



**INTERNATIONAL
CIVIL AVIATION
ORGANIZATION**



ICAO and Information Management

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Panel Secretary

ICAO and Information Management

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01 ICAO



ICAO



ICAO

- A United Nations agency which helps 193 countries to cooperate together and share their skies to their mutual benefit.
- Vision
 - A safe, secure and sustainable international civil aviation system that connects the world for the benefit of all nations and people.
- Mission
 - To lead international civil aviation as a key driver of social and economic development while enhancing aviation safety, security, economic development and environmental sustainability for a growing aviation system by advancing air law, developing policies, plans and standards, monitoring and auditing, and supporting States' capabilities for the benefit of all nations and people.



I. Needs Analysis / Validation

II. Global Plans

III. SARPs & PANS

IV. Implementation Planning

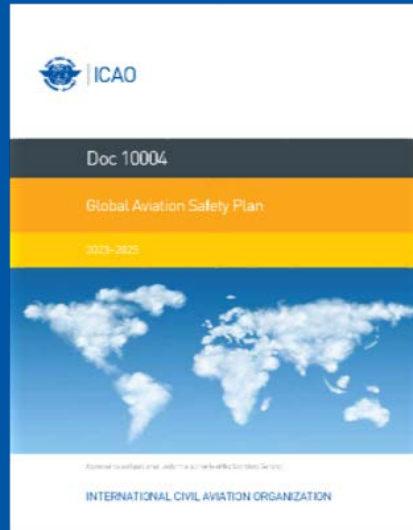
V. Assess & Measure

VI. Compliance & Verification

How can you and your organization contribute towards this global standards-making process?

Global Plans – Safety and Air Navigation

Global Aviation Safety Plan



Vision

To achieve and maintain zero fatalities in commercial operations by 2030 and beyond

Goals

1. Achieve a continuous reduction of operational safety risks
2. Strengthen States' safety oversight capabilities
3. Establish and manage State Safety Programmes
4. Strengthen collaboration at regional and national levels
5. Strengthen aviation safety planning
6. Expand the use of industry evaluation and safety data sharing programmes

Global Air Navigation Plan



A **'LICENSED'** PERSON (Annex 1)
FOLLOWING **'THE RULES OF THE AIR'** (Annex 2)
UTILIZING **'THE METEOROLOGICAL SERVICES'**
(Annex 3),
'AERONAUTICAL CHARTS' (Annex 4) AND
THE PROPER **'UNITS OF MEASUREMENT'** (Annex 5)
'OPERATING' ACCORDING TO ANNEX 6 WITH
A **'REGISTERED'** (Annex 7) AND
'AIRWORTHY' (Annex 8) AIRCRAFT; CROSSING
BORDERS
AND AVAILING HIM/HERSELF OF THE
'FACILITATION' OF ANNEX 9

Doc 7300/9



**Convention on
International Civil Aviation**

**Convention relative à
l'aviation civile internationale**

**Convenio sobre
Aviación Civil Internacional**

**Конвенция о международной
гражданской авиации**

This document supersedes Doc 7300/8.
Le présent document annule et remplace le Doc 7300/8.
Este documento reemplaza el Doc 7300/8.
Настоящий документ заменяет Doc 7300/8.

Ninth Edition – Neuvième édition – Novena edición – Издание девятое — 2006

International Civil Aviation Organization
Organisation de l'aviation civile internationale
Organización de Aviación Civil Internacional
Международная организация гражданской авиации

S/HE USES THE
‘AERONAUTICAL TELECOMMUNICATIONS’ (Annex 10)
TO CONTACT THE **‘AIR TRAFFIC SERVICES’** (Annex 11)
FOR SEPARATION OF HIS/HER AIRCRAFT FROM ANOTHER AND
WILL HOPEFULLY NOT NEED **‘SEARCH AND RESCUE’** (Annex
12).
S/HE WILL DRAW WISDOM FROM THE WORK
OF THE **‘ACCIDENT AND INCIDENT INVESTIGATION’** (Annex 13)
TEAM.
BEFORE TAKE-OFF FROM AN **‘AERODROME’** (Annex 14)





