



TRUST FRAMEWORK PANEL PROGRESS REPORT

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Implementation Pioneer Group (SIPG)**

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Overview

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- Establishment of Trust Framework Panel (TFP)
- Terms of Reference
- TFP Job Cards
- WG-Identity Management
- WG-Trust Framework Considerations
- WG-Information Security
- Summary
- TFP Relationship to Other Panels

Establishment of Trust Framework Panel

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- Information and Communication Technology (ICT):
Critical for Safety and Security of Civil Aviation Operations
- Threats to ICT systems: Safety and Security Risk
- Needs for Addressing Cybersecurity in ICAO Assembly
 - ▣ ICAO Assembly Resolution A39-19 (2016)
 - ▣ ICAO Assembly Resolution A40-10 (2019)
- Ad-Hoc Cybersecurity Coordination Committee (AHCCC)
 - ▣ Established by Council on 15 March 2021 (C-DEC 222nd /11th)
- **Trust Framework Panel (TFP)**
 - ▣ Established by Air Navigation Commission (ANC) on 22 June 2022
 - ▣ TFP/1: from 27 to 31 March 2023

TFP Terms of Reference (ToR)

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■ Background

- Cyber-related events may disrupt the safety and efficiency

■ Objectives

- Develop, address and maintain provisions and guidance materials to support enabling trusted data and information exchange
- Develop governance principles, policies, procedures and requirements for a globally harmonized framework
- Define a global architecture and principles for interconnecting networks

TFP Job Cards

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- TFP.001.03: Identity Management (Dec 2025)
 - ▣ Identity Management Policies, Procedures and Technical Requirements
- TFP.002.03: Considerations for an International Aviation Trust Framework (Dec 2025)
 - ▣ Consensus among Stakeholders, Governance, and Transition Planning for Trust Framework
- TFP.003.03: Information Security Framework (Dec 2024)
 - ▣ Loss of Confidentiality, Integrity or Availability of the Information poses a Risk for the Safety of Flight Operations
- TFP established Working Group(WG)s for the 3 Job Cards

WG-Identity Management

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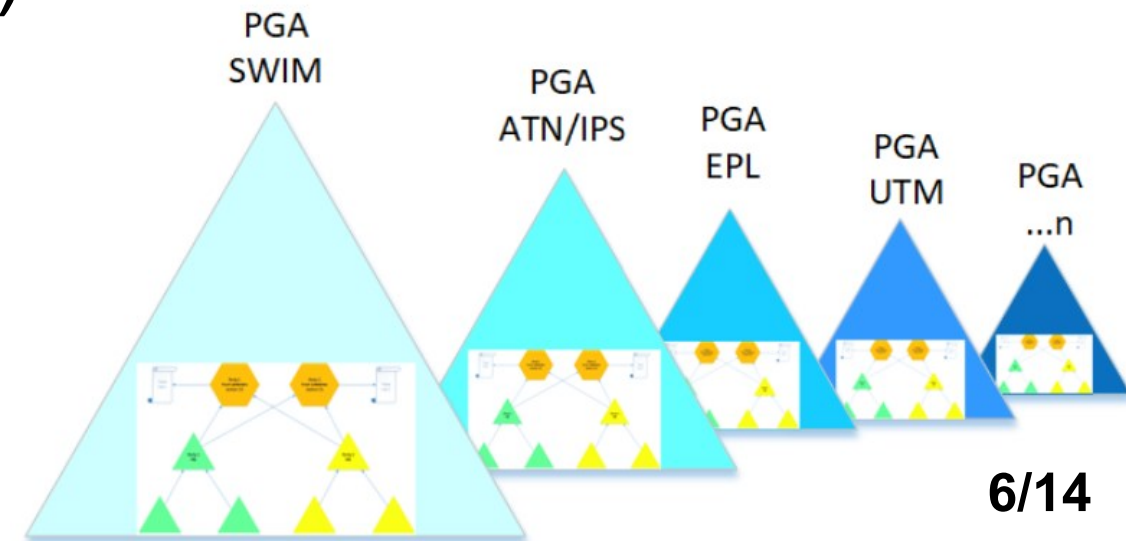
■ Doc 10169 Aviation Common Certificate Policy (ACCP)

ACCP Table of Contents	
Glossary	6. Technical Security Controls
1. Introduction	7. Certificate, CRL and OCSP Profiles
2. Publication and Repository Responsibilities	8. Compliance Audit and Other Assessments
3. Identification and Authentication	9. Other Business and Legal Matters (TBD)
4. Certificate Life-Cycle Operational Requirements	10. Certificate, CRL and OCSP Profile Formats
5. Facility Management and Operations Controls	11. Smartcard Profiles (TBD)

