

# Digital AIM & SWIM extending benefit to ATM and Airports

eighth North American, Central  
American and Caribbean  
Working Group (NACC/WG)

Aeronautical Information  
Management Implementation  
Task Force Meeting (AIM/TF/8)

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ICAO - México City, Mexico, 8 to 11 July 2025



The aviation industry is undergoing a transformative leap into an era defined by the convergence of digital infrastructures, shaping the future of air traffic management marked by **hyper-connectivity**, and **data-centric systems**.

This challenge calls for a collaborative effort to navigate together through the goal of innovation in the Aviation Digital Ecosystem – where aircraft, airport operations and air traffic management are all connected together. And when we break this down a bit further, we can see more clearly how these connections all play a role in improving the operational efficiency, sustainability, and more.

# Main evolution Driver

European ATM  
Master Plan

ICAO ASBU and GANP  
ICAO Doc 8126



iNM CFT  
Eurocontrol



- **European Capacity & Resilience challenge**
- **Airspace Architecture Study (AAS)** and related Transition Plan
- **Decoupling** of service provision from local infrastructure
- **Digital transformation** (not limited to ATFM DCB): new infrastructure allowing air traffic and data service providers, irrespective of national borders, to plug in their operations where needed
- **Virtual centres** implementation and delegation of ATS services
- **Changes in the way** that technologies are developed and deployed, as well as in the way services are provided.
- **Improved interoperability Levels:** **SOA/microservices** approach, **SWIM** adoption, open standards
- **New business models:** ATM data distribution services: certified private service providers and ANSPs (e.g. ATFM ADSP, FDP Services)
- **Subscription to public-service cloud-based data service**
- **AI intelligence** and increased automation levels (e.g.

European AAS &  
Transition Plan



Working Group (NACC/WG) Aeronautical Information  
Management Implementation Task Force Meeting  
(AIM/TF/8) ICAO - México City, Mexico, 8 to 11 July 2025





ICAO

# Global Air Navigation Plan

Digital Aeronautical Information Management (DAIM)



ICAO

International Standards  
and Recommended Practices

Annex 15 to the Convention on International Civil Aviation

Aeronautical Information Services

high-level requirements  
and performance  
specifications for States

This edition supersedes, on 9 November 2018, all previous editions of Annex 15.  
For information regarding the applicability of the Standards and Recommended Practices, see Foreword.

INTERNATIONAL CIVIL AVIATION ORGANIZATION



ICAO

Doc 10066

PROCEDURES FOR AIR NAVIGATION SERVICES

Aeronautical Information Management

First Edition, 2018

a means for increased  
harmonization within the  
aeronautical information  
domain

INTERNATIONAL CIVIL AVIATION ORGANIZATION



ICAO

Doc 10199

PROCEDURES FOR AIR NAVIGATION SERVICES

**INFORMATION MANAGEMENT**

First Edition, 2024

The first edition of the *Procedures for Air Navigation Services — Information Management* (PANS-IM, Doc 10199) contained in this document was approved by the Council of ICAO on 18 March 2024 for applicability on 28 November 2024. (State letter AN 2/36.1-24/39 refers.)

DAIM: B2/5

NOTAM replacement

# STANDARD FORMATS HELPS INTEROPERABILITY



**Applicable on 28 November 2024**

## Appendix 2

### CONTENTS OF THE AERONAUTICAL INFORMATION PUBLICATION (AIP)

#### PART 1 — GENERAL (GEN)

...

#### GEN 3. SERVICES

...

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*Editorial Note.— Insert new section.*

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#### GEN 3.7 Information services

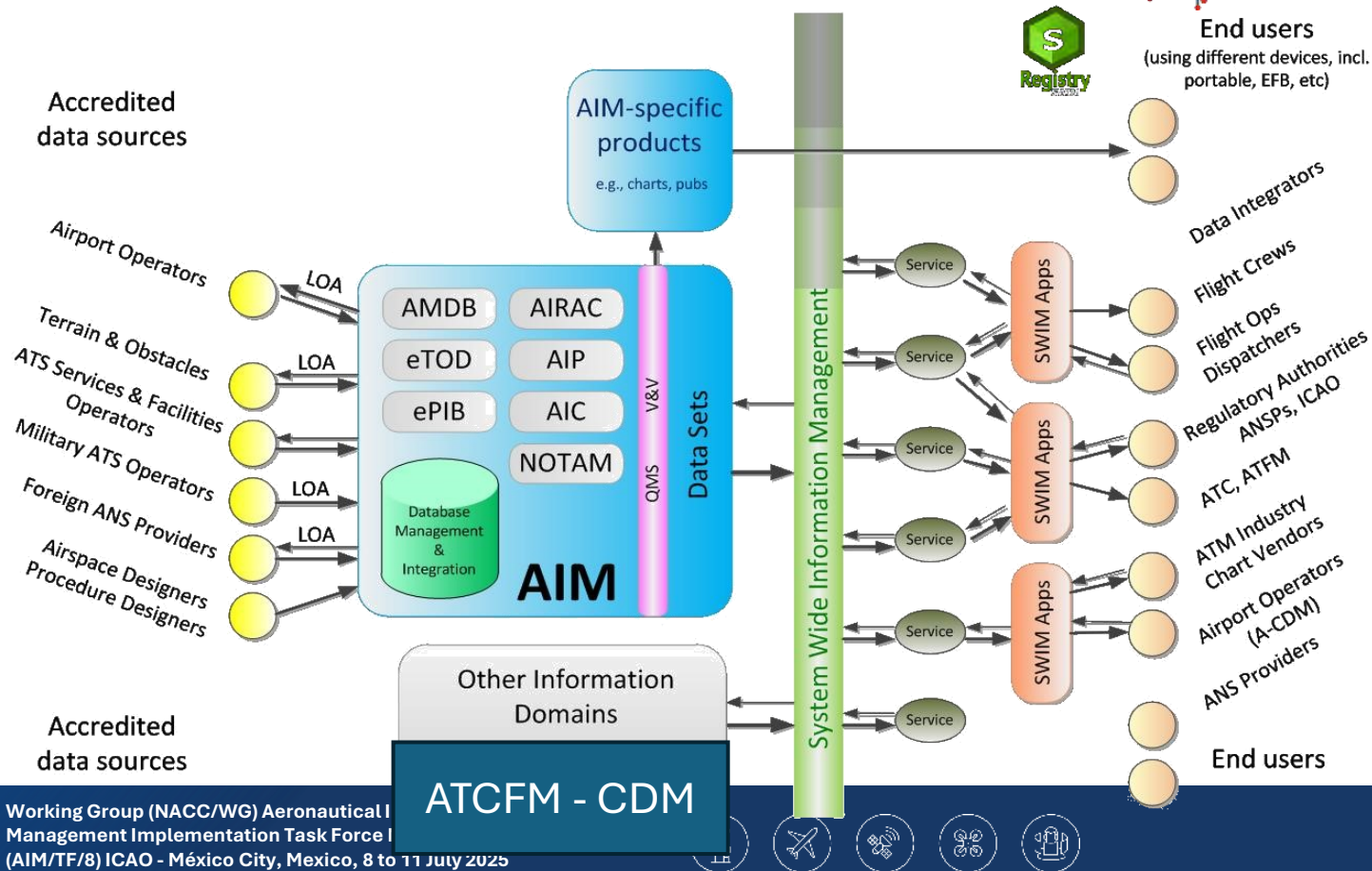
##### GEN 3.7.1 System-wide Information Management (SWIM) Registry(ies)/Information Service Overview(s)

When SWIM registries are used, the corresponding Uniform Resource Locator (URL) of each registry is provided. Otherwise, a list of the URLs where information service overviews can be found is provided.

