➢ **FICE in the 6ᵗʰ Edition of GANP**

➢ **AIDC Guidance**

➢**FF-ICE provisions**

FICE IN GANP/ASBU

ICAO | UNITING AVIATION
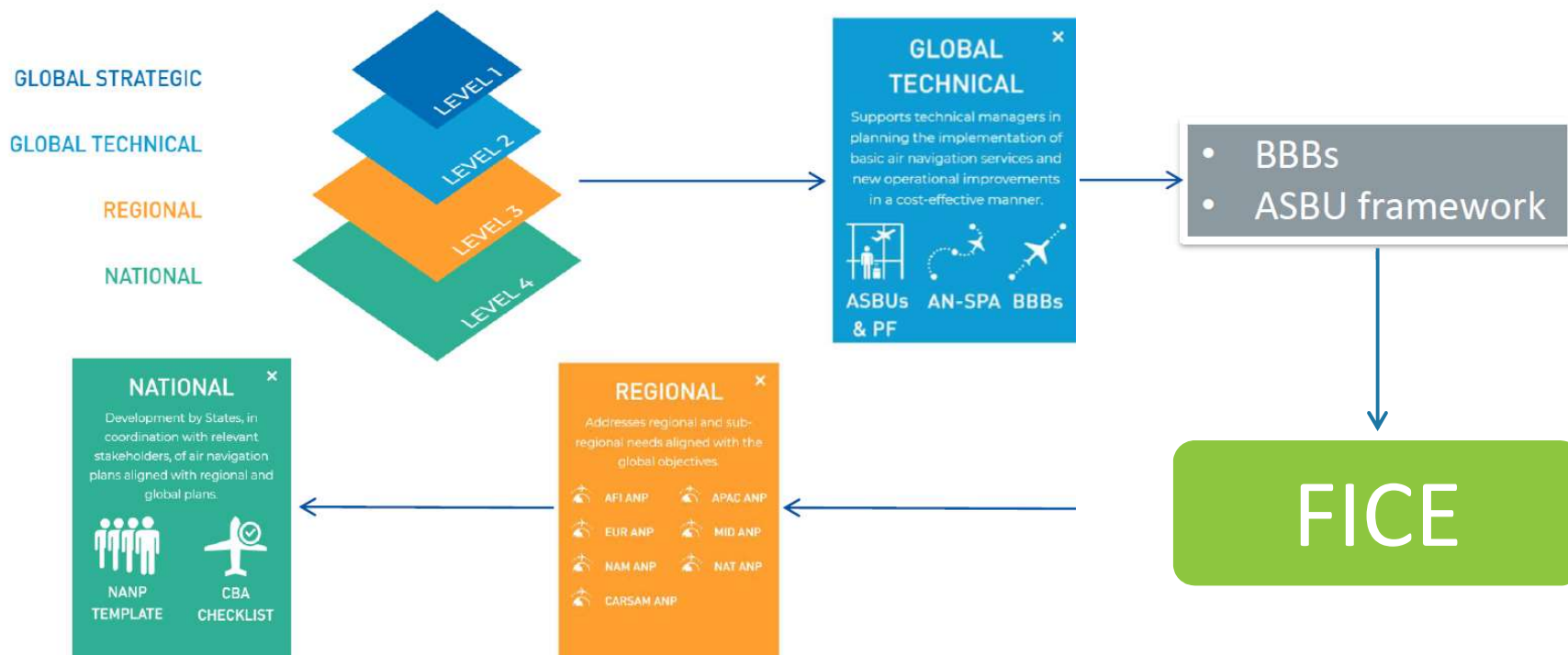
ASBU Threads (In Part..)