S/HE WILL HAVE USED THE
‘AERONAUTICAL INFORMATION SERVICES’ (Annex 15) AND
WILL DEPART IN AN
‘ENVIRONMENTALLY’ (Annex 16) ACCEPTABLE AIRCRAFT
BEEN **‘SECURITY’** CHECKED (Annex 17) AND
ANY **‘DANGEROUS GOODS’** (Annex 18) HAVE BEEN
PROPERLY DOCUMENTED,



AND FINALLY, WILL MITIGATE THE SAFETY RISK THROUGH PRACTICING

‘SAFETY MANAGEMENT’ (Annex 19)

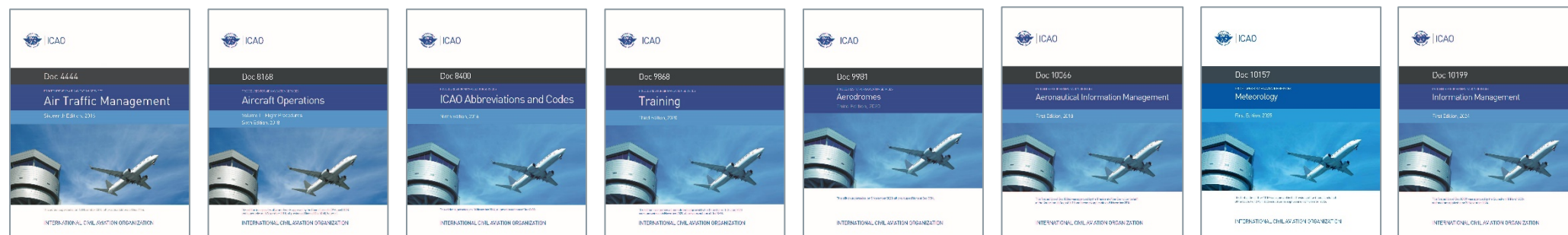
ALLOWING THE INTERNATIONAL AVIATION SYSTEM

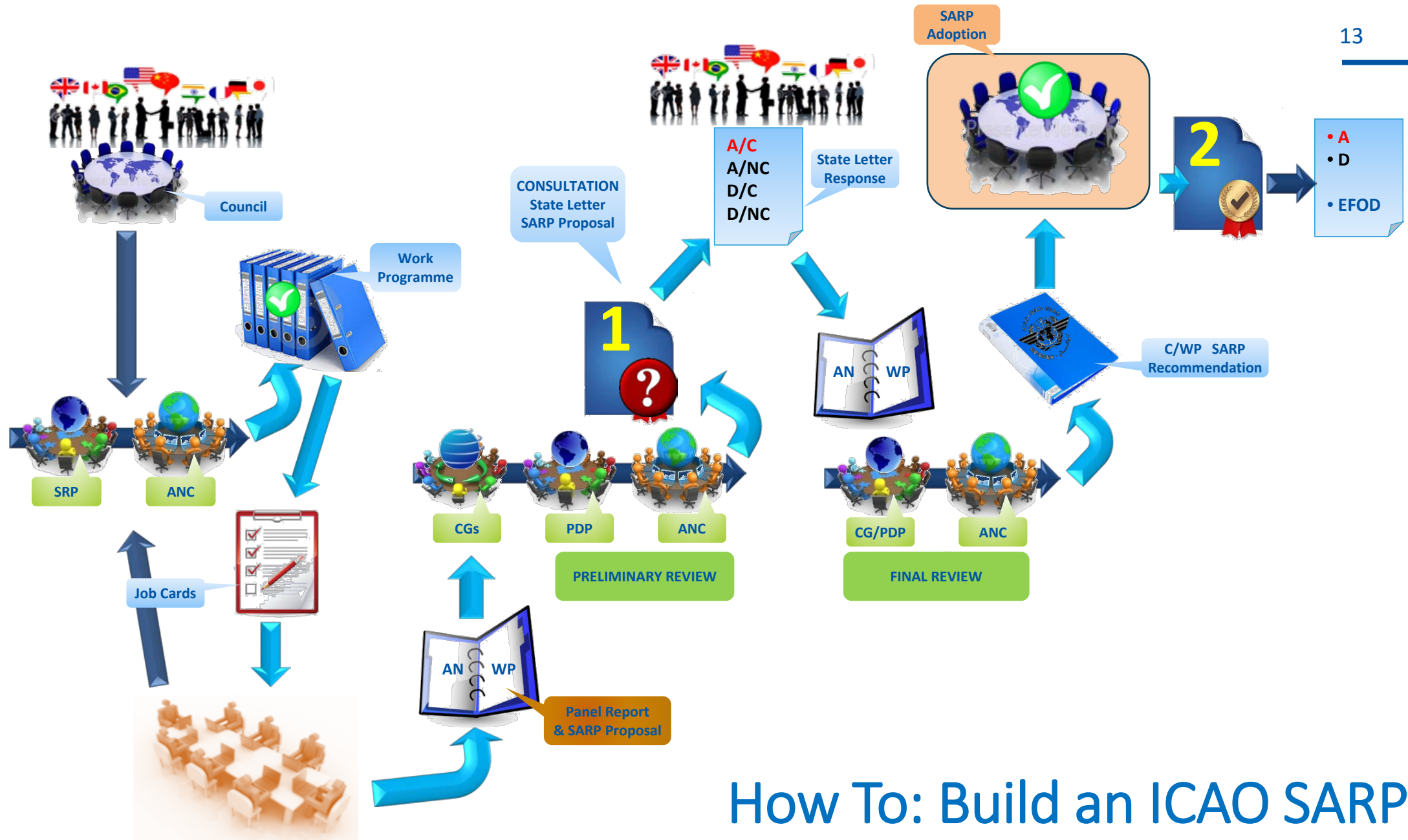
TO SUSTAIN ITS OUTSTANDING SAFETY RECORD