*Note.— SWIM registries provide a list of available information services with corresponding information service overviews.*



# The future Digital AIM orchestrating the Data



## Certificate



# SWIM paradigm used in AIM environment and System

## For machine processing

- AIP Data Distribution Service(Pub/Sub)
  - Distribute AIP data and Obstacle data on AIRAC cycle
  - AIXM5.1.1
- Digital NOTAM Distribution Service(Pub/Sub)
  - Distribute Digital NOTAM
  - AIXM5.1.1
- Digital NOTAM Request Service(Web-API)
  - Provide Digital NOTAM
  - AIXM5.1.1
- Package Request Service (Web-API)
  - Provide Aeronautical Information and Weather Information

## For Human reading

- Digital NOTAM Request Service
  - Browse Digital NOTAM
- AIP File Download Service
  - Download AIP PDF files, etc.
- AIP Browsing Service
  - Browse AIP
- Airport/Airspace Profile Service
  - Browse Flight Information, Aeronautical Information, and Weather Information related to airports/airspace.

# SWIM - Mapping with IDS AIRNAV SOLUTIONS

SWIM Families	IDS AirNav Solution
Aeronautical Information Exchange	<b>Data Distribution Services</b> for: <ul style="list-style-type: none"><li>• Aeronautical Feature Services</li><li>• Aerodrome Mapping Services</li></ul> <b>CRONOS</b> for: <ul style="list-style-type: none"><li>• Digital NOTAM</li></ul>
Meteorological information exchange	<b>CRONOS &amp; UBIMEX</b> (iWXXM support)
Cooperative network information exchange	<b>B2B Gateway</b> (NM Integration) <b>CRONOS Evolution</b> (FF-ICE support)
Flight Information Exchange	<b>B2B Gateway</b> (NM Integration) <b>CRONOS Evolution</b> (FF-ICE support)



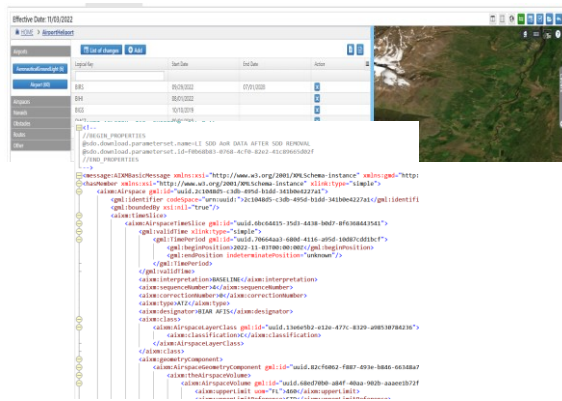


# Digital data Exchange - Aeronautical Information Exchange : AIM portal



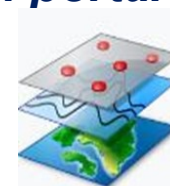
Origination Portal

- ➔ Workflow Management
- ➔ Automatic Change Request creation from AIXM5.1 file



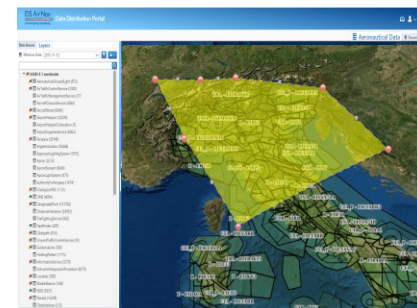
WADE

- ➔ Aeronautical Data editor
- ➔ Access to AeroDB for visualization and data editing
- ➔ Integrated WF , task processing and management
- ➔ Automatic generation of data changes from file
- ➔ Import/export AIXM5.1 data



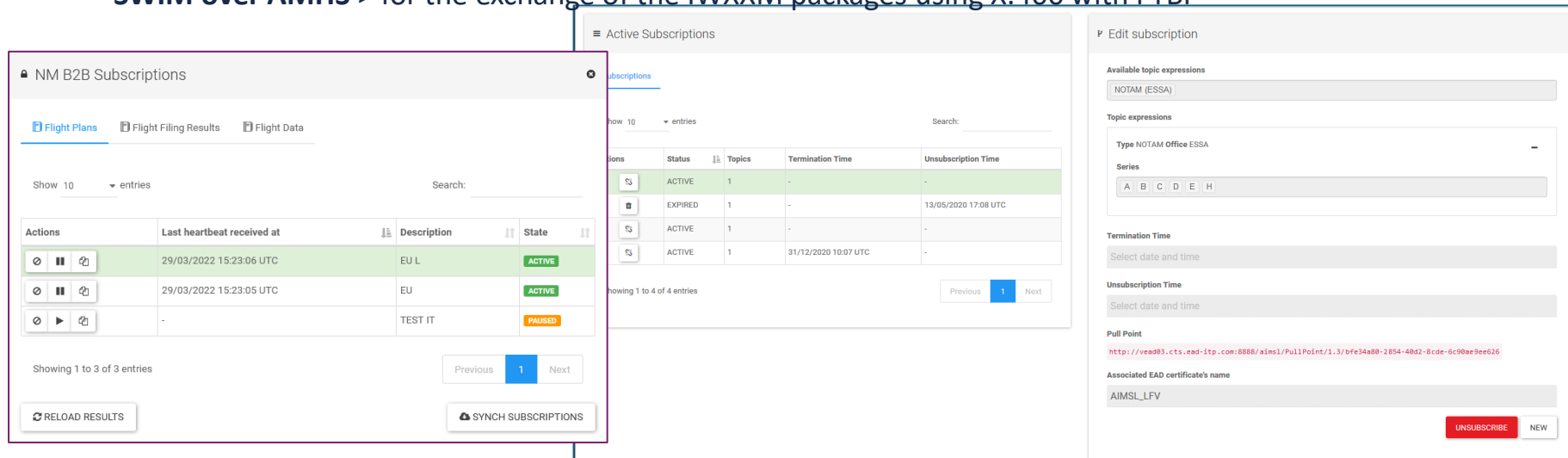
Data Distribution Portal/Service

- ➔ GIS Data distribution filtering & Export AIXM5.1, AIP Data Set
- ➔ Integration with service distribution (SWIM)