Operational

| ACAS | Airborne Collision Avoidance System (ACAS) | Operational |
| ACDM | Airport Collaborative Decision Making | Operational |

Information

AMET	Meteorological information	Information
DAIM	Digital Aeronautical Information Mangement	Information
FICE	Flight and Flow Information for a Collaborative Environment (FF-ICE)	Information

CNS technology and services

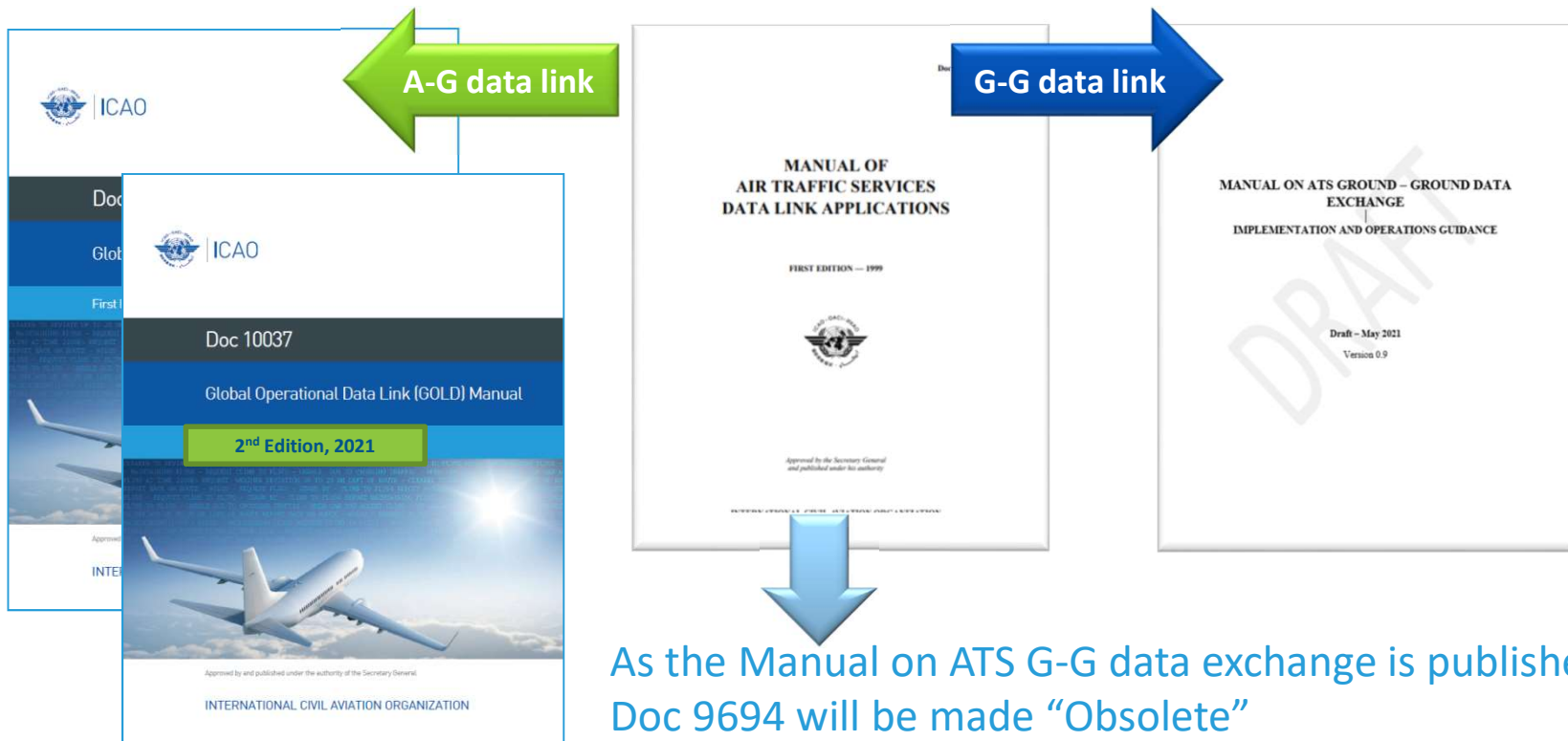| ASUR | Surveillance systems | Technology |
COMI	Communication infrastructure	Technology
COMS	ATS Communication service	Technology
NAVS	Navigation systems	Technology

