



Agenda Item 5: Operational implementation of new ATM automated systems and integration of existing systems

AIDC IMPLEMENTATION TO ENSURE AN EFFICIENT FLOW OF INFORMATION BETWEEN ADJACENT ATS UNITS

(Presented by Venezuela)

SUMMARY

This working paper presents a report on implementation activities being conducted in Venezuela in the area of automation, basically concerning AIDC implementation. It also puts forth the need for a forum to share ideas and developments of the SAM Region *vis-à-vis* the CAR Region regarding connectivity and data flow to facilitate interoperability between adjacent FIRs of both Regions, for the conduction of efficient, coordinated and safe flights in Latin American airspace. However, harmonisation requires the support of the organisations involved.

References:

- Doc 4444, Air traffic management
- SAM/IG meetings
- RLA 06/901 AIDC implementation meetings
- Doc 9694, Manual of air traffic services data link applications

1 Background

1.1 According to the GANP, the vision of ICAO is to achieve sustainable growth of the global civil aviation system. ICAO is the global forum of States for international civil aviation, where policies and standards are developed, compliance audits are undertaken, studies and analyses are performed, assistance is provided, and aviation capacity is built through the cooperation of Member States and stakeholders.

1.2 The GANP is a rolling strategic methodology that leverages existing technologies and anticipates future developments based on State/industry agreed operational objectives. It explores the need for more integrated aviation planning at both the regional and State level and addresses required solutions by introducing the consensus-driven aviation system block upgrade (ASBU) systems engineering modernisation strategy.

1.3 To ensure that continuous safety improvement and air navigation modernisation continue to advance together, ICAO has developed a strategic approach that links progress in both areas.

1.4 The aviation system block upgrade methodology of the Global air navigation plan is a programmatic and flexible global systems engineering approach allowing all member States to advance their air navigation capacities based on their specific operational requirements.

1.5 Block upgrades will permit the realisation of global harmonisation, increased capacity, and

environmental efficiency that modern air traffic growth now demands in every region around the world.

1.6 The ASBUs are designed to be used by the Regions, subregions and States when they wish to adopt the relevant blocks or individual modules to help achieve harmonisation and interoperability by their consistent application across the Regions and the world. **B0-FICE** (increased interoperability, efficiency and capacity through ground-ground integration) to improve coordination between air traffic service units (ATSUs) by using ATS interfacility data communication (AIDC).

1.7 AIDC is the necessary first step towards all improvements in FF-ICE, ATFM and collaborative decision-making, and is the basis for future advanced information management processes.

2 Analysis

2.1 According to Doc 9694, *Manual of air traffic services data link applications*, one of the keys to the future air traffic management system lies with the two-way exchange of data, both between aircraft and the ATC system and between ATC systems. Communications with aircraft have been increasingly using digital data link. At the same time, automated data exchange between ATC systems will allow for timely dissemination of relevant flight data, particularly for coordination and hand-over of flights between ATS units.

2.2 The AIDC application exchanges information between ATS units in support of critical ATC functions, including notification of flights approaching a flight information region (FIR) boundary, coordination of boundary-crossing conditions, and transfer of control.

2.3 It is important to highlight that, for AIDC purposes, messages are defined in relation to three phases of coordination as perceived by an ATS unit: **notify phase, coordinate phase, and transfer phase**. If well conceived, this would surely contribute to more efficient communications between adjacent units.

2.4 The ATS interfacility data communication (AIDC) application exchanges ATC information between ATS units in support of critical ATC functions, including notification of flights approaching a flight information region (FIR) boundary, coordination of boundary-crossing conditions, and transfer of control.

2.5 Finally, according to the aforementioned document, regional adaptation of the AIDC application can be accomplished by mutual agreement.

2.6 In any case, AIDC implementation is a global task, on which the SAM Region has been working conscientiously. This meeting will follow up on the status of implementation and operation of AIDC in the SAM Region. An excellent implementation action and follow-up plan is in place. Ecuador, Colombia, and Panama have made significant progress. Likewise, Venezuela would like to report that we have completed the installation of the new control centre at Maiquetía, with ATECH Sagitario system, and we are taking initial coordination steps with the FIR of Brazil to begin AIDC integration, updating the database and the letter of agreement.

2.7 Following this integration and based on the knowledge acquired in this first process, we will continue with the other adjacent FIRs.

2.8 But, apart from the efforts being made in the SAM Region, Venezuela wishes to submit to the consideration of the Secretariat of the Meeting the possibility of presenting a proposal to interact with the authorities of CAR States that are adjacent to SAM States, in order to know, first hand, the status of

AIDC, since the interconnection for the exchange of air traffic data is absolutely necessary if we want to support the interoperable and efficient airspace initiative.

2.9 We believe it is necessary to create an appropriate forum to exchange ideas with our neighbours in adjacent FIRs in the SAM and CAR Regions. This will undoubtedly optimise our joint efforts in the projects being carried out in both Regions for the same purpose.

3 Suggested action

The Meeting is invited to:

- a) Take note of the proposal;
- b) study the possibility of creating an appropriate forum for the exchange of ideas regarding efforts being made in each Region on adjacent FIRs of different ICAO Regions, for the achievement of common objectives; and
- c) suggest other actions it may deem appropriate.

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