



ANS Cyber Security Oversight

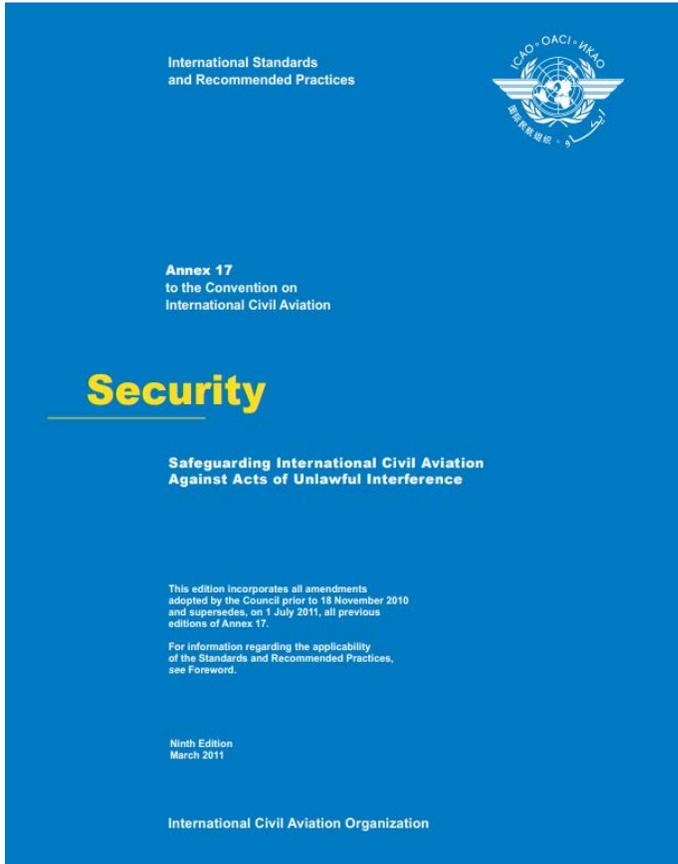
Muna Alnadaf

ICAO MID RO/CNS

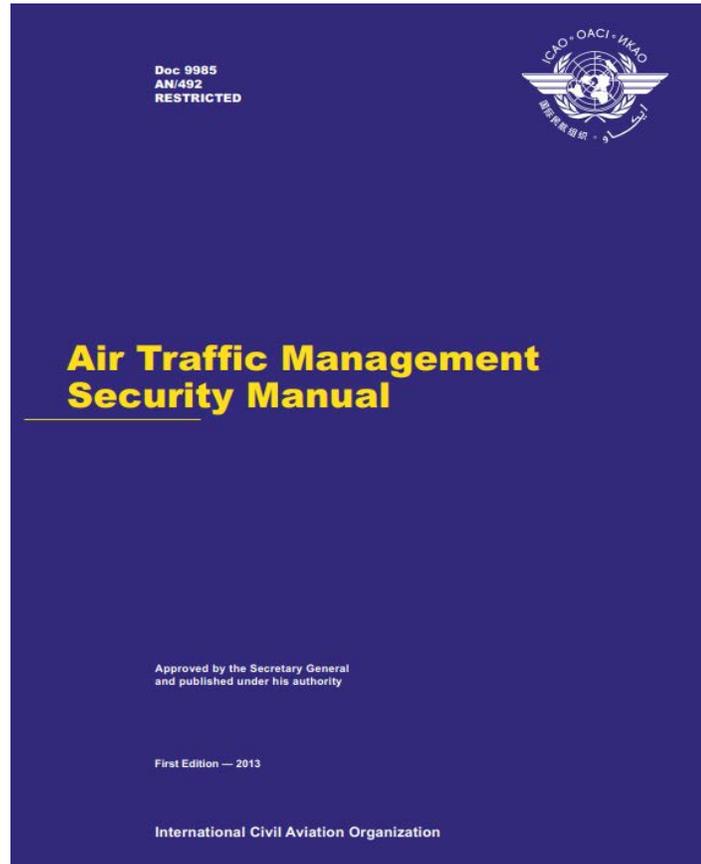




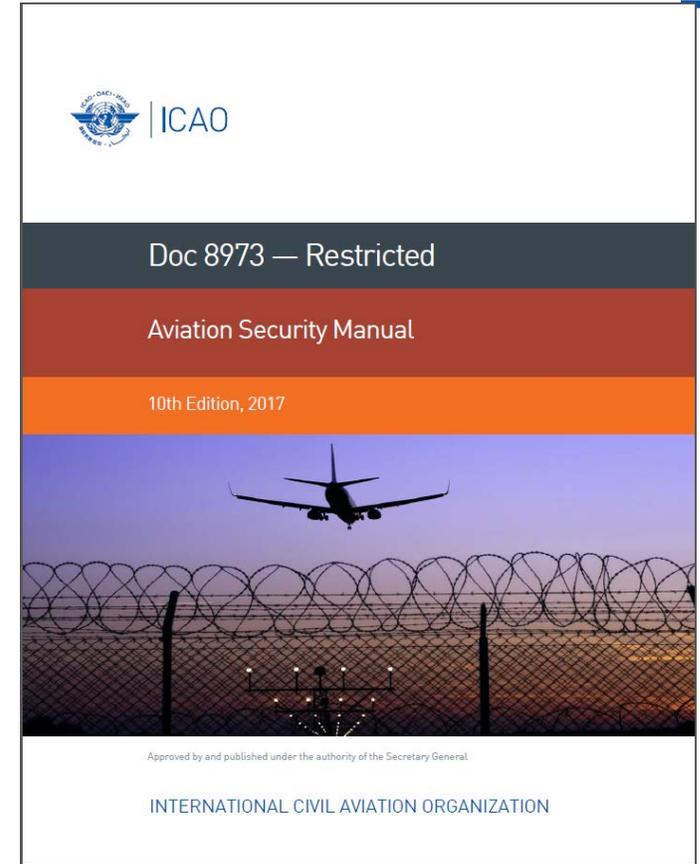
ICAO COUNCIL adopted **Amendment 12 to Annex 17**
(Nov 2010) includes ANSP



Annex 17



Doc 9985



Doc 8973

ATM Security is a subset of Aviation Security which is itself a component of Transport Security

ATM Security is a national responsibility

Safeguarding of the ATM system from security threats and vulnerabilities (ATM protection)



