

Airport Security



Norman Ashford, H.P. Martin Stanton. Clifton A. Moore, Airport Operation, pp243-265, 1997

Outline

- Introduction
- Structure
- Responsibility
- Airside Security Procedures
- Landside Security Procedures — Passenger Terminal
- Landside Procedures — Cargo Terminal
- Security Equipment and Systems
- Security Operations

Introduction

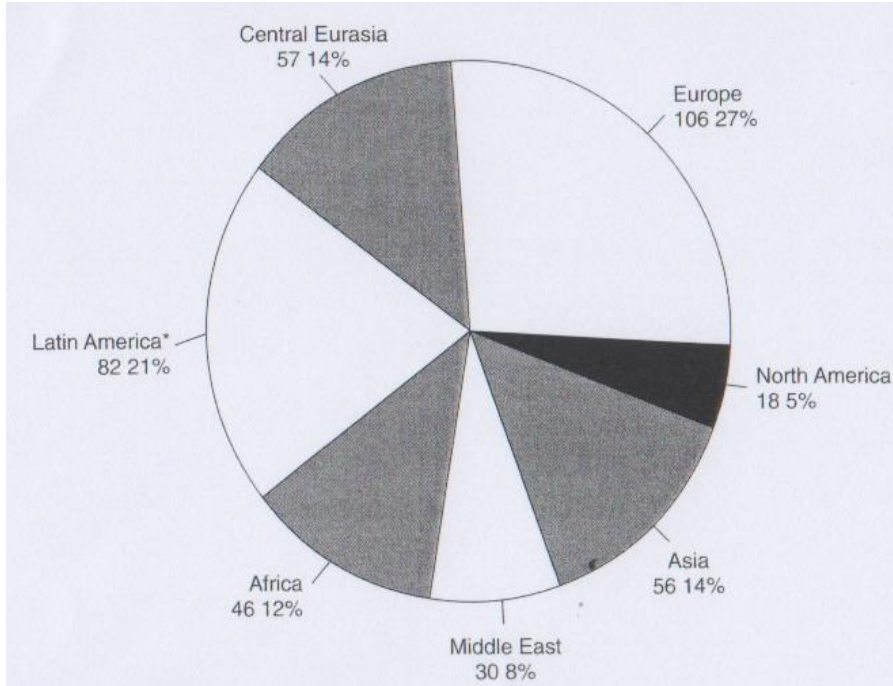
Worldwide Breakdown of High Jacking Incidents 1989-1993

	1993	1992	1991	1990	1989	Totals
Hijackings						
Sub-Saharan Africa	4	5	3	2	1	15
Asia	17	1	2	4	3	27
Europe	2	...	2	...	3	7
Latin America	1	4	5	4	2	16
Middle East and North Africa	4	...	1	2	2	9
North America	1	1	1	3
Central Eurasia	3	2	10	27	3	45

