

AIM, key element of the GANP

WELCOME TO THE GLOBAL AIR NAVIGATION PLAN PORTAL

The GANP Portal is a web portal where all aviation stakeholders will be able to find the most relevant information related to the GANP



D-AIM

BBBs – Quality-assured product-centric Aeronautical Information Services

B1- DAIM - Service Improvement through enhanced data quality and digital exchange and processing of information

B2-DAIM - Service improvement through fully digital aeronautical information exchanged through a SWIM infrastructure and new information required to support new users

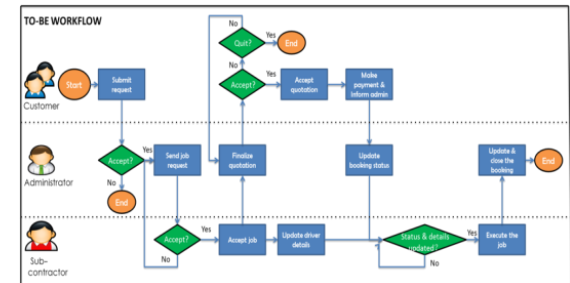
AIM : what are we addressing ?

- With AIM we are
 - Raising the focus on data and information
 - Raising the focus on the need for quality-data from authoritative sources
 - Introducing aeronautical information in digital format
 - Raising the focus on the need for collaborative environments among stakeholders for enhanced quality services



EXPERIENCE IN AIM IMPLEMENTATION

- **Paper to digital = several (r)evolutions**
 - **Technical** : databases, data models, GIS, etc.
 - **Cultural** : think data, not paper products
 - **Organizational** : new functions (eg data manager)
- **The cornerstone : data quality**
 - An **end-to-end** process
 - A **collaborative** approach
 - **Continuous** improvement
- **AIM benefits and opportunities**
 - **Interoperability**, higher efficiency
 - Enabler of **ATM evolutions**
 - **Added-value services** for end-users



AIS to AIM... to SWIM

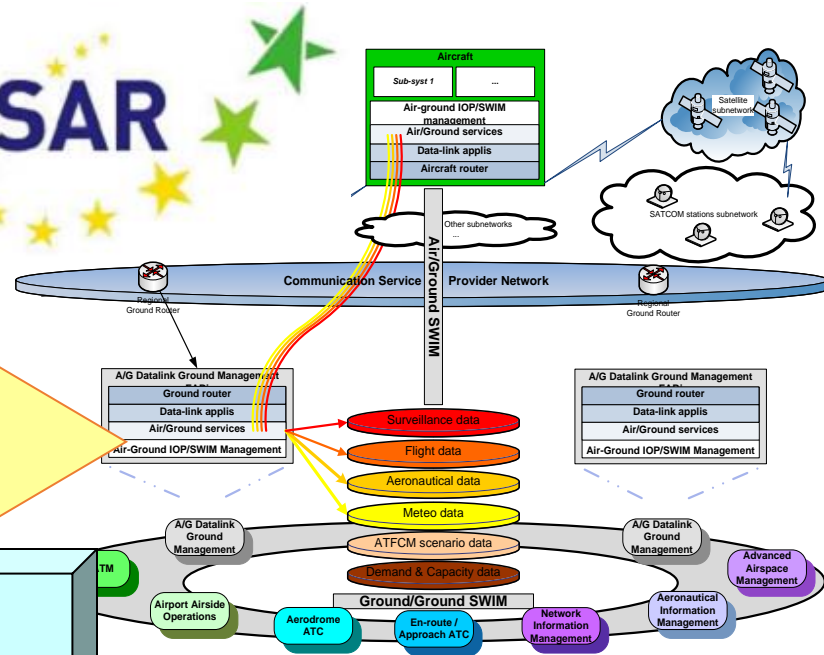
AIS

Go Digital

- Quality assured
- Interoperable
- Shared
- Timely

Evolution to AIM to prepare System Wide Information Management

SESAR



Go SWIM



AIM definition

The dynamic, integrated management of aeronautical information through the provision and exchange of quality-assured digital aeronautical data in collaboration with all parties