ATM Security Scope

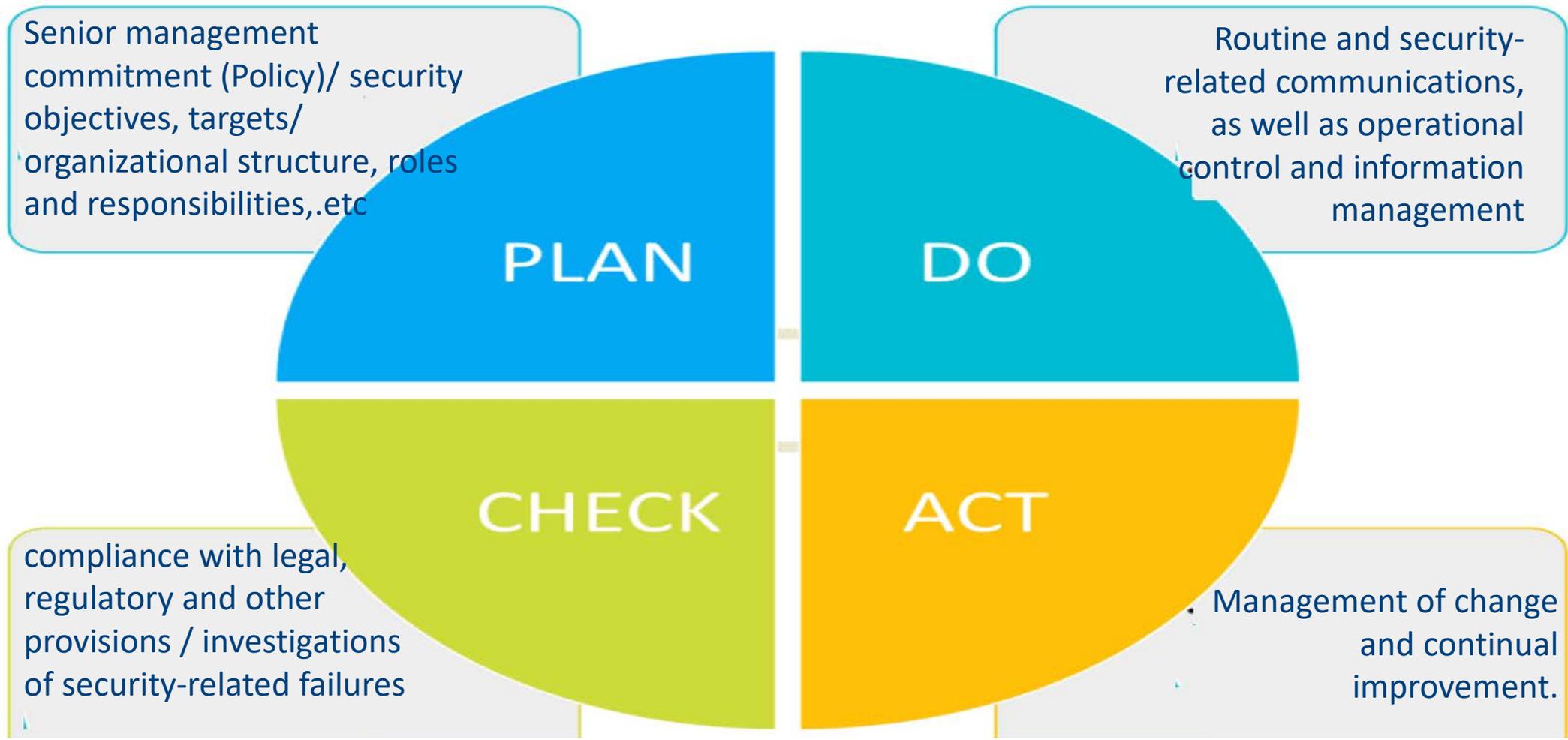
Provision of security services that contribute to civil aviation security, national security