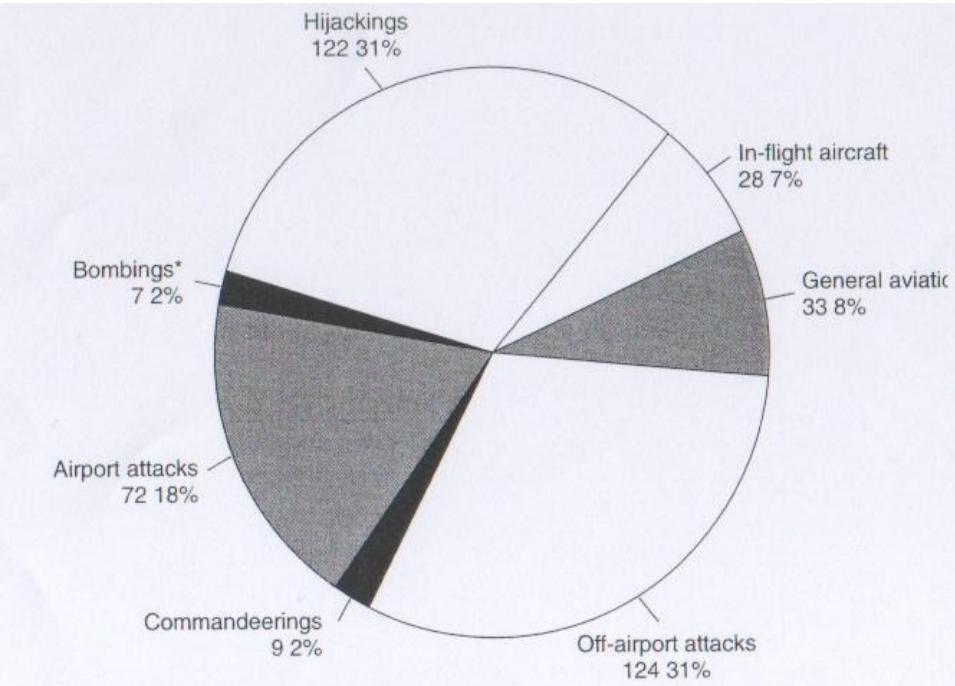
Incidents by Category

Total Incidents, 1989-1993	1993	1992	1991	1990	1989
Civil aviation					
Hijackings	31	12	24	40	15
Commandeerings	2	4	1	2	0
Bombings/attempted bombings/shootings	0	0	1	2	4
General/charter aviation	5	10	10	3	5
Airport attacks	17	15	27	6	7
Off-airport attacks	20	50	47	4	3
Shootings at aircraft	9	7	10	0	2
Totals	84	98	120	57	36
Incidents not counted	13	15	13	2	6

Incidents against aviation by geographic region and category



Incidents against aviation by geographic region 1989–1993
 395 incidents * Also includes Central America and the Caribbean
 Note: Total percentage exceeds 100% because of rounding



Incidents against aviation by category 1989–1993
 395 incidents * Also includes attempted bombings and shootings on board aircraft
 Note: Total percentage is less than 100% because of rounding

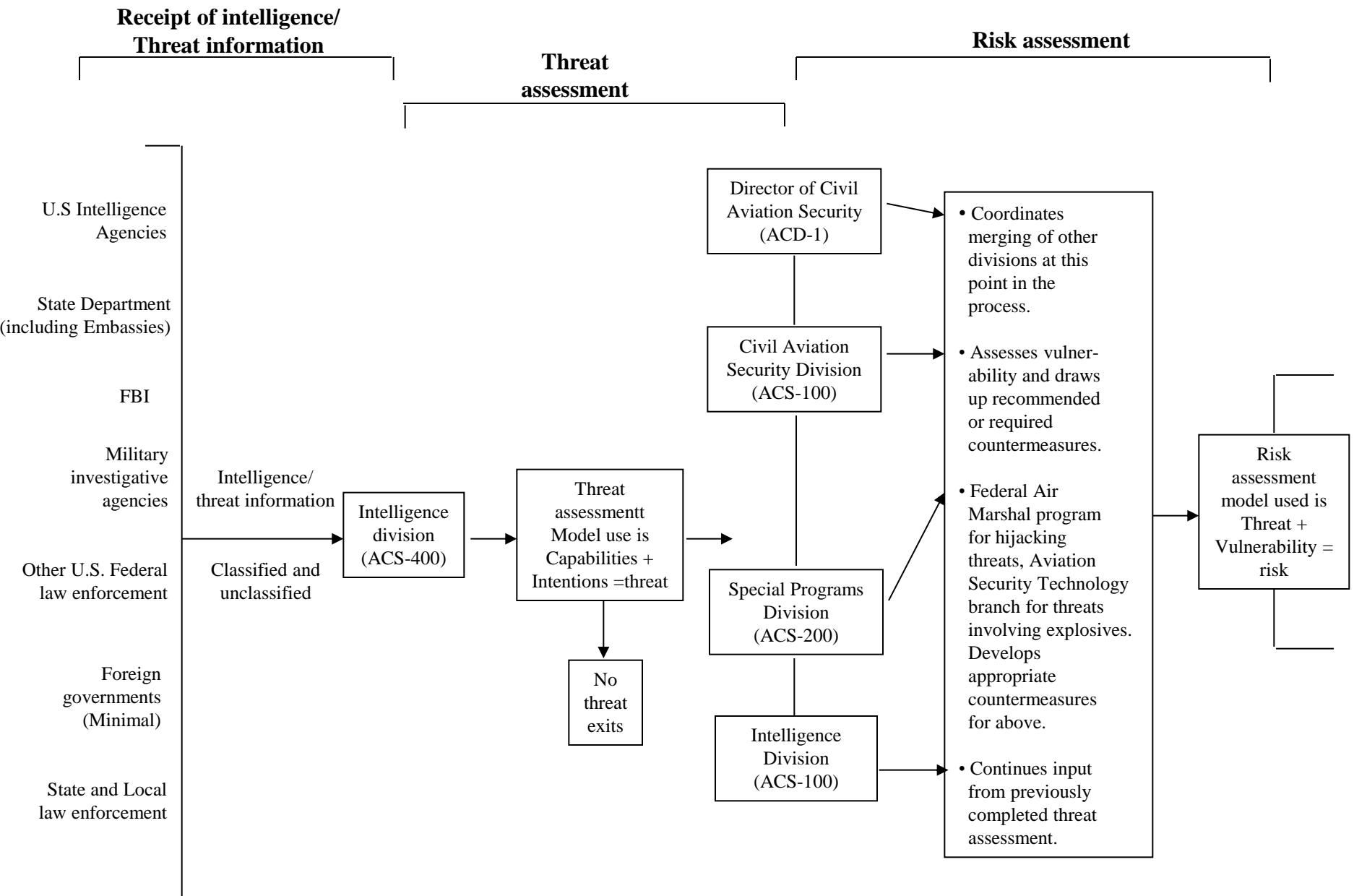
1989 to 1993.