Standards and Recommended Practices (SARPS) - 16 out of 19 Annexes



Procedures for Air Navigation Services (PANS)





Implementation Planning

Training and Guidance

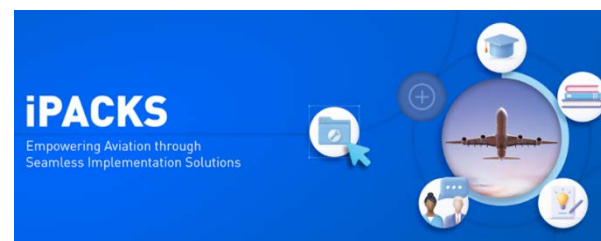
Manuals (over 110)



Circulars (over 37)



Implementation Packs (iPacks)



Symposia

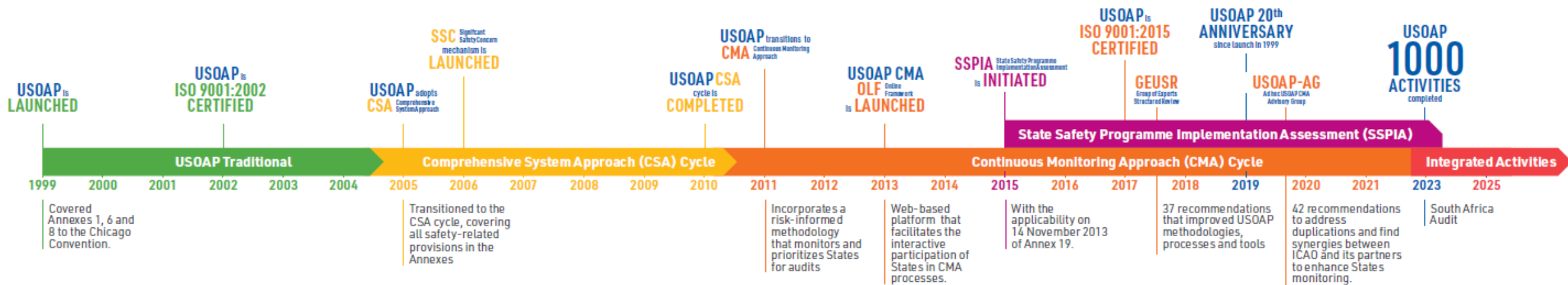


Regional Implementation



Universal Safety Oversight Audit Programme (USOAP)

15



Programme created by in 1999 to strengthen global aviation safety.