and defence (ATM security operations)



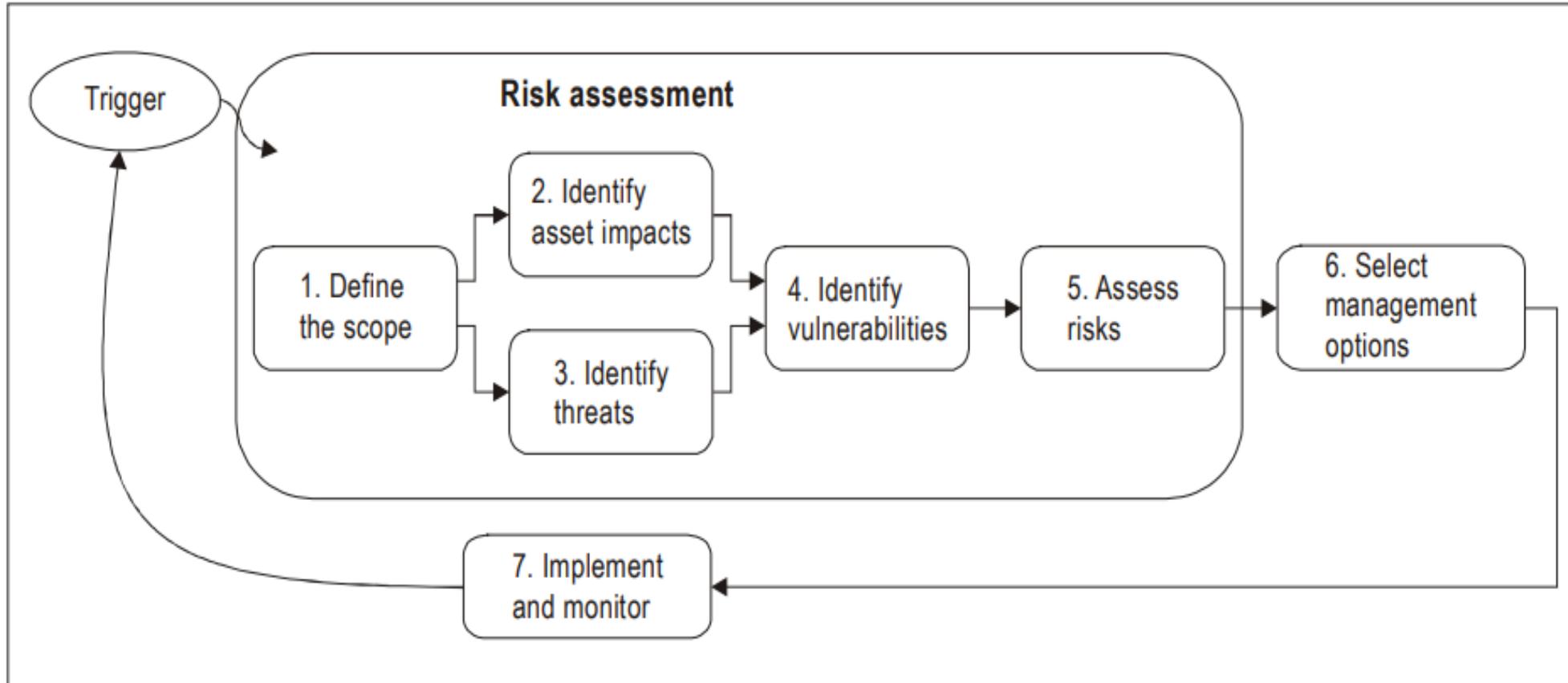
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ATM Security Scope

