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## ***A MODEL FOR DEVELOPING AN AIRPORT SECURITY PLAN***

Atef Ghobrial and Ken Fleming

In order to protect passengers, staff, airlines, aircraft, and property, airports should develop, implement, and maintain a system security plan. The plan should be a complete guide for establishing and maintaining a comprehensive security program for the airport system. Increased security should be accomplished through the use of a system approach, with both proactive and law enforcement activities clearly outlined in the plan. This paper presents a model for developing an airport security plan.

### **INTRODUCTION**

Not long ago, security problems at airports were confined to conventional crimes associated with other transportation modes: vandalism, theft, assault and battery, trespassing, and facility damage. Since the late 1960s, airports have also become the focus of other crimes, such as terrorism, hijacking, sabotage of targets in the air and on the ground, and overt acts of aggression. Between 1963 and 1971, the Assembly of the International Civil Aviation Organization (ICAO) called three major meetings for the purpose of drafting International Conventions on the security of civil aviation: The Tokyo Convention (1963), the Hague Convention (1970), and the Montreal Convention (1971). In 1974, a set of standards and recommended procedures was adopted by ICAO. The document was published as Annex 17 to the original Chicago Convention. The document is titled "Standards and Recommended Practices—Security—Safeguarding Civil Aviation Against Acts of Unlawful Interference."

In 1969, the Federal Aviation Administration (FAA) established a Task Force on Deterrence of Air Piracy. In 1971, the FAA issued notices of proposal rule-making for the landmark revisions of the airport and airline security measures. One notice proposed the issuance of Part 107 of the Federal Aviation Regulations to give to airport operators the responsibility for providing protection against unauthorized access to air operations areas. The second notice proposed a new Section 538 to FAR Part 121, which required each scheduled carrier to develop and implement a security program designed to prevent or deter the carriage aboard aircraft of sabotage

devices or weapons. The new Public Law 99-83, the International Security and Development Cooperation Act of 1985, established an explicit statutory basis for the FAA's Federal Air Marshal program. The Public Law 99-83 was enacted in August 1985 to direct the Secretary of Transportation to assess the effectiveness of security measures at foreign airports served by U.S. carriers, or from which foreign air carriers serve the United States, and those airports that pose high risk to international travelers. In 1989, the FAA issued its final rule requiring foreign air carriers to submit their security programs (in writing and in English) to the FAA for acceptance by the Administrator.

### **GENERAL GUIDELINES FOR DEVELOPING AN AIRPORT SECURITY PLAN**

In order to protect passengers, staff, airlines, aircraft, and property, airports should develop, implement and maintain a system security plan. Increased security should be accomplished through the use of a system approach with both proactive and law enforcement activities clearly outlined in the plan. A system is composed of people, property, environment, and procedures that are integrated to perform a specific operational function in a specific environment. The elements of a system are diverse and interactive. A successful airport security plan should integrate and coordinate the functions of each element in the system.

The airport security plan is a well-defined program that describes the actions to be taken to protect airlines, passengers, staff, aircraft, and property against terrorist or criminal acts. Security plans should not be viewed as a set of theoretical procedures to follow, rather they

## *A Model for Developing an Airport Security Plan*

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should define the objectives of the program and give enough flexibility to deal with particular events. Because timing, situations, or locations of unlawful acts cannot be forecast, it is necessary to leave the detailed course of actions to those persons in charge of airport security. The main objective is to ensure that the actions taken to safeguard the facility are coordinated with the overall plan.

In developing a security plan, lead security personnel at the airport should consult with the FAA, the ICAO, and other security professionals, and should review security plans at similar airports. Next, authors of the security plan should collect all of the appropriate security-related information within the airport.

This information includes the location of the airport, the type of traffic, the passenger mix (domestic and international), the resources of the airport, and the capabilities of the different groups overseeing airport security.

The next step is to write the specific sections of the plan. There is no standard format or layout; however, security personnel should be able to find all references to their roles and responsibilities easily and quickly. The outline can be adjusted as appropriate to suit the circumstances of a particular airport.

### **DEVELOPING AN AIRPORT SECURITY PLAN**

The need for developing an airport security plan has been emphasized in many aviation management books (Moore, 1991; Phipps, 1991; Wells, 1992). This paper provides a model for developing an airport security plan. It presents an outline of an airport security program followed by a description of the different sections comprising the plan.

#### **Opening Pages to the Airport Security Plan**

The opening pages of the security plan should include acknowledgment, a foreword, and a management policy statement. The author should acknowledge those professionals, local and state and federal agencies, and international organizations that contributed to developing the security plan. The foreword section should provide a clear understanding of how the plan is expected to serve as the dynamic structure for implementing an effective system security program. The opening pages should also contain a management

directive/policy statement that establishes full commitment to security. The plan also directs responsibility for security to an individual or a group and indicates full support for them. The security classification and copy number should appear prominently at the top of each copy of the document.

