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WORKING PAPER

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Third NAM/CAR Air Traffic Services Inter-facility Data Communication (AIDC) and North American Interface Control Document (NAM/ICD) Implementation Follow-up Meeting (AIDC/NAM/ICD/3)
Mexico City, Mexico, from 25 to 28 February 2020

Agenda Item 2: Joint Meeting with the ANI/WG AIM Task Force

FLIGHT PLAN ERRORS DUE TO HUMAN FACTORS

(Presented by the Secretariat)

EXECUTIVE SUMMARY	
Flight plan information is primary for the automation processes between control centres are carried out correctly and aligned with the established parameters in ICAO Doc 4444.	
Action:	Suggested actions are presented in Section 4.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency
<i>References:</i>	<ul style="list-style-type: none">• Doc 4444• AIDC implementation process

1. Introduction

1.1 During the last years the NAM/CAR region has been working in the Air Traffic Services Inter-facility Data Communication (AIDC) and the Interface control document (ICD) implementation process for North America (NAM). Both protocols allow automation between air traffic control centres.

1.2 The automation process presents a series of challenges before it can be considered operative, starting from the lack of standardization of the protocols in different control centres, other technical and operative issues and in the end errors in the flight plan information.

2. Analysis

2.1 Flight plan information is primary in the automation processes of the control centres. Information such as aircraft identification, on board technology, route (fixed, air routes, SID and STAR procedures), is information that the control centres use as base for the management both automated protocol messages.

2.2 Human-generated flight plans errors are due lack of compliance with the requirements stated in ICAO Doc 444, Appendix 2, in which is found the Flight Plan Format.

2.3 A great number of errors generated in automatization is due duplicity of flight plan messages, another error generated by the lack of compliance of Doc 4444, which shows the war to manage different changes in flight plans through CHG, CNL, among other messages.

2.4 The available avionics in the aircrafts and their dissemination through the Field 10 in the flight plan format allow a series of operative procedures in the diverse control centres, such as the use of RVSM, ADS-C/CPDLC, among others. The lack of one of these technologies –when it is declared by the aircraft – result in operative limitations of the aircrafts.

2.5 Data Collection Guidance PBCS Manual (Doc 9869) contains guidance information on the application of communication base on the performance and suggest the RCP for air traffic services in an specific area, for which the stipulated information in the Field 10 of the flight plan allows or not this facilities.

2.6 In Field 15 information regarding the aircraft route is placed. This must be complete form the starting airport of the aircraft, route and destination, taking into account departure and arrival procedures in the airports. Lack of validations of the information or the lack of compliance with it provokes automation problems.

2.7 Field 18 generally presents complementary information, in accordance with stipulations of Doc 4444.

2.8 Each of the stipulated fields in the Flight plan format has a specific purpose. Errors in this information provokes that automation between aircrafts is not effective, and contributes to diminish safety of automated coordination.

3. Conclusions

3.1 The adequate, validated and certified management by the responsible flight plan personnel is essential for the automation and coordination processes between control centres of the region to be carried out efficiently and safely.

3.2 States are required to implement training and monitoring mechanisms for the operations of personnel responsible for flight plan management, to ensure that the information sent from their States meets the requirements for validation and quality of information, to promote safety.

3.3 It is necessary that the States provide to their personnel adequate training that assures that the flight plan information complies with the established requirements.

4. Suggested actions

4.1 The AIM Task Force is invited to establish within its work plan carry out AIS/AIM training for the personnel responsible of flight plan management with the objective of:

- a) Assure adequate management of flight plan information.
- b) Validate its correct sending and management.
- c) Strengthen the operation of automated protocols.