



International Federation of Air Traffic Safety Electronics Associations

CANSO Latin America Conference 2015

19 to 20 October 2015

in Punta Cana, Dominican Republic

Presentation by Carlos Aguirre, IFATSEA Director Americas Region



- **Founded 1972**
- **More than 40,000 ATSEP
(Air Traffic Safety Electronic Personnel)**
- **60 Countries**
- **Non political & Non industrial & Democratic**
- **Promote Safety & Efficiency in Aviation**
- **Development of high standards technology**
- **Skill, Knowledge & Professionalism**
- **Cooperate closely with international
Aviation bodies**



- **ICAO**
- **CANSO**
- **EASA**
- **EUROCONTROL**
- **Flight Safety Forum**
- **IFATCA / IFALPA**
- **ILO**
- **ITF**
- **SESAR/NextGen**



Key players ATM Situational Awareness

- ATCOs
- Pilots

The silent partner of the ATM Safety Net

- ATSEPs



- ATSEPs identify, assess, mitigate and recover:**
- system anomalies
 - Degradation or failure of services
 - Operational threats



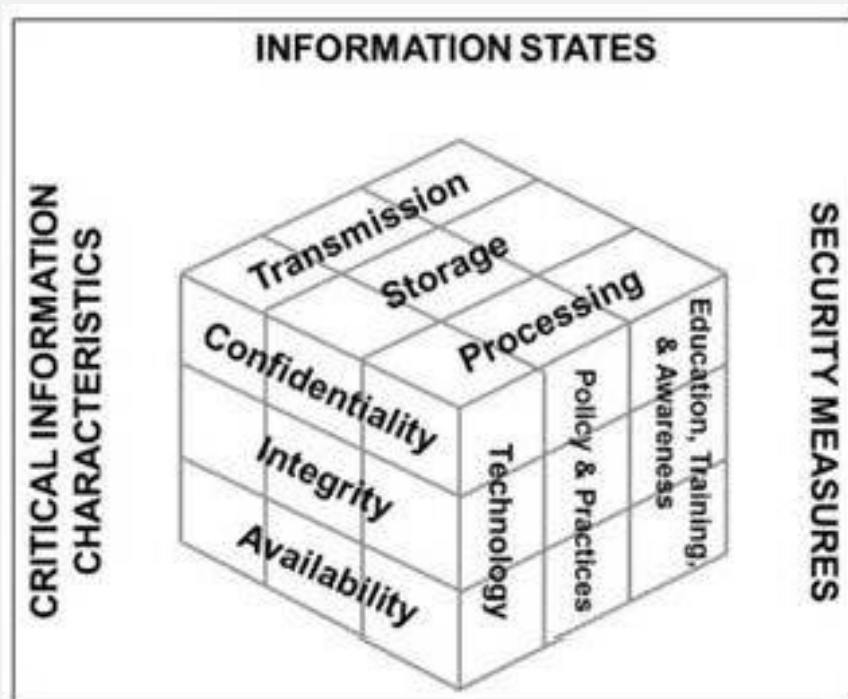
Air Traffic Safety Electronic Personnel (ATSEP)

- Air Traffic Safety Electronics Personnel (ATSEP) are Air Navigation Services Engineering and Technical electronic professionals who **install, commission, certify and maintain** operational Air Navigation systems and networks that affect the availability and integrity of the data at an air traffic controller's workstation or the availability and integrity of the information received by a pilot and other stakeholders. They are usually employed by an Air Navigation Service Provider (ANSP).
- ATSEPs are mainly **engineers, technicians, hardware and software specialists** who are responsible for the specification, procurement, installation, calibration, maintenance, flight testing and certification of ground electronic systems controlling aircraft movements.
- IFATSEA is the global organization for the representation of ATSEPs on professional matters.