#### **Introduction to Airport System Security**

##### *Purpose of Airport Security Plan*

An airport security plan is of limited value unless it fully defines and implements a security program. The plan should emphasize identifying potential threats and areas of vulnerability, and developing proactive, prevention-oriented approaches that will minimize them. This threat and vulnerability management, as applied to all aspects of people, property, procedures, and environment of the airport, is known as "system security."

##### *Goals, Objectives and Tasks of the Plan*

The primary goal of the plan, of course, is to implement a program that ensures system security. Broad yet airport-specific objectives supporting that goal should be identified; each objective should include a set of reasonable and attainable tasks to achieve that objective. For example, the objective of a plan could be to ensure the security of an airport or an airline against unlawful acts at maximum cost-effectiveness.

##### *Scope of the Plan*

This section should summarize the intent of the plan, and list personnel involved and their functions, and what organizations are affected.

#### **Description of the Airport System**

##### *Organizational Structure*

A brief description, preferably with a diagram, of the organizations of the airport, including security committees.

##### *Operating Environment*

Detailed information about flights by type (domestic and international), current and projected flight schedule, estimated number of passengers, types of airlines (domestic and international), political systems of countries whose airlines operate at the airport, high-risk flights and so on.

This section should also include a brief description of the airport, including configuration, ground access, terminal facilities, and airside layout.

*Current Security Conditions*

A summary containing the current security breaches, threats, and likely forms of terrorist or criminal interferences. Examples include assault and battery, bomb scares, vandalism, sabotage, and terrorism.

*Existing Security Capabilities and Practices*

A summary of the major proactive methods, procedures, devices, and systems that currently exist to prevent or minimize security breaches. These may include committee work, analysis, personnel training programs and passenger coaching, and proactive security devices.

**Management of the Airport Security Plan**

This section identifies those in charge of managing the overall security plan and the daily activities of the program. For instance, in small airports, the airport manager can assume overseeing airport security and carrying out the plan on a daily basis. In larger airports, although an airport manager is ultimately accountable for system security, daily security activities are most likely coordinated by another individual. This section should also include a listing of all major positions within the security organization and their respective responsibilities. Depending upon the size of the airport, its identity as a domestic or international airport, and traffic volume, a proactive security committee and a security breach review committee could be created. Finally, this section concludes by discussing the levels of training programs available for everyone involved in the security plan. It should also describe the training required to implement new proactive measures. The above items can be presented using the following structure:

*Management of the Plan*

Identify whether the airport manager or another individual will be in charge of daily security activities.

*Responsibilities and Roles of Security Personnel and Divisions*

List the responsibilities and roles of security personnel and the functions carried out by each.

*Airport Security Committees (if applicable)*

Identify each committee name, its purpose, members, and how recommendations could be evaluated and implemented.

*Training*

Describe the different training programs for everyone involved in airport security.

**Airport Security Plan**

This is the main body of the document. It describes in detail the different security functions and procedures that should be carried out to safeguard passengers, personnel, airlines, aircraft, and property. This section covers the security of all elements of airport operations, including ground access, passenger flow within the terminal, passenger and baggage screening, cargo, aircraft and auto parking.

Developing a solid information system for directing passenger flow, from arrival at the terminal curbside to boarding the aircraft, is essential to airport security. For instance, installing accurate and well-displayed signs for directing passengers to particular concourses and gates can help identify those attempting to pass through access-restricted areas. This procedure will also reduce the incidence of questioning innocent passengers who may not be familiar with the terminal layout and accidentally try to enter restricted areas.

*Security of Passengers from Auto Parking/Ground Access Points to Terminal*

Identify security/patrolling functions performed at the parking areas, who is responsible for conducting the function, levels of manning, hours of operations, and means of communication. Identify locations of allowed access points to the terminal building, security/patrol functions and responsibilities, and control posts by location. Also identify additional passenger-screening functions (if any) at the access points, such as restricting access to ticketed-passengers only and checking passport validity.

*Security of Passenger Flow Within the Terminal*

Ideally, a security system should operate efficiently throughout the whole process of ticketing, passenger and baggage check-in, and boarding. Specify the following:

1. How to control the flow of arriving and departing passengers.
2. How to control the flow of domestic and international passengers.
3. The areas where access passes are required.
4. The criteria for granting access passes, how and by

## *A Model for Developing an Airport Security Plan*

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whom these passes are issued, and the format of identification cards, as well as penalties for not complying with regulations.