# SWIM – CRONOS Interoperability

- **CRONOS allows integration with SWIM services like:**
  - **EAD AIM-SL** > for communication and exchange of “dynamic” aeronautical information (TAM) with EAD
  - **EAD PAMS** > for the download of Aeronautical Information Publications and Charts from EAD
  - **Eurocontrol NM B2B** > for the preparation, filing, and management ATS packages by means of Network Manager B2B
  - **SWIM over AMHS** > for the exchange of the IWXXM packages using X.400 with FTBP



The screenshot displays the 'NM B2B Subscriptions' interface. It features a table of active subscriptions with columns for Actions, Last heartbeat received at, Description, and State. The table shows three entries: two 'ACTIVE' and one 'PAUSED'. Below the table, there are navigation controls (Previous, 1, Next) and buttons for 'RELOAD RESULTS' and 'SYNCH SUBSCRIPTIONS'.

On the right, the 'Edit subscription' panel is visible, showing details for a subscription named 'NOTAM (ESSA)'. It includes fields for 'Available topic expressions', 'Topic expressions', 'Termination Time', 'Unsubscription Time', and 'Pull Point'.

Actions	Last heartbeat received at	Description	State
  	29/03/2022 15:23:06 UTC	EU L	ACTIVE
  	29/03/2022 15:23:05 UTC	EU	ACTIVE
  	-	TEST IT	PAUSED

Showing 1 to 3 of 3 entries

RELOAD RESULTS





SYNCH SUBSCRIPTIONS

Active Subscriptions

Subscriptions

how 10 entries

Search:

Subscriptions	Status	Topics	Termination Time	Unsubscription Time
	ACTIVE	1	-	-
	EXPIRED	1	-	13/05/2020 17:08 UTC
	ACTIVE	1	-	-
	ACTIVE	1	31/12/2020 10:07 UTC	-

Showing 1 to 4 of 4 entries

Previous 1 Next

Edit subscription

Available topic expressions

NOTAM (ESSA)

Topic expressions

Type NOTAM Office ESSA

Series

A B C D E H

Termination Time

Select date and time

Unsubscription Time

Select date and time

Pull Point

<http://vead03.cts.ead-ftp.com:8888/aimsl/PullPoint/1.3/bfe34a88-2854-48d2-8cde-6c90ae9ee626>

Associated EAD certificate's name

AIMSL\_LFV

UNSUBSCRIBE NEW

# CRONOS Flight Plan Module and SWIM Service

## B2B Services are an enabler for more efficient operations

- **Flight Plan Preparation** services help an Airspace User to request the most efficient Flight Trajectory, based on criteria such as
  - Distance
  - Fuel
  - Charges
  - Duration
  - operational airspace structure
  - Airspace availability: actual traffic synchronization
  - Callsign de-confliction
- **Flight Plan Filing** services help an Airspace User to request the proper addressing and distribution
- **Flight Plan Management** regulates the effective operation start



- Route Assistance
- Validate FlightPlan
- Propose Routes



- File New Flight
- File Flight Updates
- Retrieve Filing Status



- Query Flights by Keys
- Retrieve Flights
- Submit Flight Confirmation
- Slot Improvements

# CRONOS Flight Plan Module and SWIM Service

**FPL Proposal Create**

VALIDATE | CANCEL | SAVE

Proposal number:

1 2 3

100 (Default) | 100 (Default)

Route and transparency | Equipment and capabilities | Search and rescue | Transmission information

Item 1  
Fullname  
YTCRIM

ICAO Route  
Lima 000 Lima

ICAO Code

Item 6  
Flight Rules  
1. Instrumental Flight Rules

Flight Type  
10. General Aviation

Item 9  
Altitude Marker

Result Type  
1. No

enav group - Working Group 8 AIPs and SWIM

**CRONOS 02.01.014**

FPL Query

Search results

Autos refresh

Active	Collage	ANSP	ENR + ENRT	ATN	Post Slot Status	SPS Status	LIM	Profile
1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10

**FPL Consulta**

Resultados da pesquisa

Autos refresh

Avião	Indicativo	Dep AD	Dest AD	Dep Mês	ETOP	ATN	Post Slot Status	SPS Status	LIM	Comment	Nota	Grado per	Rules & Type
1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10	10	10	10	10

Mostrando para de 100 entradas

Ampliar 1 2 3 4 5 6 7 8 9 10 Seguir



Swim Yellow Profile



# CRONOS / Eurocontrol NM Service interoperability

## Preparation

CRONOS 02.01.016

SUGGESTED ROUTES

This service offers alternatives only for the portion of the route inside the european IFPS-Zone

Max Proposed Routes  
5

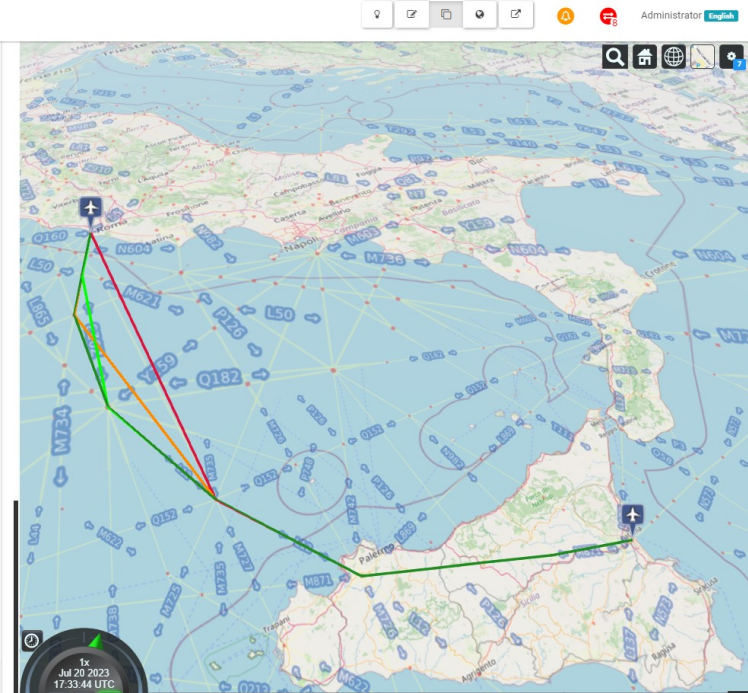
LOAD SUGGESTED ROUTES

	Route Color on Map	Distance (NM)	Consumed fuel indicator (Kg)	Total EET (HH:mm)	Charges indication (€)
<input checked="" type="checkbox"/>	-	342	2686	00:56	474
<input checked="" type="checkbox"/>	■	343	2685	00:56	474
<input checked="" type="checkbox"/>	■	349	2715	00:56	474
<input checked="" type="checkbox"/>	■	350	2722	00:56	474
<input checked="" type="checkbox"/>	■	352	2726	00:56	474