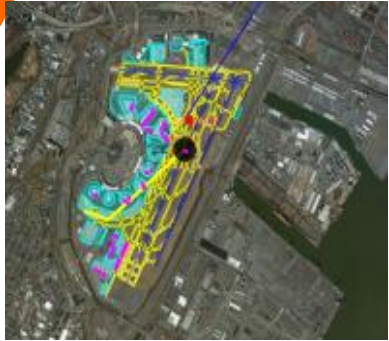
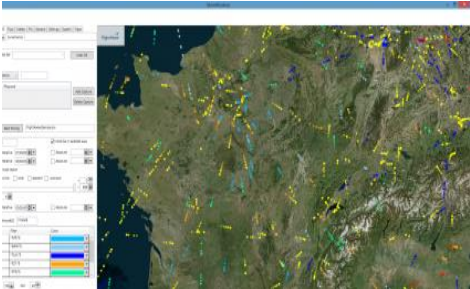
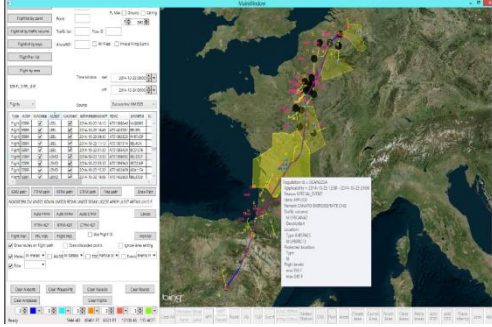
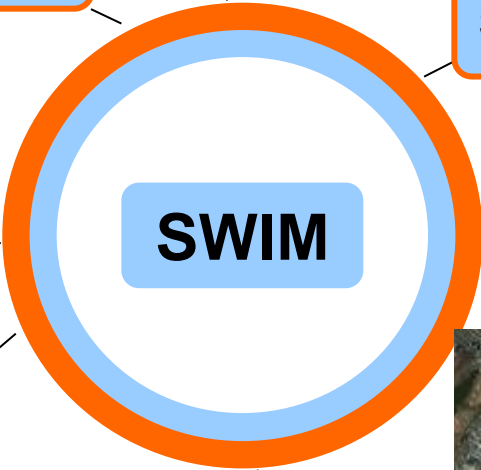
AIM "into" SWIM



AIS



AIM



SWIM AIM... what does it mean?



SWIM AIM

Leveraging SWIM to provide increased opportunities to access and integrate aeronautical information with other information domains to contribute to complete situational awareness.

Why?

- Disseminating aeronautical information via SWIM will allow:
 - **Airspace users** to have greater access to quality information for decision support
 - **Service providers** to operate within information-rich environments that will allow optimization of services
 - **Regulators** to operate with robust and open safety systems, more easily integrated and monitored



SWIM AIM : what to do?

- SWIM AIM means taking additional steps, such as:
 - Apply service oriented architecture (SOA) to aeronautical information
 - Enable interoperable exchanges of aeronautical information
 - Integrate aeronautical information with other information domains
 - Facilitate implementation of effective feedback mechanisms to cope with users changing requirements



ICAO objectives

- To integrate the AIM domain into SWIM...



- Provisions on **data coding standards**, based on the work initiated by the AIXM community
- Provisions concerning **information services for aeronautical digital data sets** and associated updates

ICAO objectives

- To integrate the AIM domain into SWIM...