ICAO | UNITING AVIATION

	FICE			
FICE-B0/1	Automated basic inter facility data exchange (AIDC)	Information		
FICE-B2/1	Planning Service	Information		
FICE-B2/2	Filing Service	Information		
FICE-B2/3	Trial Service	Information		
FICE-B2/4	Flight Data Request Service	Information		
FICE-B2/5	Notification Service	Information		
FICE-B2/6	Publication Service	Information		
FICE-B2/7	Flight information management service for higher airspace operations	Information		
FICE-B2/8	Flight information management service for low-altitude operations	Information		
FICE-B2/9	Flight information management support for inflight re-planning	Information		
FICE-B3/1	Flight information management services for enhanced trajectory operations	Information		
FICE-B4/1	Integrated flight information management system for end-to-end global flight planning	Information		
FICE-B4/2	Real-Time Participation of operators in flight information	Information		

UPDATE OF
AIDC GUIDANCE

AIDC Guidance

A-G data link

G-G data link

Doc 10037

Global Operational Data Link (GOLD) Manual

2ⁿᵈ Edition, 2021

INTERNATIONAL CIVIL AVIATION ORGANIZATION

MANUAL OF
AIR TRAFFIC SERVICES
DATA LINK APPLICATIONS

FIRST EDITION — 1999

*Approved by the Secretary General
and published under his authority*

MANUAL ON ATS GROUND – GROUND DATA
EXCHANGE

IMPLEMENTATION AND OPERATIONS GUIDANCE

DRAFT

Draft – May 2021
Version 0.9

As the Manual on ATS G-G data exchange is published, Doc 9694 will be made "Obsolete"

AIDC Guidance

1ˢᵗ Edition, 2022/2023

MANUAL ON ATS GROUND – GROUND DATA EXCHANGE

IMPLEMENTATION AND OPERATIONS GUIDANCE

DRAFT

Draft – May 2021

Version 0.9
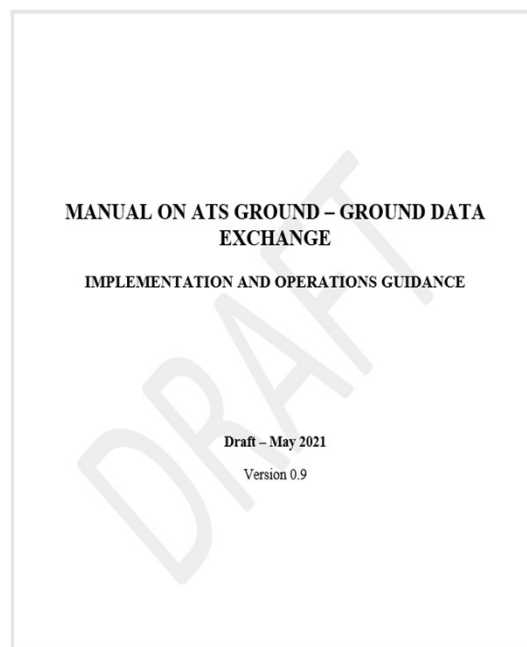
➢ **General guidance**
   - Flight data processing system
   - Automated interface and applications
   - AIDC Messages

➢ **Harmonization framework for AIDC implementation**

➢ **AIDC performance monitoring and validation**

➢ **AIDC training and Implementation**
   - Appendix A Sample LoA
   - Appendix B Sample AIDC Interoperability Test

In addition, AIDC provisions in the PANS-ATM are being reviewed to identify areas for amendment necessary for the globally harmonized implementation of AIDC

ICAO PROVISIONS CONCERNING FF-ICE

Flight and **F**low – **I**nformation for a **C**ollaborative **E**nvironment

Information necessary for planning, coordination, and notification of flights **exchanged** in a **standardized format between members of the ATM community**, including those involved in flight operations and aerodrome operations

Address limitations and constraints of the current flight planning mechanism

Long Term

Short Term

Enable transitioning to a fully collaborative environment where a flight trajectory is shared and optimized during all phases of a flight

Today...