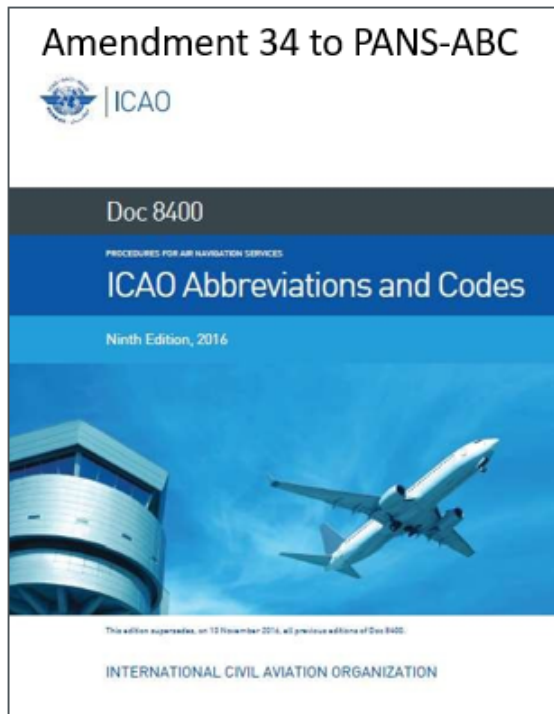
SHOW ALL ROUTES ON MAP

< PREVIOUS

NEXT >







**Applicable on 28 November 2024**

**Applicable on 20 November 2021**

**E**

**eFPL**

Filed flight plan exchanged via flight and flow — information for a collaborative environment (FF-ICE) services

**F**

**FPL**

Filed flight plan exchanged via aeronautical fixed service (AFS)

**P**

**PFP**

Preliminary flight plan

## THE NOTAM CODE — DECODE

WG Glider flying, paragliding or hang gliding

gld fly/paragliding/hang gliding

...

WP Parachute jumping exercise, paragliding or hang gliding

pjc/paragliding/hang gliding

4) if applicable, addressing instructions for FF-ICE services.



# SWIM/FF-ICE services

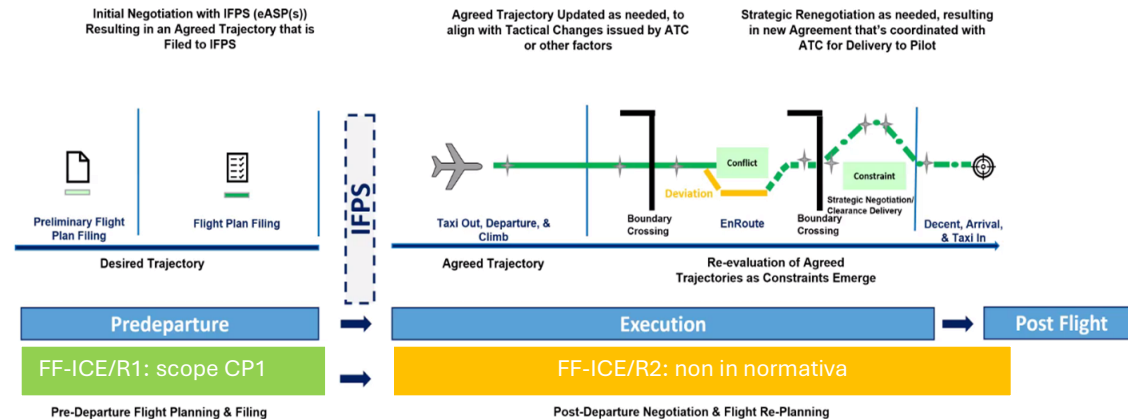
**The Release 1 (FF-ICE/R1)** refers to the pre-flight phase and includes:

- The submission of the flight plan in the new eFPL format (after a validation by the AUs)
- The distribution services of the flight plan and related updates, which will have to be implemented by the ATM operating systems (primarily FDP)

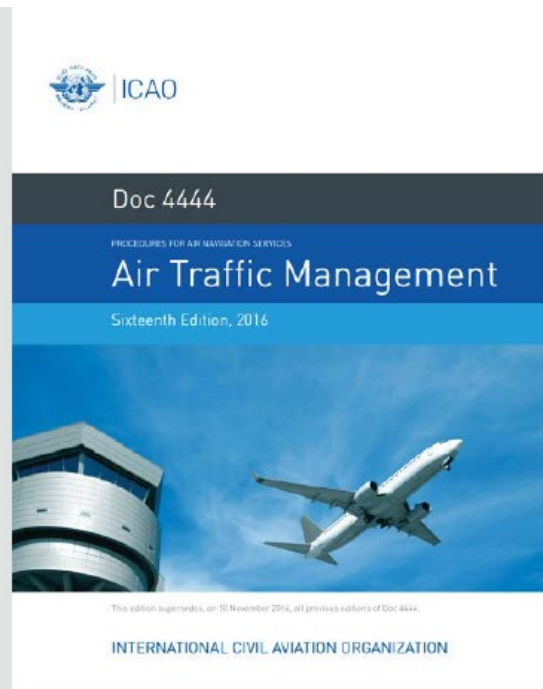
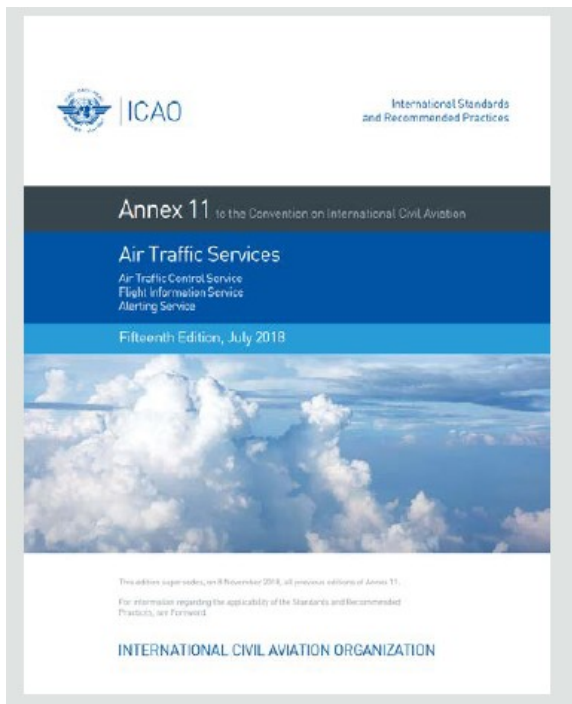
**Regulation introduces the requirements for the implementation of FF-ICE R1 services:**

