



INTERNATIONAL CIVIL AVIATION ORGANIZATION

ATS INTERFACILITY DATA COMMUNICATION (AIDC) SEMINAR

(Bangkok, Thailand, 28-31 October 2014)

SUMMARY OF DISCUSSIONS

1. INTRODUCTION

1.1 The Seminar on the Implementation of ATS Interfacility Data Communication (AIDC) was held at the ICAO Asia and Pacific (APAC) Regional Office (Bangkok, Thailand, 28-31 October 2014). The objective of the Seminar was to assist the APAC States in implementing ASBU B0-FICE to Increase Interoperability, Efficiency and Capacity through Ground-Ground Integration.

1.2 The Seminar was attended by forty (40) participants from thirteen (13) Administrations (Australia, Bangladesh, Cambodia, Macao China, India, Iran (Islamic Republic of), Malaysia, Myanmar, Philippines, Singapore, Sri Lanka, Thailand and Viet Nam), and two industry suppliers (Harris and Thales). The list of participants is at **Attachment A** to this Summary of Discussions.

1.3 Mr. Arun Mishra, Regional Director, ICAO Asia and Pacific Office opened the Seminar and extended warm welcome to the participants and highlighted importance of the Seminar and recent development of civil aviation in the region. He also expressed appreciation to the Administrations for their arrangement for participants to the meeting and wished a successful seminar.

1.4 The Seminar was moderated by Mr. Li Peng, ICAO-APAC Office. The seminar was supported by Mr. Raza Gulam, ICAO-MID Office in Cairo and Mr. Celso Figueiredo, ICAO - EUR/NAT Office in Paris and Mr. Frederic Lecat, ICAO-APAC Office.

1.5 The Seminar was also supported by Mr. Adam Watkin, from Airservices Australia and Mr. Anurag Sharma and Dr. G. Manish from Airports Authority of India.

1.6 The agenda for the Seminar is provided in SP01 and the work programme of the Seminar is provided in the SP/02.

1.7 The Seminar was conducted in English only, inclusive of all papers, presentations and this Summary of Discussion.

2. DISCUSSIONS

2.1 The B0-FICE Module “Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration” as described in Global Air Navigation Plan (GANP) ASBU document was introduced. APANPIRG Conclusions with respect to B0-FICE - AIDC were also reviewed.

2.2 It was noted that assignment of focal point for AIDC Implementation will facilitate AIDC implementation and it was suggested to send State Letter to all APAC States requesting them to nominate a focal point details. The Seminar discussed the current implementation plan and updated the implementation status provided at **Appendices A and B** to this Summary of Discussions.

2.3 The structure and status of the Pan regional ICD for AIDC and gap analysis against the APAC AIDC ICD Version 3 were presented and noted.

2.4 The Seminar noted common message set of both AIDC and OLDI and difference between them and also received a presentation on messages used in the different flight state.

Implementation status and Exchange of Experience gained and Lessons learnt

2.5 Following States/Administration provided information on the planning and implementation status to the Seminar: Representative from Thales and Harris also presented their input from ATM system vendor's perspective.

- Thailand
- Iran
- India
- Philippines
- Sri Lanka
- Viet Nam
- Australia
- Singapore

2.6 The Seminar discussed some challenging subjects and issues including:

- Message set implemented based on operational requirement and bilateral agreement;
- interoperability between ATM automated systems supporting different versions of AIDC ICDs;
- interoperability between ATM automated systems from different vendors;
- complexity of interoperability using AIDC/OLDI between different ICAO Regions mainly APAC, EUR/NAT and MID.
- possible use of AIDC message between Aerodrome (Control TWR) and ATC Centre (Air Traffic Service Unit) in the neighboring Administration and between aerodromes closer to FIR boundaries; and
- training, testing and issues forms submitted.

