International Civil Aviation Organization

WORKING PAPER

A40-WP/75
TE/15
11/7/19
(Information paper)
English and Spanish only[1]

ASSEMBLY — 40TH SESSION

TECHNICAL COMMISSION

Agenda Item 30: Other Issues to be considered by the Technical Commission

PROJECT FOR CENTRALIZED PROCESSING OF FLIGHT PLANS

(Presented by the Member States of the Central American Corporation for Air Navigation Services (COCESNA)[2])

EXECUTIVE SUMMARY	
This paper contains the actions taken by the Central American Corporation for Air Navigation Services (COCESNA) to develop the project for centralized processing of flight plans with the purpose of achieving controls that affect the improvement of the operational safety and efficiency of air traffic services through the reduction of errors in the flight plans received or transmitted by CENAMER.	
Strategic Objectives:	This working paper relates to the Strategic Objectives on Safety and Air Navigation Capacity and Efficiency.
Financial implications:	Not applicable
References:	Doc 4444, *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM)

1. INTRODUCTION

1.1 It is paramount for COCESNA to guarantee the quality of the information of the flight plans of aircraft that land, take off or fly over the Central American flight information region (FIR).

1.2 In the region, there have been some significant differences between the data of flight plans that arrive at CENAMER since the information sent directly by the airlines or through its operational control and dispatch centres (CCOD, for its acronym in Spanish) in some cases does not match that provided by the air traffic services reporting office (ARO)/aeronautical information service (AIS) offices of the member States.

1.3 These inconsistencies may affect the safety and efficiency of air traffic services (ATS).

[1] English and Spanish versions provided by COCESNA.
[2] Belize, Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua.

2. INCIDENTS DETECTED IN THE FLIGHT PLANS

2.1 The following have been determined:

2.1.1 Errors in the filling of the ICAO format for flight plans

a) inconsistency between field 10a "Navigation" and field 18 "PBN Information";
b) problem with the description of aircraft equipment, field 10a;
c) problem with filling in additional information, field 18;
d) inconsistency between speed, level and type of aircraft;
e) no statement related to RVSM capacity;
f) inconsistency between field 7 and field 18; and
g) outdated databases in control centres, which at the request of the AIS offices, translates into a need to make changes to the flight plans sent by the companies.

2.1.2 Omission of flight plans with standardized messages

The lack of use of ATS standard messages by AIS operators and airlines means that, when there is any change in the flight plan, a new flight plan with updated information is sent, omitting the use of messages such as cancel (CNL), delay (DLA), and modification (CHG) messages.

3. CURRENT SCENARIO OF FLIGHT PLAN PROCEDURES ACCORDING TO THE MEMBER STATES

3.1 The member States of COCESNA handle their flight plans as follows:

a) Guatemala: Flight plan presented in hard copy and through aeronautical fixed telecommunication network (AFTN)
b) Belize: Flight plan presented in hard copy
c) El Salvador: Flight plan submitted in soft copy
d) Honduras: Flight plan presented in hard copy
e) Nicaragua: Flight plan presented in hard copy
f) Costa Rica: Flight plan presented in hard copy and mostly sent by the airline directly to each control centre, including the AIS office

Therefore, there is no uniformity in how information is sent.

4. BENEFITS FROM THE CENTRALISED PROJECT

4.1 Here are some benefits for all the stakeholders that are part of the process:

4.1.1 Airlines (IATA)

a) They have expressed the need to centralize flight plan management in the region to standardize the dispatch procedure throughout the Central American Region, as well as the information that they enter into the flight plan. This would expedite the transmission from the flight dispatch area, the immediate detection of errors, and its correction for a new shipment, thus avoiding putting operational safety at risk.

b) Minimize ground delays due to the absence of a flight plan generated on time.
c) Generates uniformity in the sending of information by the airlines to the member States.