- regulating the use of certain services by the Stakeholders, including the ANSPs and the operational use of the data acquired
- First phase of the transition from ICAO FPL 2012 to eFPL

**The Release 2 (FF-ICE/R2),** provides for exchanges of information in the "execution" phase and "strategic" negotiation of the flight plan



# Traffic complexity and ATCFM measure



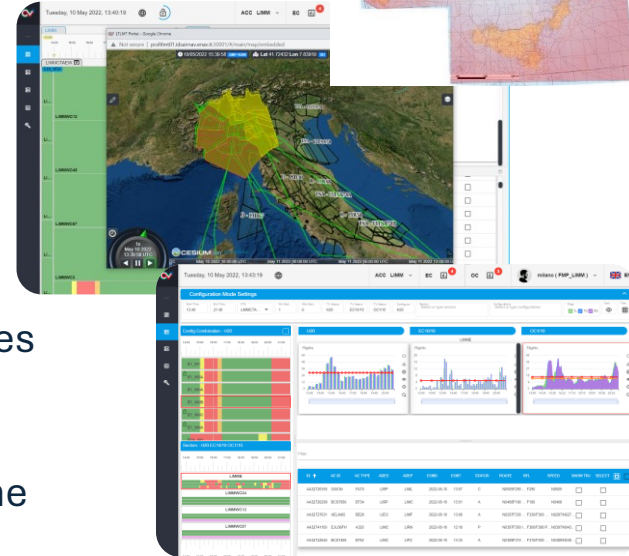
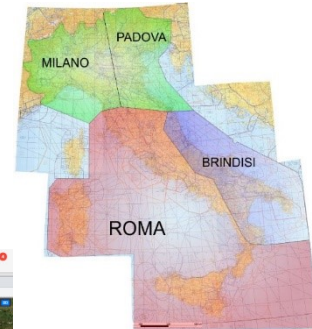
# Traffic complexity Tool – Main functionalities

**Management of predefined airspace configurations**

**Enhanced Short Terms ATFCM Measures**

**Automated Support for Traffic Complexity Assessment**

- Provides updated information on demand status for each sector configuration basing on traffic from local systems (FDPs\*) or remote systems (NM B2B services, A-CDM\*);
- Provides ranked configurations of ACC room considering rostering, traffic and airspace availability;
- Identify and select ATFCM measures to manage traffic volumes flights;
- Estimate traffic complexity within sector in selected timeframe



# IDS AIRNAV Solution NOTAM – D-NOTAM and SWIM extend benefit

## Traditional NOTAM Management System

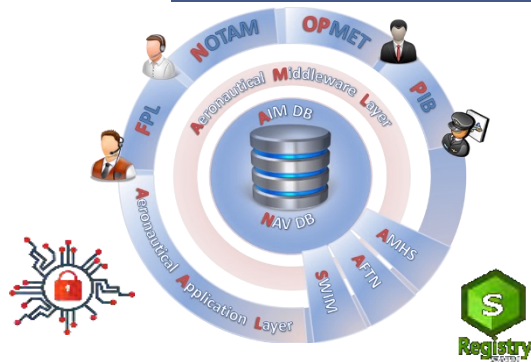
- NOTAM, OPMET, FPL management & dissemination
- minSDO AIXM Database
- Briefing Functionality
- High Availability & Replication
- AMHS / AFTN Interface



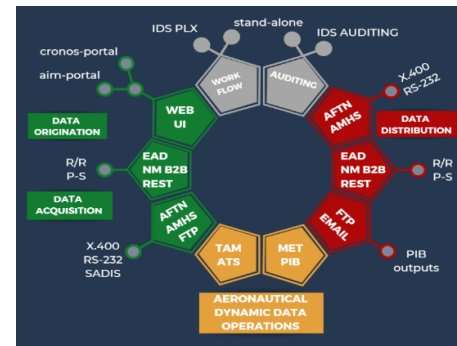
## Digital System

- Digital NOTAM management
- Full SDO AIXM5.1
- FIXM in FPL management
- Advanced Briefing
- SWIM interfaces

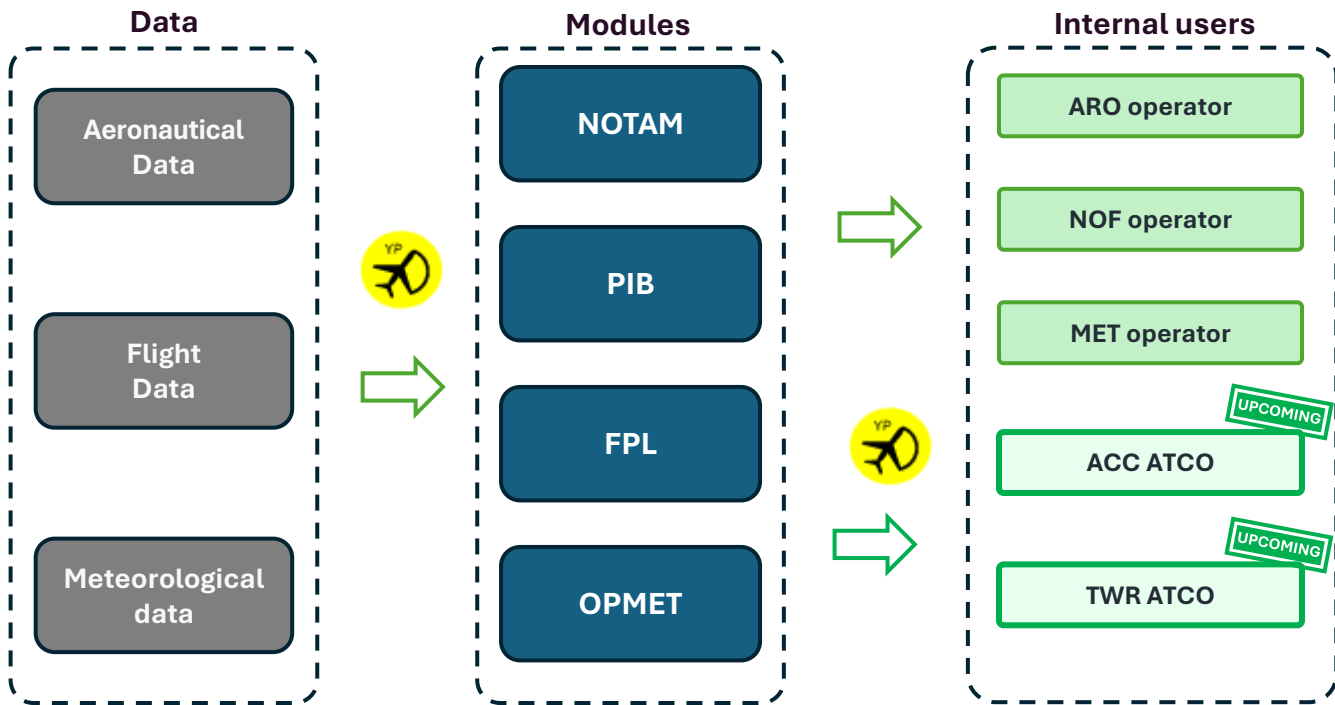
**CRONOS**  
Aeronautical Information Management System