> **Inconsistent or duplicate flight plans** held by various stakeholders (operator, aircraft, departure aerodrome, downstream ATS units)

> Intention of flight can only be **supplied a short time before flight** to ATM and **no feedback from ATM** on the supplied flight intent

> **Inflexible and inefficient means** to accommodate changing information needs at global, regional, and state levels

FF-ICE Changes

- **Inconsistent or duplicate flight plans** held by various stakeholders (operator, aircraft, departure aerodrome, downstream ATS units)

  ➤ **New Mechanisms to exchange information** are higher-performing, uniquely identify flights, and clarify initial distribution

- Intention of flight can only be **supplied a short time before flight** to ATM and **no feedback from ATM** on the supplied flight intent

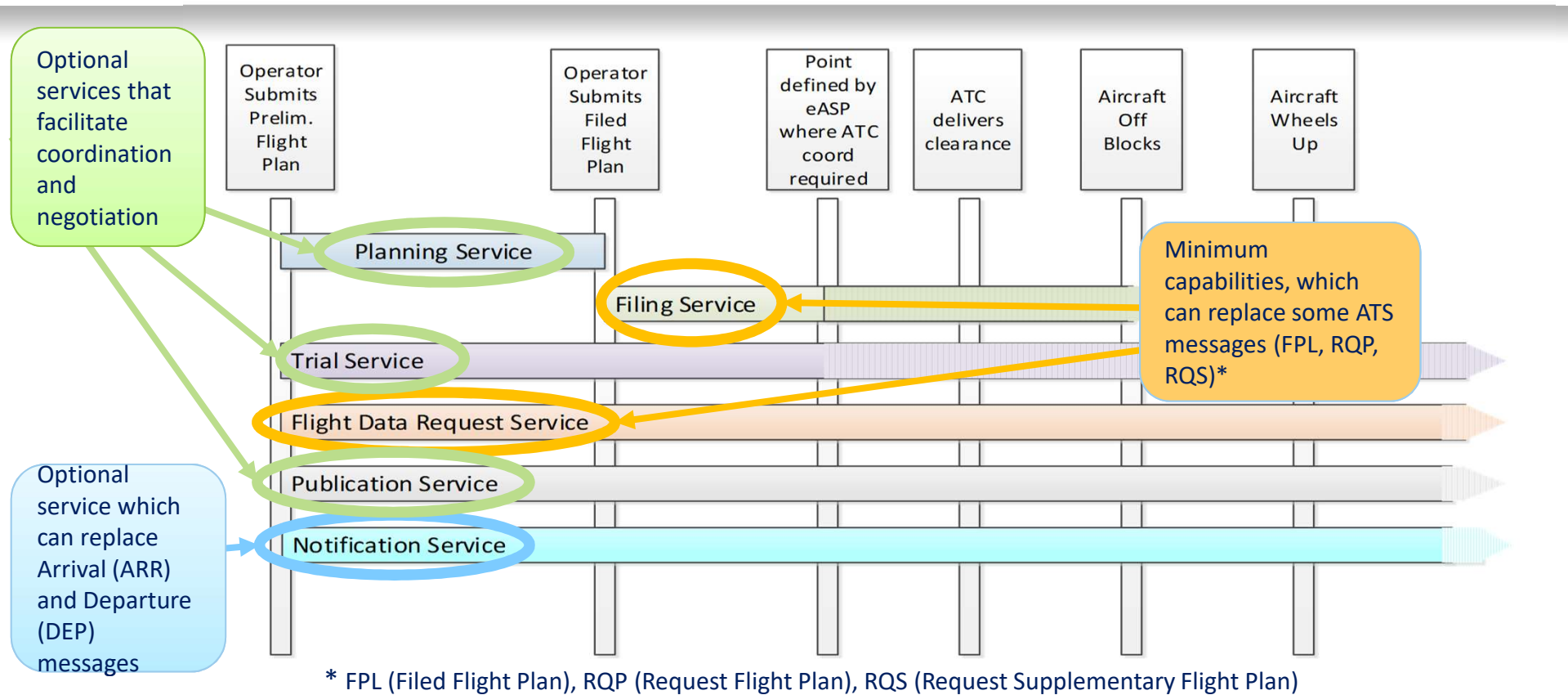 ➤ **New interactions between stakeholders** facilitate coordination and negotiation