4.1.2 Member States of COCESNA

a) The collection of data is streamlined through a new concept.
b) Quick verification of the flight plan structure.
c) Expedite error identification for correction by the originator of the flight plan.
d) Reduce processing time.
e) Avoid flight delays.
f) Minimize errors by eliminating data transcription.
g) Standardize the format of flight plans.

4.1.3 COCESNA

a) Reduce 99 per cent of errors generated in the reception of flight plans.
b) Reduce the workload of CENAMER radio staff by over 90 per cent.
c) Total availability of flight plans.
d) Substantial increase in AIDC/NAM automation (99 per cent).
e) Increase in safety indexes by using a single flight plan.
f) Immediate data collection from commercial, general and private aviation when they do not have a line of credit with COCESNA.
g) Instant sending of diverse courier.
h) Assurance of flight plans without errors for CENAMER and other destinations.

5. COCESNA'S EXPERIENCE

5.1 Flight Plan Validator

a) Since 2016, COCESNA has developed the Flight Plan Validator software based on the flight plan regulations of the *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM, Doc 4444) through the information technology management.

b) Through this tool, it is possible to send automatic acceptance or rejection messages for the flight plan. If the message is not validated it will be forwarded to its originator indicating the reasons for the rejection. In case it is validated, a confirmation message will be sent to the originator.

c) The validation is syntactic and semantic for standardized ATS messages (FPL, SPL, DLA, CHG, CNL and RQP) in accordance with the new flight plan format. The validation is done automatically through a customisable list of general rules and by type of message.

5.2 Operational need

a) Reduction of errors in flight plan information.
b) Reduced time for data collection based on new concepts of operation.
c) Automation of manual procedures and reduction of processing times.

d) Own 100 per cent of flight plans.
e) Eliminate the correction of errors by air traffic controllers.

6. PROBLEM IDENTIFICATION

6.1 Since 1997, COCESNA has been using a part of its human resources in the detection and correction of errors in flight plans, so air traffic controllers have reliable data.

6.2 In some cases, AIS operators do not know the ICAO regulations on flight plans, which means that errors are not detected and, although the system reports the error, they cannot correct it, and must return it to the issuer.

6.3 Errors are also generated in the airlines, but as some of them do not have flight dispatchers, the rejection of a flight plan in AIS delays the management and dispatch time creating pressure in sending the flight plan with the error found.

6.4 Linguistic problems have been detected in AIS staff due to the low level of English. Considering that a system called TOP SKY is used in Central America, whose working language is English, in some cases, it is difficult for the officer to understand the error that the system has determined.

7. TASKS TO BE COMPLETED

7.1 Subscription of a multilateral agreement between the member States and COCESNA to comply with the provisions of Appendices 2 and 3 of Doc 4444, specifically regarding the filling of the flight plan.

7.2 Establishment of a centralized unit for reception, validation, acceptance, and distribution of flight plan data.

7.3 Preparation of a manual of operating procedures for the processing and validation of the flight plan.

7.4 Development and integration of a technological platform for compliance with the regulatory framework, procedures, and validation of the flight plan, guaranteeing the provision of services at all times.

7.5 Accelerate the process of data collection based on new operational concepts. Automate and standardize manual procedures to reduce processing time. Have 100 per cent flight plans without errors.

8. SCOPE OF THE PROJECT

8.1 It has been defined that the multilateral agreement between the members States of COCESNA applies only to flights that exceed the F200 (twenty thousand feet).

8.2 The centralization of the shipment, reception, and validation of the flight plan structure is made in the aeronautical information management (AIM) located in COCESNA’s headquarters in Tegucigalpa.

8.3 For flights departing from Central America, the State of origin must send the flight plan to all States and dependencies included in said plan.

8.4 It has been established that the State decides on any local impediment to the provision of air traffic service to a specific aircraft.

9. CONCLUSION

9.1 Take into consideration the information of this working paper.

9.2 Support the centralised processing of flight plans as a means of mitigating the errors found during their treatment.

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