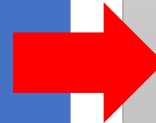
Digital Data sets



How to be provided as information services (**new ICAO provisions**)



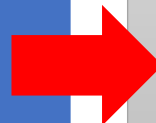
NOTAM



Replace the existing system with new information services (**ICAO provisions to be developed**)

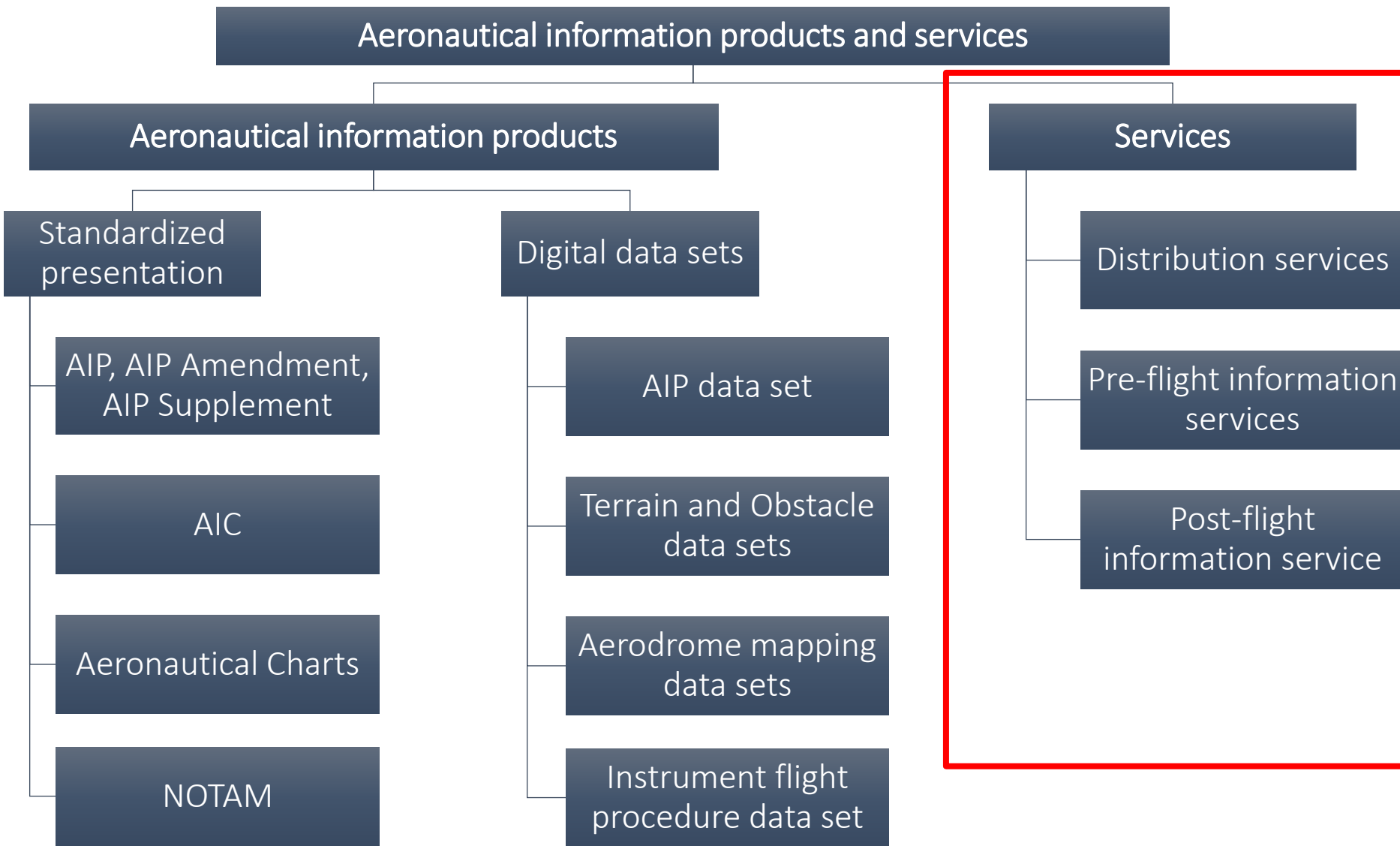


Aeronautical charts



Define the charting digital products and identify how to provide them as map information services (**ICAO provisions TBD**)