- **Inflexible and inefficient means** to accommodate changing information needs at global, regional, and state levels

  ➤ **New data exchanges** ensure all stakeholders work from the correct information, allows indication of advanced capabilities, and is extensible to address emerging needs

Optional services that facilitate coordination and negotiation

Operator Submits Prelim. Flight Plan

Operator Submits Filed Flight Plan

Point defined by eASP where ATC coord required

ATC delivers clearance

Aircraft Off Blocks

Aircraft Wheels Up

Planning Service

Filing Service

Trial Service

Minimum capabilities, which can replace some ATS messages (FPL, RQP, RQS)*

Flight Data Request Service

Publication Service

Optional service which can replace Arrival (ARR) and Departure (DEP) messages

Notification Service

* FPL (Filed Flight Plan), RQP (Request Flight Plan), RQS (Request Supplementary Flight Plan)

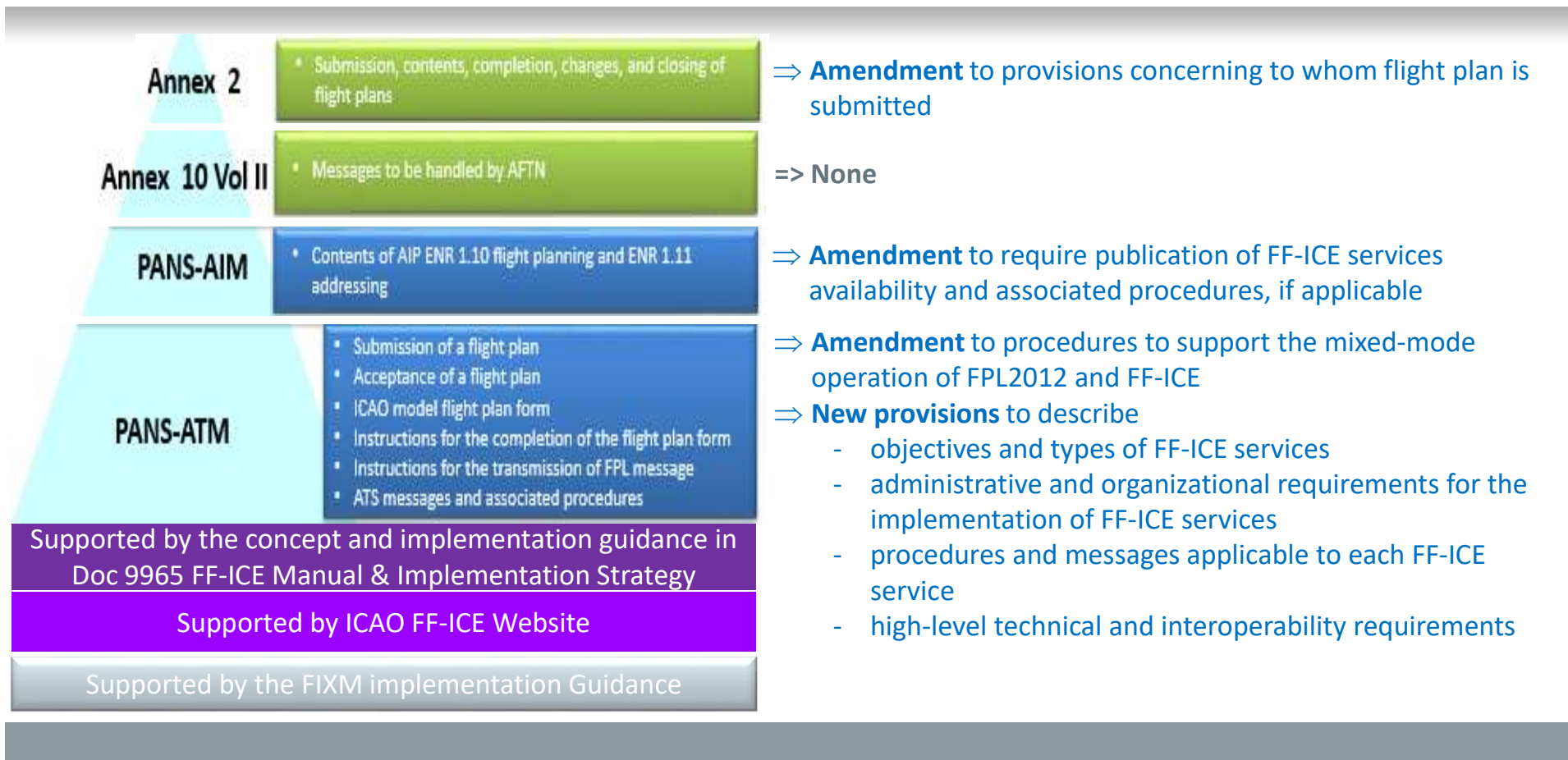**Among all provisions concerning "flight plan" or "flight planning"**