A Framework for Establishing and Evaluating Security Programs

McCumber Cube



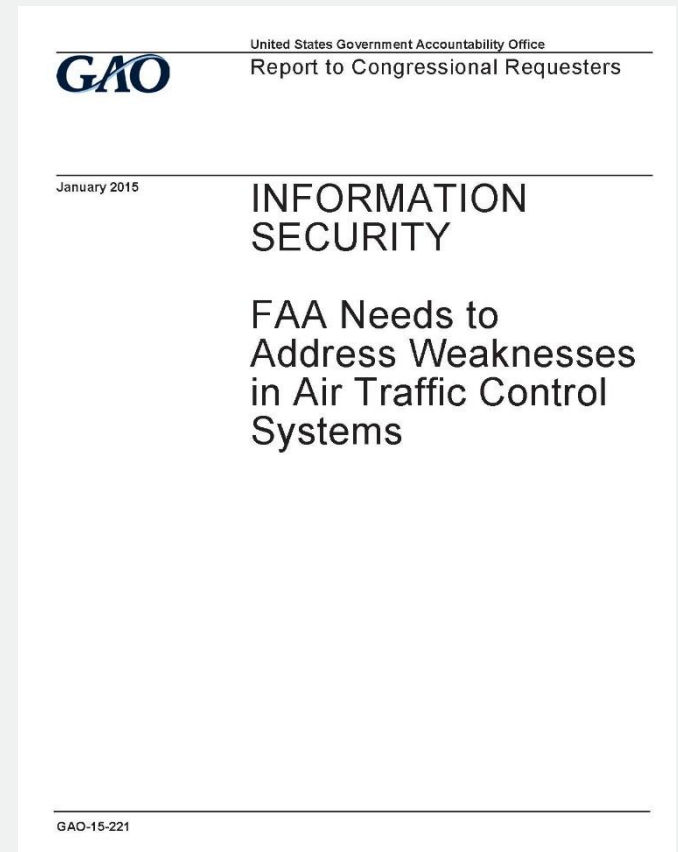
Security & ATM Safety (added Complexity to Security in aviation)

- Automated Environments
- Collaborative Decision Making
- UAVs, RPAS
- Remote Towers
- Network/Nodes Segregation
 - Intra-System
 - Inter-System (Critical Infrastructures)



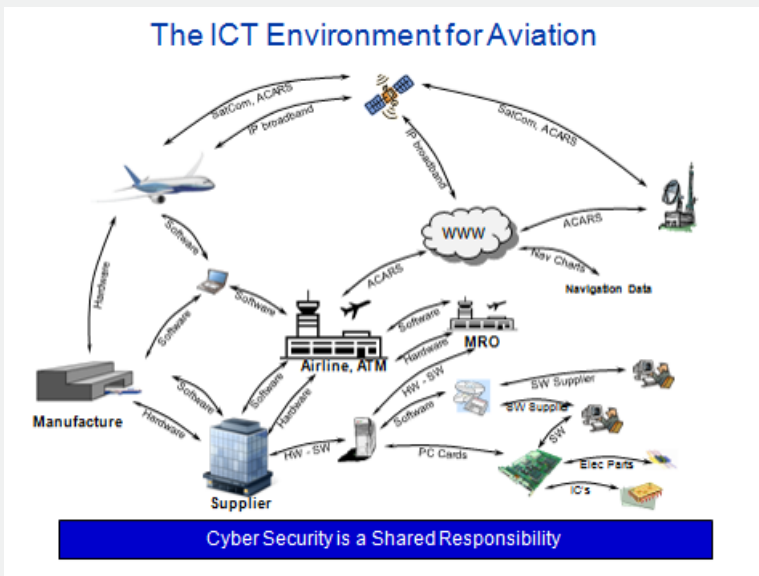
Potential Security weaknesses in Aviation Networks

- **Access to computer resources, firewalls, boundary protection**
- **Audit and monitoring controls to collect, review and analyze data for indications of inappropriate or unusual activities**
- **Security awareness training for all personnel, contractors and other ATM information system users.**
- **Contingency plans completed and adequately tested**



