



INTERNATIONAL CIVIL AVIATION ORGANIZATION

MIDDLE EAST OFFICE

MID SURVEILLANCE WORKSHOP

(JEDDAH, SAUDI ARABIA, 08-10 MAY 2011)

SUMMARY OF DISCUSSIONS

1. INTRODUCTION

1.1 The MID Surveillance Workshop was successfully hosted by the General Authority of Civil Aviation (GACA) in Jeddah, Saudi Arabia, from 08 to 10 May 2011. The workshop was attended by a total of 68 participants from 6 States and 2 International Organizations. Airbus, Boeing and EUROCONTROL participated as presenters through WebEx, where live online presentations were conducted followed by questions and answers session. The list of participants is available in **Appendix A** to this Summary of Discussions. Eng. Mohammed Al-Salmi, Vice President GACA for Air Navigation Services, and Mr. Jehad Faqir, Deputy Regional Director, ICAO MID Region, opened the workshop.

1.2 Mr. R. A. Gulam was the principle facilitator of the workshop, supported by Mr. Vaughn Maiolla, Technical Officer CNS/AIM Section of Air Navigation Bureau, ICAO Headquarters in Montreal, who delivered several presentations providing details on SARPS updates and the evolution of the aeronautical surveillance; he also provided an update on the Australian ADS-B experience.

1.3 The workshop was conducted with an objective to provide States in the Middle East Region, with a better understanding of evolving aeronautical surveillance and the development of new technologies to enhance the situational awareness. The objective also included the development of MID Region Surveillance strategy and the time lines for the ADS-B implementation.

2. DISCUSSIONS

2.1 The three days workshop was divided into nine working sessions; three sessions each day. On the first day of the workshop, participants were provided with basic presentations, which covered the objective of the workshop and the related MIDANPIRG conclusions on MID surveillance Strategy and data sharing to enhance situational awareness in the MID Region.

2.2 The first day presentations also covered the Evolution of aeronautical surveillance, MID REGION ANP FASID, "Surveillance part" and GANIS, Radar Performance and Comparison of aeronautical surveillance Systems. IATA presented the User Surveillance Requirements with regards to surveillance followed by two presentations from States highlighting their States activities on surveillance, the day was ended by a brain storming session the results of which were discussed the following days and were taken into account while developing the final outcome of the workshop.

2.3 On the second day, the workshop received detailed information on Mode S coordination issues which were thoroughly discussed and a live demonstration on the MICA application used by EUROPE AND MID was performed where the minimum requirement for the IC code allocation was highlighted. The participant also had good understanding of the different capabilities available in the tool, also the IC allocation cycle along with IC code conflict reporting and resolution screen where explained. Practical examples on the Multilateration and its use and requirement were then provided to the participants. The workshop then continued to receive States views, plans and requirements.

2.4 Through WebEx, AIRBUS provided a presentation on the Solution and roadmap of FANS and ADS-B on the airbus family fleet and the equipment being fitted in the airframes. Examples on the EHS mandate in Europe to fulfil the SESAR and Nextgen requirement was also highlighted, the new advances on the situational awareness in cockpit was also provided.

2.5 EURCONTROL presented through WebEx the ADS-B Out & ATSAW Deployment in Europe where the rule on the European Commission Single European Sky, Surveillance Performance & Interoperability Implementing (SPI IR) was explained. It was noted that SPI IR mandate supports the use of ADS-B and WAM. The workshop noted that ADS-B, WAM, ATSAW deployment ongoing under SESAR being the baselines and these will produce Rationalized high performance surveillance system in Europe.

2.6 On the third day of the workshop, Boeing presented through WebEx an update on the Boeing fleet and the participants had the views of the two major aircraft manufacturers and got better understanding of their plans and the future equipage planning. The presentation was dedicated to the ADS, and it covered ADS-B Out Regulatory Mandates. It was noted that Boeing will be meeting the various ADS-B mandates in Australia, Hong Kong, Singapore, other Asia Pacific Regulatory Agencies, Nav Canada, Eurocontrol/EASA draft rule and the USA.

2.7 The Boeing presentation and the discussions followed the presentation concluded that Boeing supports ADS-B Out and will meet ADS-B Out mandates, and the company is in continuous coordination with Air Navigation Service Providers (Canada, Australia, Europe, US) to ensure common airborne requirements global harmonization, the discussions also highlighted the need to engage with airlines and industry partners in the rulemakings around the world.

2.8 On the Airborne side Mr. Vaughn Maiolla provided further details that ICAO is addressing through the ASTAF (Airborne Surveillance Task Force). The mission of the task force is to develop a manual on Airborne Surveillance, covering the implementation of airborne surveillance and the initial applications, implemented by manufacturers over the next 3-5 years along with other material.

2.9 After receiving further presentations from IATA and updates from States, Mr. Raza Gulam lead the discussions on the development of MID surveillance strategy which was agreed by the participants. Furthermore the workshop agreed on action items that included the conduct of a survey to be addressed by ASTAF, MIDANPIRG subsidiary bodies and ICAO MID regional.

2.10 At the closing session Mr. Hasan Al Ghoraihy, Director CNS/ATM in GACA, requested the establishment of core implementation/coordination team which was support by IATA, the proposal will be circulated along with the survey to MID States and concerned organization for comments and suggestions. Mr. Jihad Faqir, Deputy ICAO Regional Director, MID Region, thanked the participants and their States for allowing such a fruitful workshop, he also thanked Saudi Arabia and the CNS/ATM section in GACA for their valuable support in making the workshop a successful event and asked the States to utilize the knowledge gained in order to correctly address their future investment in the surveillance domain.

3. RECOMMENDATIONS

3.1 As a result of discussions, the workshop developed the following draft MID Region Surveillance Strategy and actions, which are to be addressed by ICAO and States, as appropriate:

SURVEILLANCE STRATEGY:

- Shares experience and trial results in new surveillance technologies
- Minimize reliance on position reporting, particularly voice reporting & Primary Radar
- Maximize contiguous coverage and use of ADS-B on major routes/terminal areas
- Make full use of SSR Mode 'S' capabilities, reduce reliance on 4 digit octal code
- Make use of ADS-C when ADS-B, SSR or multilateration not supported
- Encourage Multilateration for surface, terminal & area surveillance
- Improve safety through sharing ATS surveillance data across FIR boundaries
- Broaden scope of cooperation between ANSPs and Stakeholders
- Acknowledge the development of other Regions and should consider incremental introduction of new surveillance technologies
- Increase use of Aircraft Derived Data
- The MID Region ADS-B implementation times line set for 2017

Actions:

- ICAO to provide guidance material to standardize and facilitate flight check procedures for ADS-B and Multilateration
- Acknowledge ICAO role and activities to address airborne surveillance applications.
- Acknowledge the need for setting Regional timelines to implement ADS-B out where justified
- States to reply to the survey and confirm their position and support for the core implementation/coordination team
- States to share the aircraft ADS-B approval data bases

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Appendix A to the Summary of Discussions

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