New Annex 15



Chapter 5 : Aeronautical Information Products and Services

SERVICE 1 (legacy)	SERVICE 2 (new)	OTHER SERVICES
<p><u>Provision of AI in a standardized presentation:</u></p> <ul style="list-style-type: none">✓ AIP✓ AIP Amendments✓ AIP Supplements✓ AICs✓ NOTAMsAeronautical Charts✓ Electronic encouraged	<p><u>Provision of AI as digital datasets:</u></p> <ul style="list-style-type: none">✓ New! AIP data sets✓ New! IFP data sets✓ Terrain data sets✓ Obstacle data sets✓ Aerodrome Mapping data sets <p>New data sets: recommended</p>	<p><u>Distribution of AI</u></p> <ul style="list-style-type: none">✓ Use of internet is recommended <p><u>Pre-flight Service</u></p> <ul style="list-style-type: none">✓ Relocated text <p><u>Post-flight Service</u></p> <ul style="list-style-type: none">✓ Relocated text
Continuity	Evolution	Improvement

Chapter 6 : Aeronautical Information Updates



- Legacy products updates: no changes
- NOTAM, as an update mechanism
- **Digital data-set updates** (generic requirements):
 - data sets to be amended as necessary;
 - permanent and temporary changes (long duration) as full data set or sub-set of data ;
 - full data-sets: the differences should be indicated;
 - temporary changes (short duration) – Digital NOTAM
 - updates to the AIP and the digital datasets shall be synchronized

The new AIS digital data sets

- Annex 15 (16th edition)
 - Digital data sets
 - AIP
 - Obstacles
 - Terrain
 - Airport Mapping
 - Instrument Flight Procedures
- New PANS-AIM
 - More detailed requirements
 - Based on data catalogue
 - Subjects
 - Properties
 - Sub-properties
 - Types
 - Description, data quality...

AIS Digital Data Sets provision



- Aeronautical information products:

- **standardised presentation** documents/messages (AIP, AIP AMDT, AIP SUP, AIC, aeronautical charts, NOTAM)
- **digital data sets.**

*"5.4.1.3 Recommendation. — **Global communication networks** such as the Internet should, whenever practicable, be employed for the provision of aeronautical information products."*

*Note: "Further guidance on digital data set distribution can be found in the Manual on System-wide Information Management (**SWIM**) Concept (Doc 10039)."*

Digital data provision services

- Dataset service



Minimal service

- Data feature service



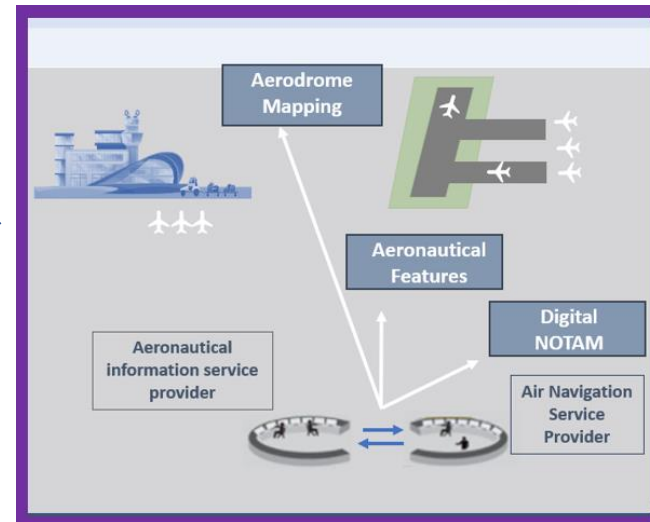
Complementary service

Example : SWIM AIM Services in Europe

- Implementation of AIM Information Exchange Services
 - Harmonized implementation



SWIM AIM Services



SWIM Service Ecosystem

Service Sources



Service Developments



Service Registry

