



ICAO

UNITING AVIATION

EUROPEAN AIR NAVIGATION PLANNING GROUP (EANPG/59)
Combined with
EUROPEAN REGIONAL AVIATION SAFETY GROUP (RASG-EUR/06)

Outcome of Interregional APAC/EUR/MID SWIM Workshop
(EUROCONTROL, Brussels, Belgium, 2-4 October 2017)
(in support to WP04)

Christopher Keohan, Regional Officer, MET
Abbas Niknejad, Regional Officer, AIM/ATM

Paris, France, 30 October-3 November 2017



- Venue and date:
 - EUROCONTROL Headquarters, Brussels, Belgium
 - 2 to 4 October 2017
- Attendance
 - 138 Participants
 - 37 States, 6 International Organizations
 - 8 Industry exhibitors.
- Organizing partners:
 - ICAO APAC, EUR/NAT and MID
 - EUROCONTROL (Host)





Workshop Objectives

- The objective of the Workshop was to address the planning and implementation issues of the Performance Improvement Area 2 ASBU Modules related to AIM, ATM, MET, FICE and SWIM, including the pre-requisites for an efficient and timely implementation of the Block 1 Modules.
- The Workshop provided a forum to share experience and best practices, and addressed the challenges and lessons learned associated with the PIA2 Block 0 and Block 1 implementation.
- An opportunity provided to visit the Exhibition, which was organised concurrently with the Workshop to showcase industry latest developments.



- **Agenda Item 1: Workshop Introduction and set the scene**
- **Agenda Item 2: Global Developments**
- **Agenda Item 3: PIA 2 Block 0 Modules**
- **Agenda Item 4: PIA 2 Block 1 Modules**
- **Agenda Item 5: AIM/MET/ATM Information Services' Integration through application of SWIM**
- **Agenda Item 6: Regional planning and implementation**
- **Agenda Item 7: Wrap up and Conclusion**



- SWIM is a key driver for greater ATM system interoperability.
- SWIM is a key enabler for bringing improvements and benefits in terms of Safety, Efficiency and Environment by operational concept improvements.
- SWIM is a “Service Oriented Architecture” and its implementation is an evolutionary approach rather than revolution/initial perfection.
- SWIM is about services, not only data; SWIM leverages a single interface to receive multiple data products.



- The progress of implementation of Block 0 PIA 2 Modules is below expectation.
- SWIM is an enabler for the implementation of the GANP Block 1+ Modules.
 - GANP is under review (improved version for 2019)
- Latest operating versions and their future upgrades of the Exchange models are:
 - AIXM: current versions under operational use are 4.5 and 5.1 (latest version). AIXM 5.2 is planned for 2018 and 5.3 for 2020 or later.
 - FIXM: latest/current version is 4.0. 4.1.0 is planned for December 2017 and 5.0.0 for June 2019.
 - IWXXM: current version is 2.1. version 3.1 is planned for end of 2018.



SWIM Pre-requisites

- Completion of Block 0 implementation, as the key pre-requisite to transition to Block1, should be expedited.
- Implementation of exchange models in national databases (AIXM, FIXM, IWXXM, etc.) is a key enabler for SWIM, which should be considered by States/ANSPs.
- Data quality, automation, establishment of digital datasets and formal arrangements are critical pre-requisites for the implementation of SWIM.



- Data exchange/interoperability is a challenge that should be taken into consideration;
- Information overload for pilots and controllers; information is too unfocused; risk to miss important information; and sometimes hard to interpret (e.g. Field 10 in FPL);
- Delay in the implementation of Block 0 Modules;
- Need for additional guidance to implement Block 0 Modules;
- Data security/cyber security is a challenge that needs to be considered.



- Need for harmonized standardization and guidance in different aspects of SWIM. Global provisions should allow for regional/local customization while not being too permissive to avoid divergent implementations/interpretations;
- Development of digital datasets is important to achieve interoperability and implement SWIM;
- States/Stakeholders are encouraged to:
 - contribute to further SWIM developments, support global harmonization and standardization of SWIM; and
 - implement and share their best practices/lessons learned;



Recommendations

- Encourage States to learn from current SWIM implementation initiatives (SWIM services/applications), especially the FAA and EUROCONTROL experiences;
- B1 Modules and SWIM implementation timelines should be more realistic, taking into consideration the challenges at the national and regional levels, delays in the implementation of B0 Modules as well as the identified needs and expected operational improvements;



- Need for Regional SWIM Roadmap (if not already available);
- Need for appropriate awareness and training to build the necessary competencies; and
- Exchange models backwards compatibility should be considered in future SWIM developments.



- Inter/intra regional coordination in planning and implementation of SWIM will facilitate harmonized implementation
- Users should be involved in the identification of the needs and modeling of business processes (operational improvements/SWIM services).
- The workshop was successful in achieving its objective; and such inter-regional workshops/seminars should be conducted on regular basis.



- Participants thanked EUROCONTROL for hosting the Interregional Workshop and the generous hospitality as well as for the excellent cooperation and support provided.



The meeting is invited to:

- a) Encourage all States and Stakeholders to support and follow-up on the outcome of the Interregional SWIM Workshop; and
- b) Agree on the establishment of SWIM Project Team to:
 - i) development the EUR SWIM Roadmap considering the revised 2019 GANP;
 - ii) Benchmark best practices in SWIM implementation;
 - iii) Provide guidance and training;
 - iv) Monitor global development and promote SWIM in the EUR Region;
 - v) Review EUR implementation status; and
 - vi) Assist States in SWIM implementation in the EUR Region.



The establishment of a SWIM PT should also consider:

- a) Implementation of the recommendations provided by the Workshop;
- b) Various air navigation disciplines involved in SWIM;
- c) Geographic balance; and
- d) Existing groups such as Eurocontrol AIM/SWIM Team that is performing tasks in this area for the ECAC States.



Why	In order to develop and maintain an EUR SWIM implementation roadmap; and benchmark best practices in SWIM implementation; provide guidance to States in SWIM; monitor global development and promote SWIM in the EUR Region; review EUR status; and assist States in SWIM implementation in the EUR Region.
What	Establish EUR SWIM Project Team
Who	EANPG
When	November 2017



Draft EANPG59 RASG-EUR06 Conclusion/_ eanpg59rasgeur06wp04/1 – EUR SWIM Project Team

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG RASG-EUR:

- a) Establish the EUR SWIM Project Team;
- b) Conduct a provisional meeting for the EUR SWIM Project Team in 2018 in order to develop its draft Terms of Reference (TORs), work programme and members, to be presented to COG/71 for approval;
- c) Urges States to nominate their SWIM Focal Point to attend the provisional SWIM Project Team and further follow-up on the SWIM implementation;
- d) Report progress on those tasks to COG/EANPG meetings, as appropriate.



ICAO

UNITING AVIATION



ICAO

North American
Central American
and Caribbean
(NACC) Office
Mexico City

South American
(SAM) Office
Lima

ICAO
Headquarters
Montréal

Western and
Central African
(WACAF) Office
Dakar

European and
North Atlantic
(EUR/NAT) Office
Paris

Middle East
(MID) Office
Cairo

Eastern and
Southern African
(ESAF) Office
Nairobi

Asia and Pacific
(APAC) Sub-office
Beijing

Asia and Pacific
(APAC) Office
Bangkok



THANK YOU