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AIM SG/5  
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# **Outcome of the Joint ACAO/ICAO EUR/NAT and MID ASBU Symposium**

**GANP 2019 changes related to AIM & SWIM**

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The Joint ACAO/ICAO Global Air Navigation Plan Aviation System Block Upgrades (ASBU) Symposium for EUR/NAT and MID Regions was held in **Marrakech, Morocco, from 10 to 13 December 2018**. The Symposium was organized jointly by the ICAO EUR/NAT and MID Regional Offices; and hosted by the Arab Civil Aviation Organisation (ACAO).

The Symposium was attended by:

- ❑ 125 Participants
- ❑ 14 States
- ❑ 10 International Organizations





- ✓ Raise awareness on the latest global air navigation developments, including the outcome of the 13<sup>th</sup> Air Navigation Conference
- ✓ Review the status of implementation of the ASBU Block 0 Modules in the EUR and MID Regions and address associated challenges based on lessons learned and best practices.
- ✓ Provide an opportunity to explore ways and means to support the implementation of the agreed air navigation priorities taking into consideration airspace users' requirements, fleet equipage, infrastructure, interoperability and inter-regional coordination, and address the Regional and National planning for ASBU implementation.
- ✓ Highlight the main changes that will be introduced in the GANP 2019 and showcase the different ASBU Threads through online demonstration using the GANP Portal.
- ✓ Initiate discussion on the planning for ASBU Block 1 implementation.



**Session 1.1:** Opening Ceremony

**Session 1.2:** Global Developments – Setting the scene

**Session 1.3:** ASBU Block 0 Implementation (Regional Perspective)

**Session 1.4:** Performance Based Approach/ Performance Framework

**Session 1.5:** ASBU Block 0 Implementation – FAA Analysis

**Session 2.1:** GANP 2019/ASBUs

**Session 2.2:** GANP 2019 ASBU Technology Threads

**Session 2.3:** GANP 2019 ASBU Information Threads

**Session 2.4:** GANP 2019 ASBU Safety Threads

**Session 3.1:** GANP 2019 ASBU Operational Threads

**Session 3.2:** GANP 2019 ASBU Operational Threads (Cont'd)

**Session 3.3:** ASBU implementation powered by State and regional coordination

**Session 4.1:** CBA in support of Assets deployment

**Session 4.2:** NextGEN in support of the GANP

**Session 4.3:** SESAR in support of the GANP

**Session 4.4:** Panel discussions on ASBU Implementation & Planning

**Session 4.5:** Closing Ceremony



- a) Some States are still facing challenges to implement priority 1 ASBU Block 0 Modules or have to adhere to different regional implementation regulations, which resulted in a delay on the implementation beyond the envisaged 2018 date.
- b) Difficulties to monitor the implementation of certain Modules such as B0-ACDM, B0-FRTO, B0-NOPS, etc. (difficulty to define implementation indicators/metrics/collect data).
- c) Considering the GANP (2019) changes, there will be a need to review the current methodology for ASBU B0 and a delay in regional planning for ASBU Block 1 implementation, which is supposed to start in 2019.
- d) Variety of ASBU implementation monitoring/reporting between the different Regions (different ASBU elements, indicators, etc.); thus lack of harmonization and impossibility to compare between different Regions. This is also directly linked to the Regional eANPs Volume III disparities.
- e) Lack of understanding and training needs related to the GANP/ASBUs at national level (CAAs, ANSPs, etc.) as well as reporting requirements.
- f) Performance monitoring vs monitoring the status of ASBU implementation
- g) Data exchange/interoperability and cyber security issues.
- h) Implementation decisions are not regularly supported by financial assessment tools (Business Case, Cost Benefit Analysis, Economic Impact Analysis etc.)



1. ICAO to develop a roll out implementation strategy for the GANP (2019), which includes guidance/training material (including CBT, workshops, seminars, etc.) to support States in the process of planning for ASBU implementation as well as guidance related to cost-benefit analysis and other financial tools.
2. ICAO HQ to work cooperatively with all Regional Offices in order to agree on a common approach for the harmonization of the ASBU implementation monitoring and reporting, to concur on a list of common implementation indicators, to transition to an online monitoring and reporting tool.
3. ICAO to ensure the timely availability of the necessary provisions to support the implementation of the GANP (e.g. SWIM).
4. ICAO and ACAO to continue organizing GANP/ASBU workshops/symposiums to share best practices and to assist States and aviation stakeholders in their related activities.



5. States are strongly encouraged to use the GANP portal (<https://www4.icao.int/ganpportal>) and familiarize themselves with all features available and provide feedback to ICAO ([ganp@icao.int](mailto:ganp@icao.int)) for further improvements, before its endorsement by the 40th session of the ICAO Assembly in 2019.
6. States are urged to take necessary measures to complete the implementation of the relevant ASBU Block 0 elements (in accordance with Regional and National Plans)
7. States are urged to provide the relevant ICAO Regional Office with necessary data for ASBU monitoring and reporting purposes at both regional and global levels, on annual basis.
8. In order to facilitate and expedite implementation, States are encouraged to conduct ASBU implementation workshops at national level.
9. States are encouraged to share their implementation experience and best practices in joint events to further enhance inter-regional coordination/harmonization.