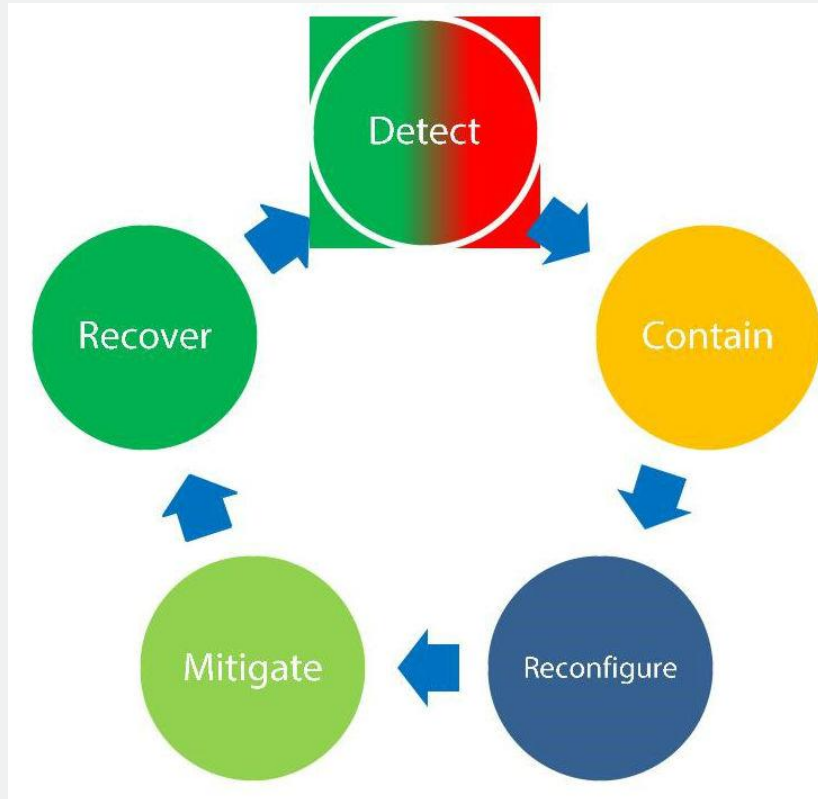


Information and Communication Technology Environment for Aviation



- **Currently there is no common Vision or common strategy, goals, standards, implementation models or international policies To combat cybersecurity in Aviation.**
- **Establish an integrated, organizational-wide approach to managing the information security risk.**

The ATSEPs Role

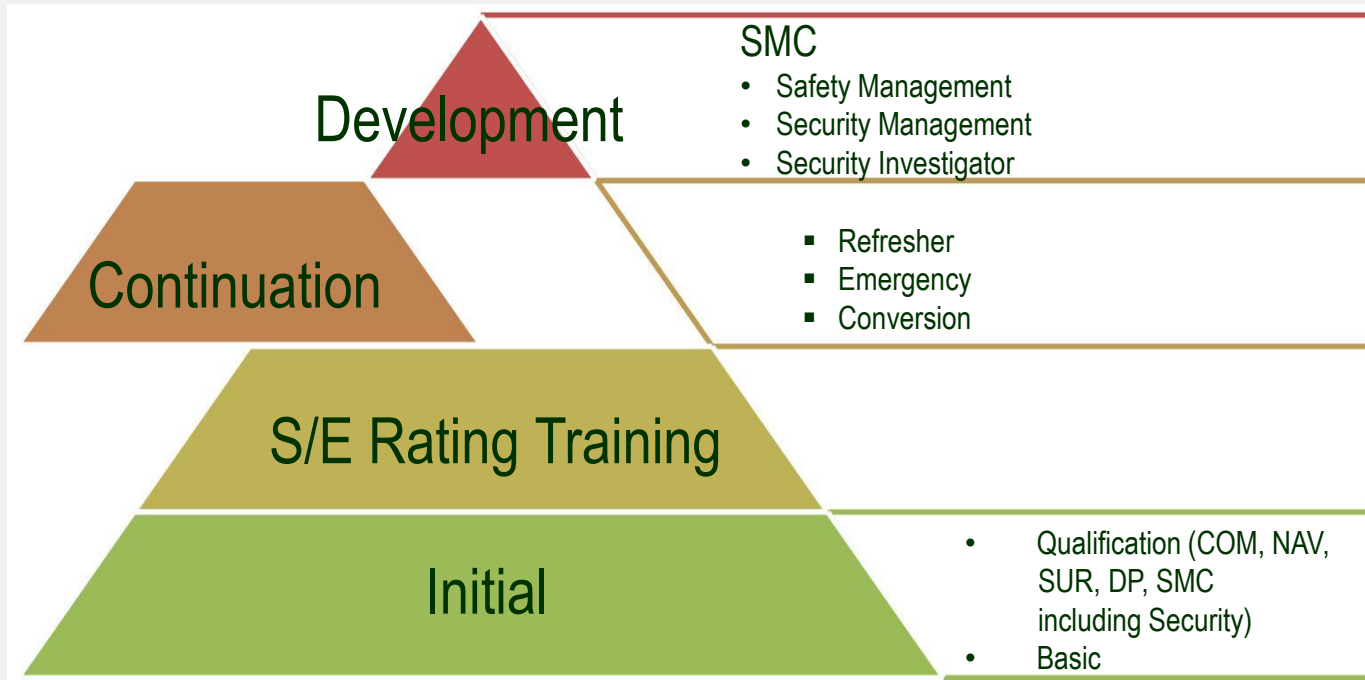


Future ATM cybersecurity Framework:

- Holistic Approach
- System of Systems model
- Collaboration between ATSEPS, Network Managers, System Users and Operators (ATCOs/Pilots)
- Knowledge sharing



Cybersecurity considerations for ATSEP Training





"Companies spend millions of dollars on firewalls, encryption, and secure access devices and it's money wasted because none of these measures address the weakest link in the security chain:

the people who use, administer, operate and account for computer systems that contain protected information."

Kevin Mitnick





“ Smart Companies
recognize their
employees as their
greatest advantage. ”