Structure of Planning for Security

- Planning to meet the needs of a security emergency requires the involvement of a number of organizations, such as:
 - The airport administration
 - The operating airlines
 - The National Civil Aviation Organization (FAA, CAA, etc.)
 - Police
 - Military
 - Medical services
 - Security services
 - Labor unions
 - Customs
 - Government departments

Responsibility and Organization

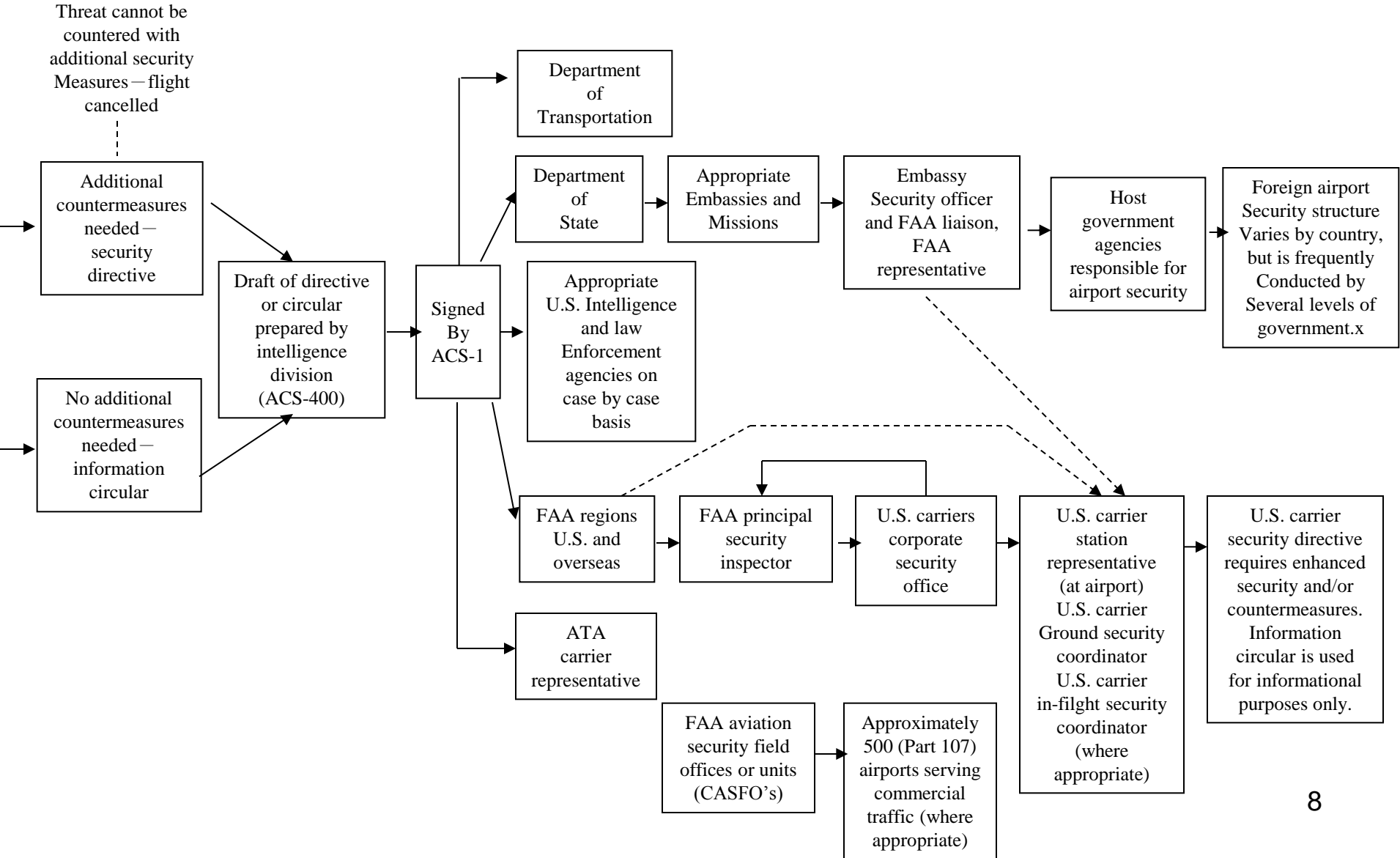
- **Broad Principles of Universal application:**
 - 1. Feasibility.**
 - 2. Responsibility**
 - 3. Efficiency.**
 - 4. Coordination.**
 - 5. Resources.**