2.7 Recommendations from the Seminar were as follows:

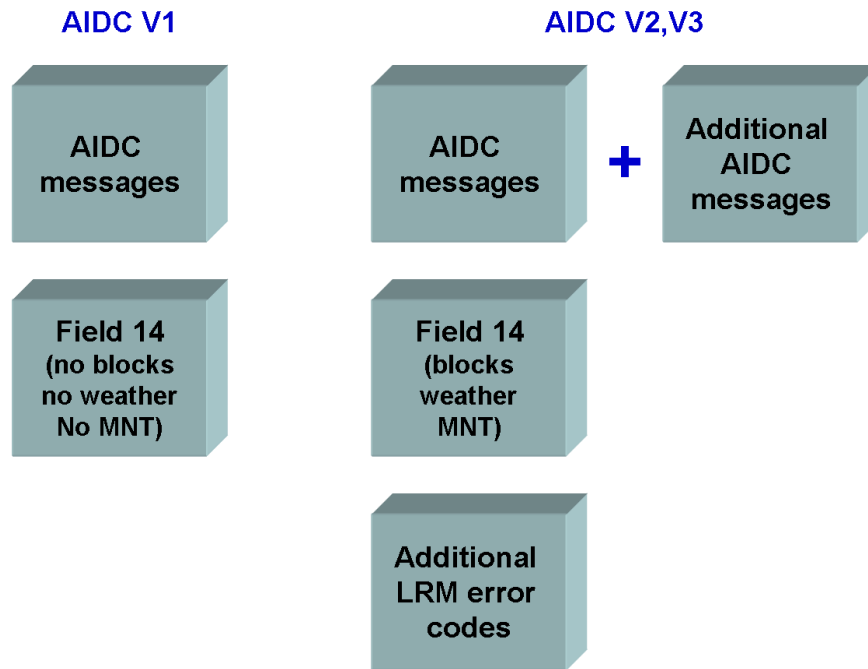
- States to share experience on AIDC implementation including sharing of training and implementation packages and visit each other;

- Define operational requirements and specify scope of operational improvements (determine what AIDC messages set is required to be supported) at initial planning stage
- engage both technical and operational experts (CNS/ATM) in the process of AIDC implementation from initial stage;
- CNS Table 1E would become regional specific requirement for APAC region and the title name of column 4 of this table should be reviewed. Instead of AFTN /AMHS standard, transmission means may be considered;
- The entire AIDC message set may not be implemented at one go because air traffic controllers need time to get used to AIDC operation;
- Special attention should be paid to the specification of peer to peer messages including the rules for processing, content, format;
- Define the objectives for trials to avoid any problems during the implementation process;
- Develop a comprehensive and detailed testing plan including testing scripts to evaluate the process of the implementation;
- ATCOs should be trained for using AIDC in a safe and efficient manner before its implementation and before each upgrade (message set, HMI or system). The training syllabus should consist of theory and practice (CBT, simulator, OJT);
- Develop a training plan taking into consideration specific requirements for ATCO, FDO and ATSEP;
- States experienced in AIDC/OLDI be encouraged to develop/share generic training Material (concept, use cases, abnormal events) that could be used by other states to support the initial stage of their training process for ATCO, FDO and ATSEP;
- Training requirement – Generic and specific training. Training package (STP of TRAINAIR Plus and/or i-KIT on AIDC) is encouraged to be developed;
- The upcoming APA TF (APAC TF) to maintain the AIDC issues table as initially developed by the Seminar and to follow up with the action plan to solve the issue as one of the top priorities.

Compatibility between AIDC Versions 1, 2 and 3

2.8 All enhancements introduced during the development of Version 2 and 3 were designed to permit continued interoperability with Version 1. For example, when a block level format was defined for Field 14, it was explicitly stated that this was an optional format to only be used with agreement between the two ATS Units. As such it is the responsibility of the vendor to ensure that these optional formats can be configured for each neighboring ATS Unit.

2.9 The following diagram depicts the significant differences between AIDC Version 1 and the subsequent AIDC versions.



The diagram shows that everything in AIDC Version 1 is included in AIDC V2 and V3. As such, an AIDC V1 ATS Unit is interoperable with an AIDC V2 or 3 ATS Unit.

The additional messages in AIDC V2 and V3 are not supported by AIDC V1. However this is controlled by simply not sending these messages

As described earlier, the optional Field 14 formats should not be included in messages sent to an AIDC V1 ATS Unit, which makes Field 14 interoperable too.

The additional LRM error codes were designed to support the new AIDC messages and the Field 14 formats. Because an AIDC V2 or V3 ATS Unit will not be receiving these messages or formats from an AIDC V1 ATS Unit, this means that they will not send these error codes to an AIDC V1 ATS Unit.

Therefore AIDC messaging is also interoperable between an AIDC V2/V3 ATS Unit and an AIDC V1 ATS Unit.

Any Other Business

2.10 The meeting noted the operational data link working group of Communication Panel (CP) will be established to continue undertaking those pending tasks of OPLINK Panel.

2.11 It was recommended that the target date for implementation of Pan regional ICD for AIDC (Version 1.0) would be as soon as possible. Any planned new ATM automated system should be capable of supporting Pan regional ICD for AIDC. This should be further addressed by the AIDC Task Force.

2.12 Mr. Adam Watkin, expert on AIDC and Datalink from Airservices Australia and Dr. Gursewak Manish, joint General Manager (ATM) and Mr. Anurag Sharma, joint General Manger (CNS) from Airports Authority of India were appreciated for their contributions to the development of Pan regional ICD for AIDC and their support to the AIDC Seminar.