Objectives & Principles

➢ Allow provision and use of **FF-ICE services on a voluntary basis**, but in a **standardized manner**

➢ **No additional requirements** to those not implementing FF-ICE services

➢ Primarily focus on **interactions prior to departure, but allow for successive increments** of provisions to address the evolution of FF-ICE

➢ As **comprehensive yet future-proof provisions** as possible in order to cater for ongoing developments of FF-ICE

Draft FF-ICE provisions

Annex 2 — Submission, contents, completion, changes, and closing of flight plans

⇒ **Amendment** to provisions concerning to whom flight plan is submitted

Annex 10 Vol II — Messages to be handled by AFTN

=> **None**

PANS-AIM — Contents of AIP ENR 1.10 flight planning and ENR 1.11 addressing

⇒ **Amendment** to require publication of FF-ICE services availability and associated procedures, if applicable

PANS-ATM
- Submission of a flight plan
- Acceptance of a flight plan
- ICAO model flight plan form
- Instructions for the completion of the flight plan form
- Instructions for the transmission of FPL message
- ATS messages and associated procedures

⇒ **Amendment** to procedures to support the mixed-mode operation of FPL2012 and FF-ICE

⇒ **New provisions** to describe
- objectives and types of FF-ICE services
- administrative and organizational requirements for the implementation of FF-ICE services
- procedures and messages applicable to each FF-ICE service
- high-level technical and interoperability requirements

Supported by the concept and implementation guidance in Doc 9965 FF-ICE Manual & Implementation Strategy

Supported by ICAO FF-ICE Website

Supported by the FIXM implementation Guidance

**Doc 9965
AN/483**

**Manual on Flight and
Flow — Information for a
Collaborative Environment
(FF-ICE)**

Amendments

Approved by
and publish

...national Civil Aviation Organization

➤ **Volume I Concept (Updated)**

➤ **Volume II Implementation Guidance (New)**

- Implementation considerations
- Air traffic flow and capacity management
- Information management and technology
- Mixed-mode and transition
- State publications, training,
- GUFI and flight plan association
- Recommended means &procedures and for each FF-ICE service
- Route and trajectory as well as other new data items
- Information and data exchange model
- Content of FF-ICE messages
- Logic rules, association checks, GUFI constructions, translation guidance

Summary

Doc 9694 *Manual on ATS Data Link Applications* will be superseded by a new ICAO Manual to be published in 2022/2023

Proposed amendments to relevant Annexes, PANS and guidance are being prepared to support FICE elements B2/1 through B2/6

SAM Member States are invited to :

a) consider the benefits of implementing FF-ICE services

a) commence discussion to transition to implementing minimum capabilities of FF-ICE

THANK YOU!