



Cyber Threats and Risks in Aviation

Carissa VanderMey, Cybersecurity Coordinator
TSA, Security Operations

Cyber Threat to Aviation

Common Cyber Attacks



- Phishing – technique used to steal a user’s data from the internet or computer
- DDOS – overwhelms a network, system, or computer with unwanted traffic till it can no longer respond
- Ransomware - attacker gains control over all or part of an organization’s computer system and refuses to give the system back until a ransom has been paid
- Malware – malicious software that is installed when a user clicks on a dangerous link
- Zero-day – attack when the network, hardware or software vulnerability is announced publicly

Cyber Risk to Aviation

Based on the type of threat, major systems of airline companies that maybe exposed to cyber threats:

- Aircraft IP networks of flights
- Digital Air Traffic Controls (ATCs) and traffic management systems
- Flight-By-Wire systems
- In-flight interface devices
- Flight history servers
- Fleet and route planning systems
- Passenger reservation systems and frequent flyer or loyalty programs
- Ticket booking portals.



Best Practices

- International cooperation
- Governance
- Effective legislation and regulations
- Cybersecurity policy
- Information sharing
- Incident management and emergency planning
- Capacity building, training and cybersecurity culture



Coordination and Collaboration

ACI



COLLABORATION



RAA