5. Regulations for the movement of merchandise into the concessions areas.

6. Regulations of passenger movement from duty-free areas to gates.

### *Screening of Passengers and Carry-on Baggage*

Depending upon the type of airport, passengers must pass through one or more screening points. Screening can be conducted at a central location, piers and concourses, and sometimes pre-departure at the gate. For every screening method, the security plan should specify:

1. Location of screening points, manning of these locations, and qualifications and training of security personnel.

2. Methods and equipment used in screening passengers at different locations.

3. Methods of communications between security personnel at these locations and central airport security.

4. Screening methods for crew flights and diplomats.

5. Screening methods for sensitive carry-on material such as cameras, laptop computers, and X-ray sensitive material.

6. Screening methods for airport and airline employees who have access to restricted areas.

7. Methods to deal with prohibited items discovered in the course of screening.

### *Screening of Baggage*

This section covers the security control of baggage checked-in by passengers at airline counters that are destined for carriage in the hold of aircraft. The security plan should specify:

1. Location of screening points, manning these locations, and qualifications and training of security personnel.

2. Methods and equipment used in screening baggage.

3. Methods of communications between security personnel at these locations and central airport security.

4. Screening methods for baggage carried by crew flights and diplomats.

5. Methods and equipment used to control the flow

of baggage (for example, visual control or closed-circuit monitors).

6. Screening methods for airport and airline employees who have access to these restricted areas.

7. Methods to deal with prohibited items discovered in the course of screening.

### *Security of Cargo*

The cargo terminal is a high-activity area that could allow illegal access to the airside area and to both passenger and cargo aircraft. An airport security plan should specify the access points to the cargo terminal, staff identification by access passes and cards, vehicle identification, methods of surveillance of doors and windows, and alarm and warning signals of open doors and windows. Similar rules can be established for screening mail.

### *Airside Security*

This section includes security of aircraft, passenger and vehicle movements in the apron areas, and security of interlining passengers and baggage. The FAA's Advisory Circular 150/5200-6A includes thorough guidelines for aircraft security at airports. The security plan should specify the following:

1. Airlines' responsibilities for safeguarding the aircraft and coordination plans with the airport security personnel.

2. Rules for parking unattended aircraft, inspection of aircraft brought from maintenance hangars, and handling hijacked or high-risk flights.

3. How to control the flow of transit/connecting passengers, especially at international airports.

4. The criteria for granting access passes, how and by whom these passes are issued, and the format of other identification cards, as well as penalties for not complying with regulations.

5. Vehicle identification passes with periodic checks.

### *Security of Navigation Aids*

The plan should identify the following:

1. Rules for fencing and location of access points that must be kept to a minimum.

2. Methods of patrolling these access points and methods of communications with the central security control unit.

3. Identification of personnel who must have access

to inspect the navigation aids.

#### **Emergency Plan**

In 1979, the ICAO Council adopted Amendment No. 33 to ICAO Annex 14. The amendment specifies that states shall prepare and implement a program for planning emergency measures at airports. These emergency situations include arrival of a hijacked aircraft, bomb threats against an aircraft on the ground or in the air, bomb threats to airport facilities, and attacks ground-to-air or ground-to-ground. For each of these situations, the security plan should identify the location and name of the group that will be contacted to deal with the situation (for example, bomb disposal service, ambulances, fire brigade, police and armed forces). The plan would also include procedures for dealing with hijacked aircraft, such as aircraft parking position, locations and names of support groups, and evacuation procedures of airside and terminal

Phipps (1991) suggested that detailed contingency plans should be included as annexes to master copies of the security plan and circulated only to those with a need to know the detailed operation of each contingency plan.

#### **Attachments**

##### *Appendix A: Bibliography*

Includes a bibliography of good publications on airport security that contribute to the usefulness of the plan. The bibliography also demonstrates that significant research was considered and that the concepts of the

plan are consistent with federal and international organizations.

##### *Appendix B: Glossary of Security Terms*

A glossary of security terms will provide readers of the plan with information necessary to fully appreciate and comprehend its contents.

##### *Appendix C: Security Forms and Logs*

Copies of different security-related forms and logs in day-to-day operations should be cataloged, labeled, and included in this appendix.

##### *Additional Appendices*

Because a security plan is tailored to meet the situation of a particular airport, any additional appendices that may be needed or useful may also be included.

#### **SUMMARY**

This paper presented a model for developing an airport security plan. There is no standard format or layout; however, security personnel should be able to find all references to their roles and responsibilities easily and quickly. The outline can be adjusted as appropriate to suit the circumstances of a particular airport. These circumstances include location, type of airport (domestic or international), identity of carriers operating at the airport, and volume of passenger traffic. In developing a security plan, it is necessary to leave the detailed course of actions to those persons in charge of airline/airport security. □

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*A Model for Developing an Airport Security Plan*

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