Doc 10169 Aviation Common Certificate Policy

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- X.509 Public Key Infrastructure (PKI) Certificate Policy (CP) and Certificate Practices Statement (CPS)
 - ▣ Civil Aviation version of RFC3647:
X.509 PKI Certificate Policy and Certification Practices Framework
 - ▣ CP: PKI Policy and Requirements
 - ▣ CPS: Procedure for Certificate Authority
- From the International Aviation Trust Framework (IATF) to Trust Framework Instances (TFIs)
 - ▣ IATF: Centralized and International
 - ▣ TFIs: Federated and Self-Governed
- Harmonization and Interoperability
- Available in Dec 2025



WG-Trust Framework Considerations

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- TFIs Getting Started
- Use Cases for TFIs
 - ▣ SWIM (or Electronic Flight Plan)
 - ▣ Controller Pilot Data Link Communication (CPDLC)
 - ▣ Satellite Based Augmentation Systems (SBAS) Authentication
 - ▣ Electronic Personnel Licenses (cf. Doc 9303: MR Passports)
 - ▣ etc.
- Input for next GANP
- Behind Schedule due to transition from IATF to TFIs

Manual on Trust Framework Implementation

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Proposed Table of Contents (Under Discussion)

■ PART I: TRUST FRAMEWORK CONCEPTS

- ▣ Chapter 1: Foundations of Digital Trust
- ▣ Chapter 2: Trust Framework Instance (TFI)

■ PART II: TRUST FRAMEWORK IMPLEMENTATION

- ▣ Chapter 3: TFI Minimum Conditions and Requirements
- ▣ Chapter 4: Relationships between TFIs
- ▣ Chapter 5: Key Ingredients
- ▣ Chapter 6: Establishing a TFI
Initiation through implementation / roadmap
- ▣ Chapter 7: TFI Lifecycle Management

■ Available in Dec 2025

WG-Information Security

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■ Doc 10204: Manual on Aviation Information Security (MAIS)

MAIS Table of Contents	
Glossary	9. Configuration Management
1. Introduction	10. Continuous Monitoring (TBD)
2. Risk Management	11. Information System Maintenance
3. Information Security Assessment and Authorization	12. Security in Software Development (TBD)
4. Identity and Access Management	13. Supply Chain Risk Management
5. Information System Configuration and Management	14. Media Protection
6. Incident Response (TBD)	15. Physical and Environmental
7. Continuity Planning	16. Personnel Security
8. Information Security Planning	17. Information Security Awareness and Training (TBD)

Manual on Aviation Information Security (MAIS)

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- Just Published! (Available in Dec 2024)
- Information Security Management System (ISMS) for Civil Aviation
- Difference between MAIS and ISMS
 1. Purpose of MAIS is **Aeronautical Safety**
= an Information Security Risk is the Safety Risk
 2. ISMS: Part of Internal Control
MAIS: **Information Exchange** among **Multiple Organizations**
- Future Plans
 - ▣ Secure Software Development Chapter from RTCA/EUROCAE
 - ▣ Incident Response and Training Chapter from CYSECP

Trust Framework Panel Summary

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■ Objectives

- Develop, address and maintain provisions and guidance materials to support enabling trusted data and information exchange
- Develop governance principles, policies, procedures and requirements for a globally harmonized trust framework

■ Doc 10169 Aviation Common Certificate Policy (Dec 2025)

- PKI Policy, Requirements
- Procedures for Certificate Authorities

■ Doc 10xxx Manual on Trust Framework Implementation (Dec 2025)

- Explanation and Use Cases of Trust Framework Instances

■ Doc 10204 Manual on Aviation Information Security (Just Published)

- Information Security Management for Safety Management

TFP Relationship to Other Panels

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- Ad-Hoc Cybersecurity Coordination Committee (AHCCC)
- Cybersecurity Panel (CYSECP)
- Communications Panel (CP)
 - ▣ Data Communication Infrastructure Working Group (CP-DCIWG)
 - WG-I (Internet) Internet Protocol Suite (IPS) Security SG
 - Security Risk Assessment
Doc 10145: Manual on Aeronautical Security Risk Assessment
 - IPS PKI Certificate Policy
Doc 10095: Manual on PKI Policy for ATN/IPS
 - ATN/IPS Security Framework
Doc 10090: Manual on Aeronautical Security Services
- Information Management Panel (IMP)
 - ▣ WG-G (Governance)
- Navigation Systems Panel (NSP)
 - ▣ SBAS Authentication Ad-hoc Group (SAAG)

Backup Slides

TFP, CYSECP, and AHCCC

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■ TFP: Safety

- Established by Air Navigation Commission (ANC), from TFSG

■ CYSECP: Security (Annex 17)

- Established by Aviation Security Committee (ASC)

■ AHCCC:

- Established by Council on 15 March 2021 (C-DEC 222nd /11th)