This objective is to assess States' effective implementation of the critical elements of a safety oversight system and States' implementation of safety-relevant SARPs.

02

Information management Panel



The Air Navigation Commission (ANC)

- The ANC, ICAO's permanent technical body, was established on 1 Feb 1949 through Articles 54 and 56 of the Chicago Convention (Doc 7300)
- Its 19 Commissioners, nominated by Member States, are appointed by Council for a three-year term
- The ANC has numerous functions, among them to:
 - Consider, and recommend to Council for adoption, modifications of the Annexes to the ICAO Convention;
 - Establish technical sub-commissions on which any contracting State may be represented, if it so desires;
 - Advise the Council concerning the collection and communication to the contracting States of all information which it considers necessary and useful for the advancement of air navigation.



Duties of the ANC

- **Article 55 (Permissive functions of Council)**

- b) The Council may delegate to the ANC duties additional to those set forth in Convention and revoke or modify such delegations of authority at any time

- **Article 57 (Duties of the Commission)**

The Air Navigation Commission shall:

- a) Consider, and recommend to the Council for adoption, modifications of the Annexes to this Convention;
 - b) Establish technical subcommissions on which any contracting State may be represented, if it so desires;
 - c) Advise the Council concerning the collection and communication to the contracting States of all information which it considers necessary and useful for the advancement of air navigation.



BIRTH CERTIFICATE

Certificate of Birth

This is to certify that the following entity was officially born and brought into existence:

NAME: _____ DATE OF BIRTH: _____ PLACE OF BIRTH: _____ PARENTAGE: _____ PURPOSE AT BIRTH: _____	Information Management Panel 28 November 2013 ICAO Headquarters, Montreal, Quebec, Canada FATHER: Air Navigation Commission MOTHER: Air Navigation Commission To support the advancement of information management in international civil aviation by developing Standards and Recommended Practices (SARPs), Procedures for Air Navigation Services (PANS) and, where appropriate, suitable guidance material, and by contributing to globally harmonized and interoperable approaches for the management, exchange and use of aeronautical information.
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This commemorative certificate is issued in recognition of the establishment of the Information Management Panel and its contribution to the evolution of information management in international civil aviation.

WITNESSED BY: <i>The International Civil Aviation Community</i>		DATE OF ISSUE: 19 June 2026
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Terms of Reference

24 February 2014

Background

The Information Management Panel (IMP) is to be established to develop a global and harmonised interoperable approach and elaborate on necessary concepts in order to ensure effective management of Information, including identifying the need for new information exchange formats, on a system-wide basis within the Air Navigation System. A global approach on Information Management is essential to ensure global interoperability and standardisation across all data domains and to support activities such as FF-ICE, the evolution of MET towards digital information exchange and a NOTAM system review.

Scope

The Information Management Panel will investigate and develop solutions supporting the planning framework on Information Management contained in the Global Air Navigation Plan, including further development of SWIM using as a basis the SWIM Concept as elaborated by the ATMRPP.

The IMP will develop a global interoperability framework for international air navigation. Its components (e.g. technical resources such as information models and associated exchange formats, service models, governance functions and structure etc...) will be worked upon as they are identified and agreed during the course of the IMP proceedings.

Terms of Reference

24 February 2014

Required Expertise

The panel shall be preferably composed of experts involved:

- in cross data domain Information Management processes in the field of ATM, or
- in the transition of their State's data domain specific systems (Flight, MET, Airport or AIS) to a cross-data domain IM system, or
- in the operational use of information supplied

Objective(s)

1. Define the **Global Interoperability Framework** (including a minimum set of global use cases, models, processes, and requirements) describing the functions, architectures, and system design requirements which should include the items further described hereafter.
2. Define and elaborate on the **ATM information management concepts, functions and processes** required including business model to provide accredited, quality-assured and timely information required by actors within the air navigation system and used to support operations (including Full FF-ICE, digital MET information exchange and NOTAM system review) on a system-wide basis, including avionics