10. States and all stakeholders are urged to work closely, in proactive manner through the relevant PIRGs subsidiary bodies, to initiate the planning for ASBU (B0 and B1) implementation taking into consideration the cross regional aspects.
11. States are urged to implement data exchange models (AIXM, FIXM and IWXXM) and digital datasets, taking into consideration the future upgrade/update of the exchange models, as critical steps towards SWIM implementation.
12. States and air navigation service providers (ANSPs) to perform a cost-benefit analysis (CBA), with stakeholders, when defining optimum solutions through the use of the ASBU framework taking into consideration the users' needs and the size and complexity of their air navigation system (volume of activities). NO SIZE FITS ALL!

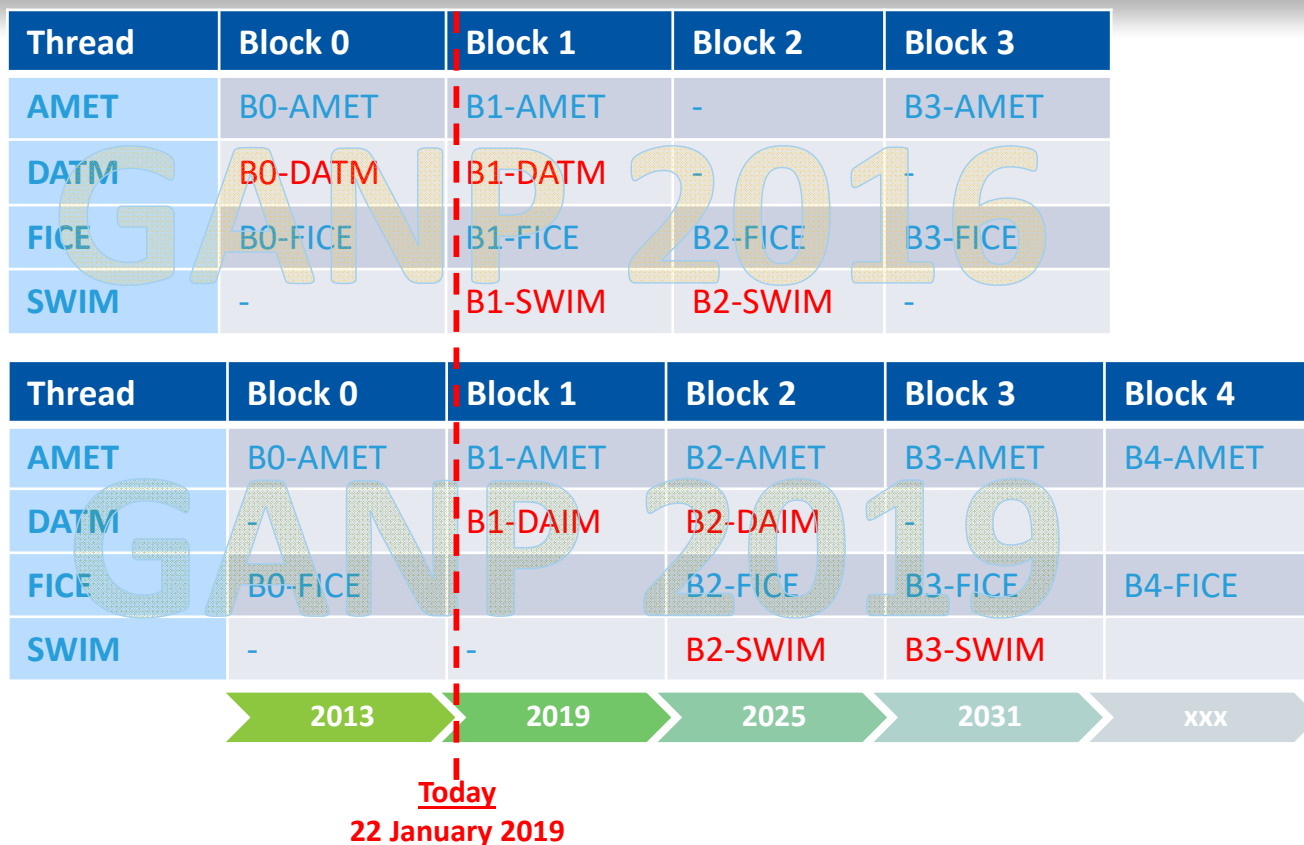




## **GANP 2019 Changes related to AIM and SWIM**



## PIA2 Schematic Diagram





# The Road towards SWIM

## Where we started

### B0-DATM

- WGS-84
- QMS
- AIRAC
- AIXM AIS Database
- eAIP
- Terrain & Obstacle Datasets (area 1 & 4)