ICAO Security Management System (SeMS)



Risk Management System



Risk Management System

Triggers

The risk management process should be an ongoing, iterative activity.

ATSPs should identify triggers for risk management to ensure that the security management of the ATM system is updated continuously and meets the challenges posed by the changing environment.

Risk Management System

ATSP may conduct security risk assessments as scheduled events or when triggered by changes in key factors affecting the risk posture of the ATM system.

Common triggers include:

- a) change in threat environment (either threat types or frequency of occurrence);
- b) security incident (e.g., an attack that reveals an unexpected vulnerability);

Risk Management System

c) change in security policy that may affect change in risk priorities or risk appetite; and

d) change to the ATM system or development of a new ATM system.

Risk Management System

Step2: Identify Threats Impact

evaluates the consequence of potential security events on assets within the scope. The impacts may be measured as:

- a) safety;
- b) efficiency/effectiveness;
- c) financial/economics;
- d) public confidence; and
- e) political.

ICT Cyber Security

Security controls are the safeguards implemented to protect the integrity, confidentiality and availability of ATM ICT systems.

Security controls may be management, operational or technical in natures.

a) integrity is a security objective that ensures information and systems are not modified improperly or accidentally.

ICT Cyber Security

b) confidentiality is a security objective that ensures information is not disclosed to unauthorized entities.

c) availability is a security objective that ensures the continuity, reliability, and accessibility of data, resources and services to authorized entities in a timely manner.

ISO 27000 standards Information Security

ATM Security Oversight Programme

- Security oversight is a compliance monitoring and verification process
- Security authorities obtain evidence that the required and expected security performance is met by stakeholders in the ATM system
- ATM Security Oversight Programme is part of the overall national AVSEC Programme (including quality control and training programmes), national ATM security systems are integrated in the national Aviation Security system.

ATM Security Oversight Programme

Scope: The ATM Security Oversight Programme must be an integral part of the overall National Civil Aviation Security Programme (NCASP)

Authority: A single appropriate authority (AA) must be responsible for the National ATM Security Oversight Programme

Organisation: This must be appropriate for the oversight role

Audit/Inspection Plan: An annual plan must be developed

ANS Security Inspectors should be appropriately qualified and trained

- Security management systems
- Security risk assessment
- The incident management process
- Cybersecurity of IT systems and interfaces
- Cyber Security
- Communications, Navigation, and Surveillance systems
- Physical/ORG/personnel SEC



ANS Security Inspectors should be appropriately qualified and trained

The necessary skills must be acquired by audit team members via the established National Civil Aviation Security Training Plan (NCASTP)



Actions by the meeting:

The meeting is invited to note the content of this presentation and take action(s) as appropriate



Thank You!