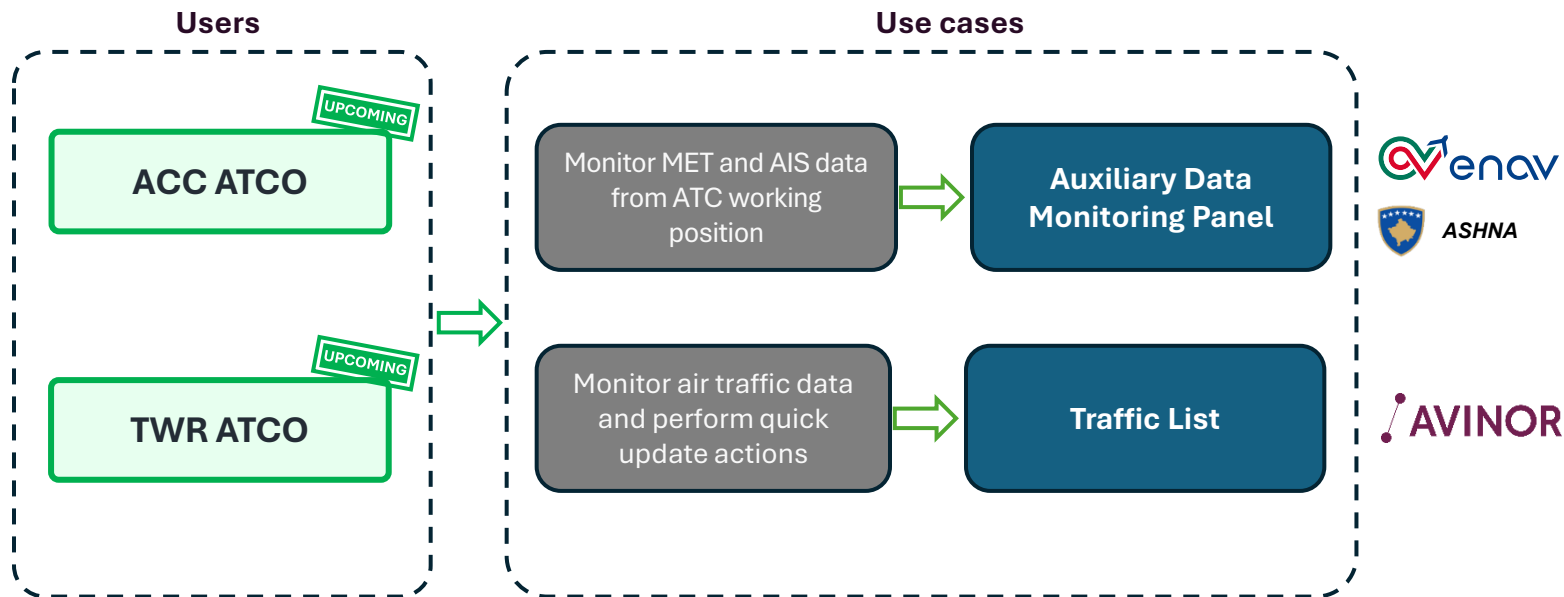
- Quality on NOTAM Proposal (ADQ)
- Advanced Briefing Functionality
- AIXM – FIXM – WXXM
- SWIM – AMHS – AFTN networks
- High Availability Architecture
- Dual Environment



# Evolutions and benefits for internal users



# Evolutions use cases integration with ATM System







# Auxiliary Data Monitoring Panel (ADMP)

Meteorological data from airport sensors and local report

Meteorological forecast and observation bulletins

Weather charts

SNOWTAMs

NOTAMs

ATFCM measures and real-time FUA activation

Operational documents repository



read-only data and new colors suitable for operational rooms



Having main panel always on MET data, auxiliary panel allows search of NOTAM, SNOWTAM, OPMET, Charts, WRNG and documents. Live messages can be sent from Supervisor to ATC working positions.



# Traffic List

New dedicated FPL view for ATC

Integration with ATM system messages

Auto-update of HMI with latest data

Integration with strip printers

Creation of No FPL Movements

Shortcut buttons for message creation

Notification for WRNG messages

The screenshot displays the Traffic List interface with several overlapping windows and a sidebar menu.

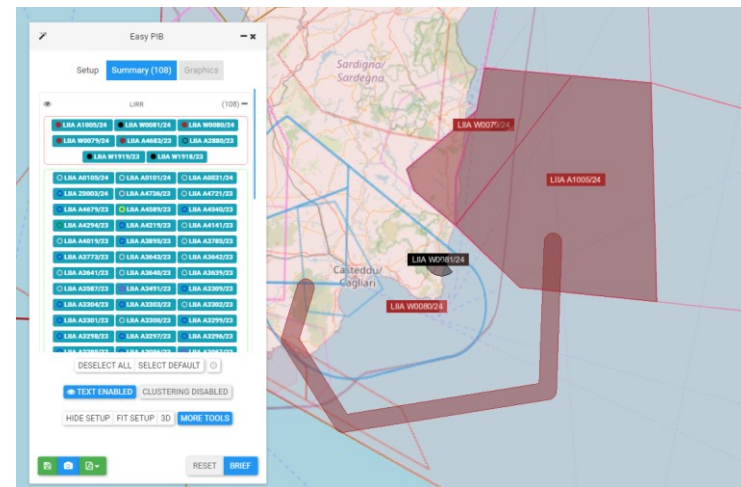
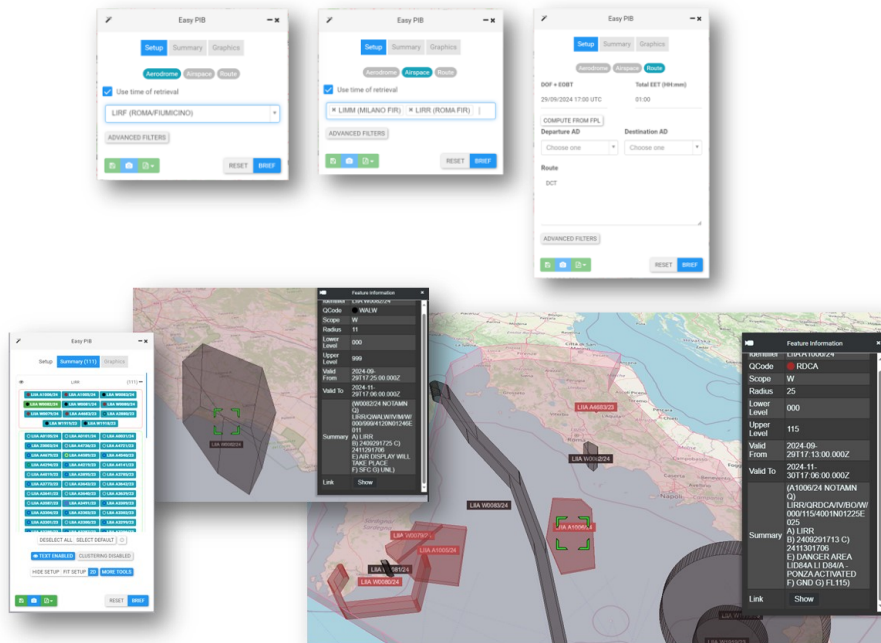
- Sidebar Menu:**
  - REA
  - DLA
  - CNL
  - DEP
  - ARR/DIV
  - Divert
  - Confirm Departure
  - Hide
- Send DEP Window:**
  - ITY123
  - ENBR-LIRF
  - DOF/240717 EOB 0800 CTOT 0815
  - Departure Time: 08:08
  - Destination addresses: EUCHZMFP, LIRFZPZX, ENBR20ZK
- Flight Data Table:**