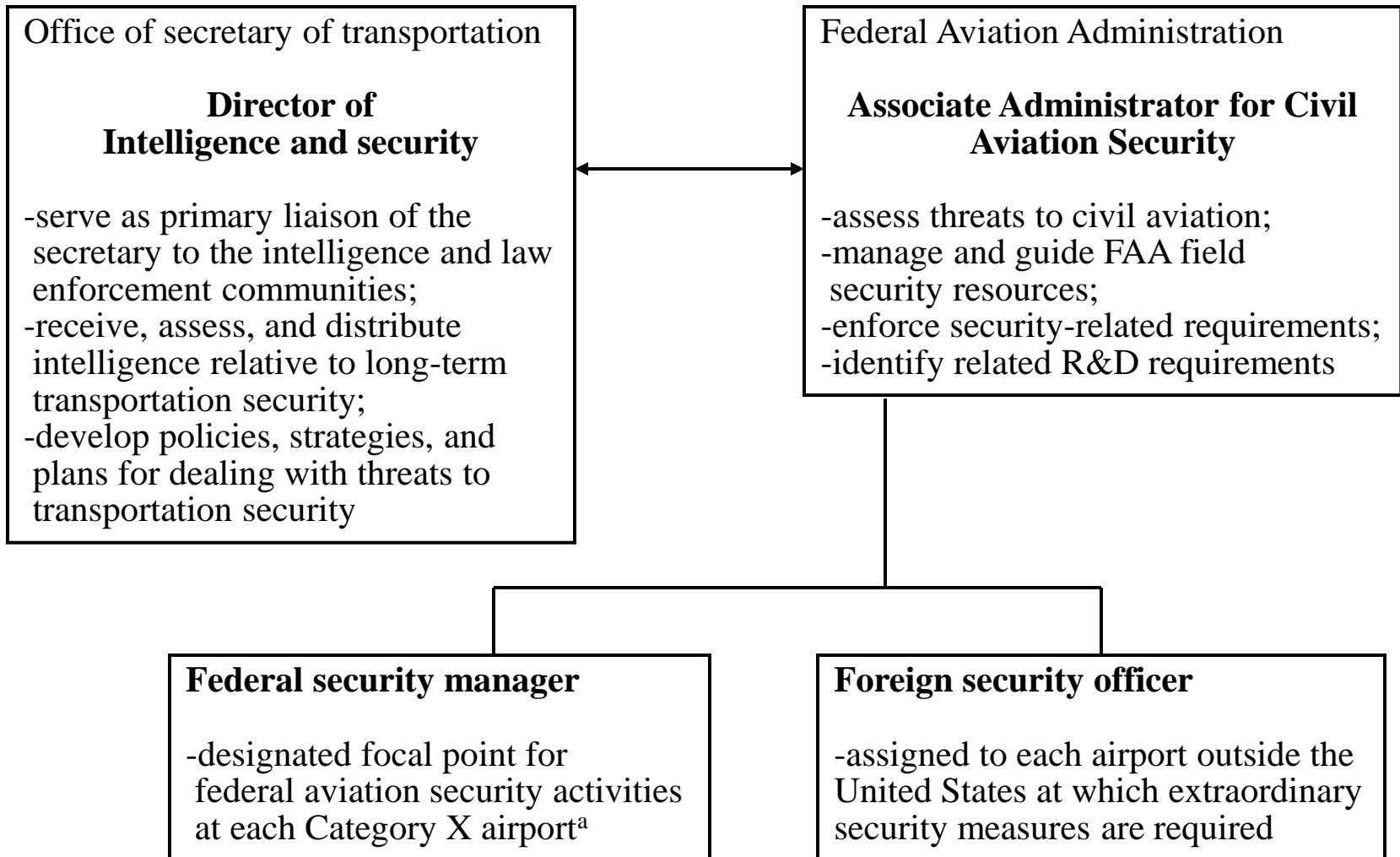
Receipt, assessment and dissemination of intelligence/threat information⁷