Terms of Reference

24 February 2014

Objective(s)

3. Identify the **Quality of Service requirements** necessary to maintain ATM information security, integrity, confidentiality and availability and to mitigate the risks of intentional disruption and/or changes to safety critical ATM information identify the Quality of Service requirements necessary to maintain ATM information security, integrity, confidentiality and availability and to mitigate the risks of intentional disruption and/or changes to safety critical ATM information.
4. Develop an **ATM information service architecture**
5. Identify the requirements for **SARPS and changes to existing SARPS** that will provide an interoperable environment that will support the information requirements of all ANS stakeholders in accordance with the blocks and operational improvements outlined in the Global Air Navigation Plan and
 - a) Develop those SARPs necessary to enable SWIM in accordance with the Roadmap outlined in the Global Air Navigation Plan;
 - b) Provide suitable objectives and requirements to serve as the basis for SARP development by other groups where appropriate; and
 - c) Update and maintain the Information Management Roadmap.

Terms of Reference

24 February 2014

Objective(s)

6. **Develop transition strategies and guidance** necessary for the implementation of global SWIM and new information exchange formats, including future avionic requirements.
7. Plan for anticipated **data and information flows** in relation with future ATM requirements and capabilities and assess the capacity of appropriate facilities to support them

Specific Working Arrangements

It is anticipated that the panel will be supported by working groups, each dealing with a specific area. Precise details and meeting frequency/locations will be provided once the group has been established and determines its own tasks.

It is expected that data-domain specific elements would be handled via an identified coordination with domain specific expert groups like the MET Panel.

For AIS to AIM, existing AIS-AIMSG will be maintained until termination of current work on amendment of Annex 15 and PANS-AIM. The further evolution and work on AIM towards cross-domain information management will then fall under the remit of the IMP.

Membership and working arrangements

19 June 2026

- **4 Working groups:**
 - WG A – Aeronautical Information
 - WG I/S – Information and services
 - WG G – Governance
 - WG TI – Technical Infrastructure
 - WG TH – Terminology harmonization
- **Future meetings**
 - IMP WG/14 from 19th to 23rd October 2026 in Madrid, Spain;
 - IMP WG/15 from 19th to 30th April 2027 in a Regional Office;
 - IMP WG16 from 4th to 15th October 2027;
 - IMP/5 from 18th to 28th April 2028 in Montreal;
 - IMP WG/17 from 16th to 27th October 2028.



Membership and working arrangements

19 June 2026



03 Information management In ICAO



Information management in ICAO

Relevant Annex, PANS and guidance material

- **Annexes :**
 - **Annex 3** - Meteorological services for international air navigation
 - **Annex 4** – Aeronautical charts
 - **Annex 15** - Aeronautical Information Services
- **PANS:**
 - **PANS-AIM** - Procedures for air navigation services – Aeronautical Information Management (Doc 10066)
 - **PANS-ATM** - Procedures for air navigation services – Air Traffic Management (Doc 4444)
 - **PANS-MET** – Procedures for air navigation services – Meteorology (Doc 10157)
 - **PANS-IM** – Procedures for air navigation services – information management (Doc 10199)
- **Manuals**
 - **Manual on SWIM implementation (Doc 10203)**
 - **Manual on Aviation Information Security (Doc 10204)**
 - **Aviation Common Certificate Policy (Doc 10169)**
 - **Manuals from the relevant domains**

Key milestones

2030: Provision of volcanic ash information service

2034: Sunset of Flight Plan 2012. Replaced by FF-ICE services

2038: Sunset of the NOTAM system. Replaced by the Digital Operational Reporting Information Service

→ All of this requires **System Wide Information Management (SWIM)**



Key message

Digitalization and information management have become strategic priorities for ICAO and will be reinforced in the next edition of the GANP.

The time has come for States and industry to invest in digital capabilities, modernize information exchange and work together to bring aviation into a new era of connectivity, efficiency, resilience and innovation.

Thank You