Action	Callsign	Time	A/C	ADEP	ADES	CTOT	LSH	Status	FR	Lev	Route
✕	ITY123	08:08:00	A320M	ENBR	LIRF	08:15	SAV	Filed	IS	F320	STD DCT PEVB DCT RASV...
✕	KES3	A 12:00	2 P28AL	ENXK	ENBR						
- Print flight strip Window:**
  - Select template and printer for flight strip
  - ITY123
  - ENBR-LIRF
  - DOF/240717 EOB 0800 ETA 0910
  - Flight strip template: DEPARTURE IFR
  - Printer: PRTTWR1
- Flight Data Form:**
  - 2#ACTYPW SPEED SSR CTOT
  - 1#CALLSIGN
  - 5#ADEP EOB 7
  - 6#ADES ETA 15
  - 9#ROUTE
  - 11#LEVEL 13#ST S/RMK
- FPL Office Window:**
  - FPL Office
  - No FPL Traffic
  - + Create
  - Q Query
- Create new no FPL Traffic Window:**
  - VALIDATE CLEAR SAVE
  - Flight Data: Callsign (\*), REG, Flight Type (\*), Departure Aerodrome (\*), Destination Aerodrome (\*), Aircraft Number, Aircraft Type
  - Assignment information: ETD (\*), ETA (\*), Endurance, Wake Turbulence
  - Buttons: Search, Reset, Create No FPL Traffic

New page in CRONOS Portal with only data affecting ATC activates and dynamic auto refresh mechanism with buffer on current time



Implementation of new panel for generation of “**easyPIB**” (or electronic PIB) directly from map with possibility to select scenarios: Aerodrome, Area, Route

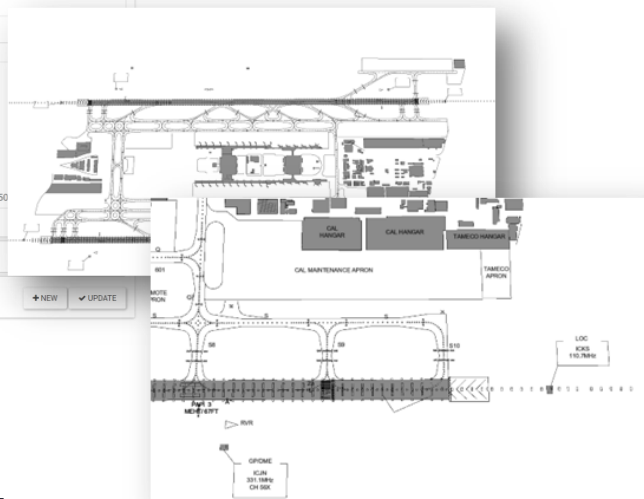
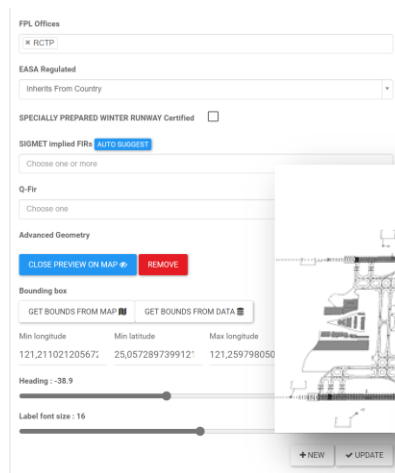
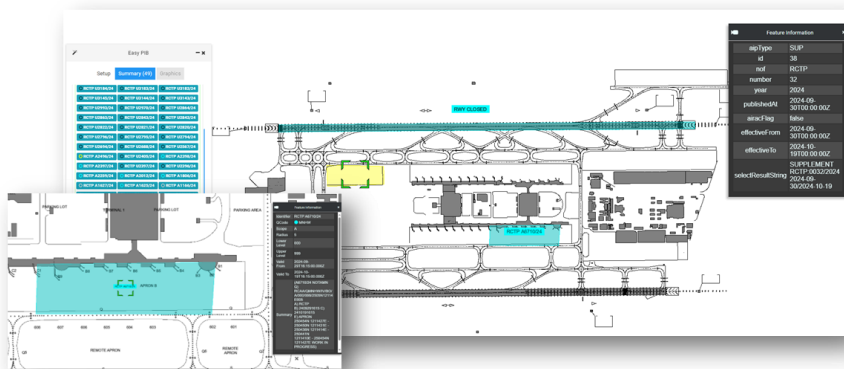


NOTAMs included in ePIB are displayed on map with **accurate geometry** taken from SDO Linkage or item E parsing. Item E parsing can be enabled to extract accurate geometry from foreign incoming NOTAMs.

ePIB shows by default 2D or 3D **warning NOTAMs** on airspace scenario with possibility to see and activate enroute NOTAMs on demand

# ePIB Aerodrome Scenario

ePIB shows by default NOTAMs with **accurate geometry** scope A and AE on Aerodrome scenario with possibility to see and activate other NOTAMs on demand



