports have an emergency response plan.

Deregulation has shifted the responsibility of airport operations from centralized government to more autonomous airport-specific authorities and private companies. Because such enterprises operate for profit, it is important to use in-place resources to prevent "safety-is-too-expensive" excuses when preparing an airport emergency response plan.

Some airport authorities mistakenly believe that an emergency response plan requires huge outlays of money for equipment and for emergency expertise, thus making such a plan too expensive to implement. An airport, for example, should not be required to buy or store extensive salvage equipment if the authorities can determine where such equipment can be obtained in nearby communities. A variety of emergency-related expertise will be found by polling the personnel who are employed at the airport.

An airport emergency response plan cannot be formulated in isolation; it must include all the emergency medical services, hospitals, fire departments, law enforcement agencies and other support resources, such as the Red Cross, religious groups and community action groups, from the local communities that surround the airport. These resources' training and experience can augment the airport's own crash/fire/rescue operations, air traffic control, boarding security, immigration, customs, local and state police, and the resources of each airline.

The most successful plan is one developed by those who are going to implement it and use the equipment at hand. The real cost is in time, effort and cooperation.

After identifying the resources that might be required in various emergencies, the airport authority should support the formation of a committee that includes representatives from these resources. To prevent the committee from becoming unwieldy, several subcommittees can be created to develop specific parts of the emergency response plan. The committee would consider the various proposals put forward by the individual subcommittees and then assemble a final plan for consideration by all participating resources.

Planning should include identification of all factors that could influence the effectiveness of a response to a particular emergency. Organizational authority and responsibility must be defined for developing, testing and implementing a plan.

Training must figure prominently in planning, and resources must recognize and understand not only their own responsibilities but those responsibilities of allied organizations.

An emergency response plan should be designed to ensure that there is:

- Orderly and efficient transition from normal to emergency operation;
- Delegation of airport emergency authority;

- Assignment of emergency responsibilities;
- Authorization by key personnel for actions contained in the plan;
- Coordination of efforts to cope with the emergency; and,
- Assurance of continuity of aircraft operations as soon as possible.

The airport authority must establish a mutual aid agreement with each resource that defines responsibilities and/or liabilities before a real emergency occurs. These should include the following:

- Clarification of the political and jurisdictional responsibilities of each resource that aims to prevent unnecessary problems;
- Creation of a command authority with a single on-scene coordinator and designated alternates;
- Organization of transportation under a designated coordinator;
- Determination of the legal authority and liability of all cooperating personnel;
- Arrangement for insurance coverage and payment for emergency personnel; and,
- Plans for the use of portable and heavy rescue equipment from local community sources.

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The foundation of a successful emergency response plan is based on command, coordination and communication, all of which are focused from the airport emergency operations center.

The emergency operations center supports and coordinates operations from on or near the airport. Leaders of cooperating resources assemble at the center to receive and disseminate information and to make decisions about emergency operations.

The center must have adequate communications equipment and sufficient personnel to maintain communications with all the resources that are involved in the operation.

Moreover, the emergency operations center is the primary supporting authority to the on-scene coordinator, who is usually at a mobile command post, which is critical to continuity of command, at the primary emergency site.

Communication is often the most important element in the successful implementation of an emergency response plan. Experience has shown that a breakdown in communication can have disastrous consequences. For example, reliance on telephones for initial notification is common, and in many areas this is the only practical method of initial notification. But is there a backup communication plan in the event that telephone communication is not possible?

In some emergencies, it may not be possible or practical for vehicles from various resources such as fire departments, police and ambulance services to proceed directly to the emergency location. Thus, it is essential that the emergency response plan include provisions and procedures for alternate rendezvous locations.

In an aircraft accident for example, effective rescue capability is paramount, regardless of the causes or effects of the accident. An emergency response plan must provide unambiguous instructions and guidelines to ensure the most effective response to the accident.

Actions will change as an emergency unfolds, and while the airport fire chief (or his designated deputy) might arrive at the accident site first and become the on-scene coordinator, the chief might only serve in that role until the emergency response plan's designated on-scene coordinator arrives at the accident site.

Airport personnel will likely be among the first persons to reach the scene of an accident and how they respond will help determine the success or failure of the operation. To succeed, airline personnel must have taken part in developing the emergency response plan, because their understanding of aviation operations is critical to developing an emergency response plan for an aircraft accident.

Off-airport accidents in adjacent mountains, forests or water can present unique and difficult logistical problems, so plans must allow for operations in such areas. This might require a study of the availability of special-service vehicles such as boats, helicopters and off-road firefighting equipment.

The availability of specialized resources such as underwater divers, mountain rescue squads and ski patrols may also need to be assessed, including the capability to respond to events involving nuclear radiation, fuel or hazardous chemicals.

After-emergency activities may not have as much urgency as the preceding events, but transitions of authority

and responsibility at the scene need to be thoroughly discussed and planned in advance. Some personnel who have had a direct operational assignment in earlier stages may subsequently be required to remain on the scene and assume a supportive role, e.g., police/security personnel. It is necessary to plan for these supportive services and to consider problems related to restoring or maintaining other services to permit continuation of normal airport/aircraft operations.

The airport emergency response plan should be tested each year with full participation of all involved resources, which will help to ensure that the plan remains viable. The operational drill should be followed by a thorough debriefing in which all participating resources should critique and analyze the exercise.

Sometimes requirements for an emergency response plan are determined to be impractical during an actual emergency or a drill. It is important that provisions be made to update the emergency response plan to correct deficiencies and to ensure that participants are familiar with their respective responsibilities.

The consequences of a major airport emergency can be devastating in human and material terms, but a well-conceived emergency response plan can help to avoid compounding a tragic event.♦

Experience has shown that a breakdown in communication can have disastrous consequences.

About the Author

George A. Oldfield is safety manager for Air New Zealand Ltd., a position he has held since 1978. He first joined the airline as a flight safety officer after retiring as a squadron commander from the Royal New Zealand Air Force, in which he served 24 years. Oldfield holds a commercial pilot's license (CPL) with helicopter and fixed-wing instructor ratings.

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Disaster Response Planning Workshop for Business Aviation



FLIGHT SAFETY FOUNDATION & THE VANALLEN GROUP

Atlanta, Georgia, U.S.
May 18-19, 1994

For more information contact J. Edward Peery, FSF.

AIRPORT OPERATIONS

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Subscriptions: US\$60 (U.S.-Canada-Mexico), US\$65 Air Mail (all other countries), six issues yearly. • Include old and new addresses when requesting address change. • Flight Safety Foundation, 2200 Wilson Boulevard, Suite 500, Arlington, VA 22201-3306 U.S. • telephone: (703) 522-8300 • telex: 901176 FSF INC AGTN • fax: (703) 525-6047

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