## Where we should be soon

### B1-DAIM

- Quality-assured aeronautical information (WGS-84, WGS-84, AIRAC, Automation, SLA)
- Digital Datasets:
  - AIP datasets
  - Terrain datasets
  - Obstacle datasets
  - Aerodrome mapping
  - IFP datasets
- NOTAM improvements

## We will transition to

### B2-DAIM

- Dissemination of AI in SWIM environment
- AIM data requirements to support network operation
- AIM information requirements to support high airspace operation
- AIM information requirements tailored to UTM
- NOTAM replacement

### B2-SWIM

- Information Service Provision
- Information Service Consumption
- SWIM registry
- A/G SWIM for non-safety critical information
- Global SWIM processes

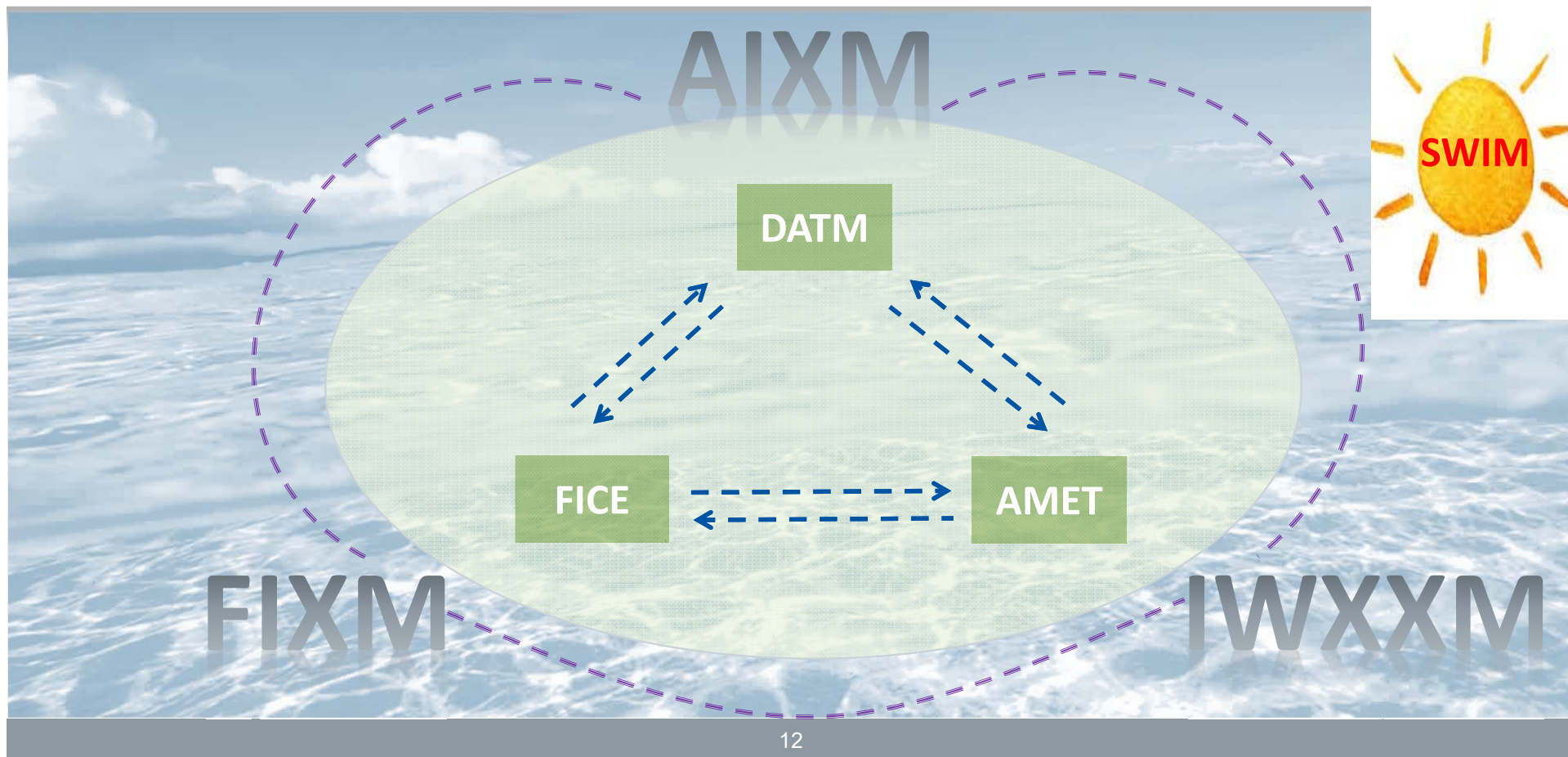
### B3-SWIM

- A/G SWIM for safety critical information





# SWIM = PIA2 Modules Integration





# Online Demonstration (GANP Portal)

<https://www4.icao.int/ganpportal>



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THANK YOU