Security Directive of Information Circular

Dissemination



Aviation security positions created by the Aviation Security Improvement Act of 1990



^aCategory X airports (19) typically have a large number of passenger enplanements per year, along with departing international flights.

Airside Security Procedures

- **Fencing**
- **Identification of persons**
- **Identification of vehicles**
- **Protection of aircraft on aprons**
- **Control of general aviation**
- **Transfer and interlining passengers, baggage, and cargo**
- **Aircraft isolated parking position and disposal area**

The part to baggage carousels not open to the public for **Airside Security Procedures**



Landside Security Procedures— Passenger Terminal

- Security measures in the passenger terminal area are most effective in preventing subsequent unlawful acts in the air
- Ideally a security systems operates throughout the whole passenger facilitation process of ticketing, passenger and baggage check-in, and boating.

Advantages and Disadvantages of centralized and Decentralized Search Procedures

Advantages

Disadvantages

Centralized Search

Favored by passengers

Passenger segregation in a sterile departure lounge is difficult to achieve

Minimum personnel and equipment needed to process a given number of passengers

Requires staff search

Encourages passenger spending in restaurants and duty-free and other shops

Passenger separation (arriving and departing) difficult to achieve

Easier to have policemen on duty in on place

Surveillance of passengers difficult at busy airports
Only one standard of search is possible, whereas high risk flights may require more thorough search

Gate Search

The separation and surveillance problem is eliminated

Requires earlier call-forward of passengers

The risk of collusion is minimized

Results in loss of revenue from restaurants, bars, shops, etc.

Allows special measures to be taken on high risk flights

Involves long waiting in crowded gate lounges with no facilities

Requires more personnel and more equipment to process a given number of passengers

Creates problems of search team availability of flight schedules go awry

Makes a police presence difficult depending on number of gates in use at one time

Allows passengers to get close to aircraft specific passengers and lines them up for attack when queuing

Current gate lounges inadequate for future aircraft

Pier Search

Combines the advantages and disadvantages of the other systems

Could be the best bet if space available in the right place to set up search points

Landside Procedures – Cargo Terminal

- 1. Identification.*
- 2. Security of all doors and windows.*
- 3. Control of access.*

Security Equipment and Systems

1. *Security fencing and manned barriers.*
2. *Intruder detection.*
3. *Lighting.*
4. *Metal detection.*
5. *Explosive and incendiary device detectors.*
6. *Pressure chambers.*
7. *Bunker.*
8. *Office security equipment.*

Security Program for Security Operations

1. General
2. Organization
3. Airport Security Committee
4. Airport Activities
5. Security Measures at the Airport
6. Contingency Plans to Respond to Acts of Unlawful Interference
7. Security Training Program
8. Appendices to Security Program



Lisbon Airport

Security check (video)



Security check (video)



Security check (video)



Key Terms

- Responsibility
- Airside security procedure
- Landside security procedure
- Passenger terminal
- Cargo terminal
- Security equipments and systems
- Security operation
- Jacking incidents
- Hijackings
- Security Equipment

Key Terms (cont.)

- Bombings
- Off-airport attacks
- Incident
- Security services
- Airport administration
- Feasibility
- Responsibility
- Efficiency
- Coordination
- Resources

Key Terms (cont.)

- Receipt of intelligence
- Threat information
- Threat assessment
- Risk assessment
- Dissemination
- Director of intelligence and security
- Associate administrator for civil Aviation Security
- Federal security manager
- Foreign security officer

Key Terms (cont.)

- Fencing
- Identification
- Security Program