For each airport the aerodrome map can be uploaded in **geojson** or **DXF**

# Benefits for AIS/AIM using AIXM via SWIM

Functions	Possible improvements	Potential benefits
<b>Digitalization of aeronautical information</b>	Automate the processing of NOTAM (Notice to Airmen) information	<ul style="list-style-type: none"> <li>Automate coordinate tracking on the ASD and trigger alerts/notifications from digital NOTAMs to improve safety and efficiency.</li> </ul>
	Improve training scenarios and simulations	<ul style="list-style-type: none"> <li>It uses AIXM data to create realistic training scenarios for pilots and ATCs, improving their readiness through simulated environments that reflect real-world conditions.</li> </ul>
<b>Close interaction between unmanned aerial systems (new entrant UAS) and ANS service providers</b>	Real-time communication of airspace constraint states for UAS operations beyond line of sight (BVLOS)	<ul style="list-style-type: none"> <li>Automated sharing of airspace constraints in real-time with UAS operators to manage operations safely without receiving positive air traffic control</li> </ul>
<b>Exchange of digital information Dataset, Integrated Briefing and Exchange of aeronautical information through electronic charts</b>	Standardized aeronautical data format, optimized cross-system data exchange, real-time data sharing, and Efficient integration of data into electronic charts from different sources.	<ul style="list-style-type: none"> <li>It improves aviation safety and efficiency by simplifying data exchange and providing up-to-date aviation information to pilots and aircraft operators. Ensure accurate and timely presentation of aeronautical data through simplified map data integration.</li> </ul>

# Benefits for ATMs using FIXM via SWIM

Data Elements	Areas for improvement
Calculated Take-Off Time (CTOT)	<ul style="list-style-type: none"> <li>Optimize CTOT sharing within a SWIM environment to improve business continuity, asset management for airport operations, airspace users, passengers, and ATC operations, resulting in improved ATFM compliance and outcomes.</li> </ul>
Calculated Time (CTO)	<ul style="list-style-type: none"> <li>CTO enables flexibility of routes and reduces waiting patterns, resulting in reduced delays, fuel consumption, greenhouse gas emissions, and operating costs. In a SWIM environment, seamless sharing of CTOT ensures greater compliance and better ATFM outcomes.</li> </ul>
Target Off Block Time (TOBT)	<ul style="list-style-type: none"> <li>Accurate TOBT forecasts improve the passenger experience and reduce taxiway congestion. Predictable and less stressful journeys, fewer delays, and minimized risk of aircraft delays due to taxiing.</li> </ul>
Target Take Off Time (TTOT)	<ul style="list-style-type: none"> <li>Use TTOT in a SWIM environment for precise sequencing of starts, reduced runway congestion and fuel consumption, and improved ATFM compliance and results. Share TTOT seamlessly to extend tactical planning for short-haul flights, further improving ATFM compliance and outcomes.</li> </ul>
GUF1 vs Callsign	<ul style="list-style-type: none"> <li>The ICAO alphanumeric callsign can be easily used by the ANSP and the airport operator uses the IATA callsign by referring to a common GUF1</li> <li>This improves in-flight safety by reducing the similar-sounding call sign without manually referencing flights from the ICAO alphanumeric call sign to the IATA call sign</li> </ul>



# Benefits for Aeronautical Met using IWXMM through SWIM

Data Elements	Areas for improvement
Terminal Aerodrome Forecast (TAF)	<ul style="list-style-type: none"><li>• Operational contingencies: Airlines use TAF for contingency planning. If a significant weather event is forecast, airlines can prepare for potential diversions, alternative routes, or additional fuel reserves</li><li>• Optimal Altitude Selection – TAF includes data on predicted cloud heights and turbulence levels, helping flight crews select the optimal cruise altitude for a smoother and more fuel-efficient flight</li></ul>
Significant Weather Information (SIGMET)	<ul style="list-style-type: none"><li>• Integration with cockpit systems: Aircraft equipped with advanced avionics systems can receive and display SIGMET information directly in the cockpit, allowing pilots to make real-time decisions based on the latest weather data</li><li>• Precise geographic information: SIGMETs include precise geographic coordinates and altitudes where hazardous conditions occur, allowing pilots and ATC to accurately pinpoint affected areas</li></ul>



# SWIM: FF-ICE and eFPL

- ANSPs are impacted by the use of Extended Flight Plan (eFPL) data in their operating systems
- The eFPL is a new flight plan format, based on the FIXM data model and accessible via B2B services.
- When fully operational, the eFPL will replace the use of the ICAO FPL 2012 (no date has yet been set for the decommissioning of the old format)

**ANSPs need to upgrade their ground systems to process and receive eFPL, but also to make operational use of it**

*In particular, for ANSPs, the use of 3 B2B services of the NM is envisaged:*

- **Publication Service:** allows you to obtain the FF-ICE flight plan, based on specific filters on events
- **Flight Data Request Service:** Allows you to obtain information about a particular FF-ICE flight plan
- **Notification Service:** B2B NM service that supports sending notifications of flight-related events (currently departure and arrival events only)
- **.. and for AROs**
- **Filing Service:** allows the submission of the flight plan in eFPL format



# Conclusion

- To improve information sharing in an increasingly data-rich environment, it is necessary to improve the conventional system of information sharing:
- **FPL2012 -> eFPL - FF-ICE**
- **AFTN, FIXM, AIXM, and IWXXM email exchanges via SWIM**

Collectively, improve the accuracy of data sharing among aviation stakeholders to enable insight into trajectory-based operations (TBOs) and gate-to-gate optimization



## CRONOS implementations

# NAVIAIR

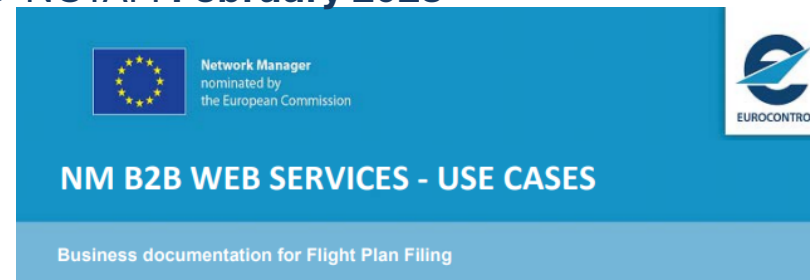
→ September 2022:

CRONOS Flight Module and its SWIM B2B service interface received Technical Acceptance by Eurocontrol Network Manager



→ Italian Air Force deployment of «SAIP» platform as enabler for internal re-organization (FPL & NOTAM management system)

→ ENAV went live with Notam / D-NOTAM **February 2023**



## IDS CRONOS in 2018-19 - 2023 Solutions

### LFV ISAVIA NAVIAIR ADQ 15 – L-CAPS :

- commissioning of NOTAM, OPMET, Briefing system:
- fully Integrated aeronautical dynamic data management system
- Interoperable with IDS PLX, AeroDB, Auditing, Identity Manager
- REST API for other services' interoperability
- AFTN Interface
- NOTAM, OPMET, PIB modules
- Integrated with ECTRL-Network Manager
- PIB Library EAD – AIMSL integrated
- Min-SDO Geography import from AIXM5.1

### AVINOR N-AIS replacement and SWIM program:

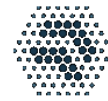
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**ISAVIA ANS**  
Air Navigation Services



# Information Management as a component of the future ATM Operational Concept



**COFLIGHT**  
CLOUD SERVICES

## Information Management as a component of the future ATM Operational Concept

