



ICAO

International Civil Aviation Organization
North American, Central American and Caribbean Office

DISCUSSION PAPER

ANI/WG/3 — DP/03

05/04/16

Third NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/3)

Mexico City, Mexico, 4 to 6 April 2016

Agenda Item 4: Follow-up, Performance Evaluation and Monitoring of the NAM/CAR Regional Performance Based Air Navigation Implementation Plan (NAM/CAR RPBANIP) Targets

4.1 Progress Reports of the Task Forces and the ANI/WG

AIDC TASK FORCE PROGRESS REPORT

(Presented by the Rapporteur)

EXECUTIVE SUMMARY

This paper describes the progress of the AIDC Task Force since the last ANI/WG meeting in 2015.

Strategic Objectives:

- Safety
- Air Navigation Capacity and Efficiency
- Economic Development of Air Transport
- Environmental Protection

1. Introduction

1.1 The AIDC Task Force was defined in the ANI/WG/01 Meeting and further updated in the NACC/WG/04 Meeting.

The last report and agreements made by the AIDC/TF were reported in the AIDC/TF/02 Meeting, which was approved as fast track via ICAO State Letter EMX0268 since 12 April. The final AIDC/TF/02 Report is available on the ICAO NACC Regional Office Website at: <http://www.icao.int/NACC/Pages/meetings-2015-aidctf2.aspx>. From this meeting several decisions and a conclusion were adopted:

- Decision 2/1 Update of AIDC Regional Implementation Plan
- Conclusion 2/2 AIDC Implementation Checklist
- Decision 2/3 Comparison of Existing AIDC ICDS
- Decision 2/4 NAM ICD for use as Regional ICD
- Decision 2/5 LOA Annex for AIDC implementation using NAM ICD

2. Progress Report

AIDC Regional Implementation Plan

2.1 The AIDC Regional Plan shows the intended AIDC testing and implementation dates for each State, as well as other useful information (such as system to be used, adjacent FIRs with which implementation will take place, and Point of Contact information). The updated regional implementation plan is presented in this working paper in **Appendix A**. It is very important to keep the information in the regional plan up to date, as it is the guide to plan testing and implementation between FIRs, as well as how to concentrate efforts, assign priorities and identify possible conflicts between systems. The regional plan underwent a major update of information as result of the evaluation of interfaces for the purpose of setting new goals for the Task Force, reflecting more detail with respect to the NAM ICD Class implemented by each FIR.

Task Force Activities

2.2 Since the last ANI/WG meeting in June 2015, the Task Force has carried out two teleconferences, and has a meeting planned for April of this year. In these events there have been several deliverables and results obtained:

- An example LOA for automated data exchange between FIRs was presented by Cuba, and is pending discussion by the Task Force, as also a template from COCESNA for PAC ICD implementations. These example LOAs are presented in **Appendix B**. The recommendation is to include the LOA items for automation as an appendix to the operational LOA, so changes in automation can be managed without having to resign the operational LOA.
- The United States representative provided a consideration of the comparison between NAM ICD and PAN ICD, for the purpose of harmonization, pointing out the differences in applicability and environment between both ICDs.
- As mentioned in the previous point, an evaluation of interface implementations was done, complementing the information in the regional plan, and producing a document which details the interfaces specified by class when applicable. This document reveals a considerable number of new interfaces, as well as the growing use of NAM ICD Class II, mainly between United States and Canada. The results of this evaluation are presented in **Appendix D**, along with the graph of implementation of AIDC in the CAR region.

2.3 Work in progress includes the definition of new goals, specifically speaking:

- Achieving a total of 9 AIDC interface implementation in the CAR region by December 2016. Currently there are 7 implementations in operation, in which Central America (CENAMER) is considered one implementation, although internally there are several interfaces between the upper airspace and the approach area of each Member State of COCESNA.

- There is a task pursuing the defining a goal for Class II and III implementations, for which the evaluation of current implementations was done. The importance of implementing Class II and III was referred to in the group discussion, as United States indicated that there have been many MOD messages transmitted between Canada and themselves, in an average of 3 MODs per CPL. Thus, the implementation of Class II will bring significant benefits over just Class I implementation. This is work in progress which will be discussed in the face to face meeting in April.
- Another task is the definition of metrics which can allow a State or Organization to measure the impact of AIDC implementation, in a “Before/After” fashion. Thus, the metric must be applicable to both non-automation and automation settings, to ensure a common baseline for comparison. During the group discussion, the complexity of these metrics was acknowledged, suggesting the need to start with simple straightforward metrics first. This is also work in progress, and responds to Conclusion ANI/WG/2/07, literal c).

FPL Monitoring group activities

2.4 The FPL Monitoring group had presented a change of strategy since the last ANI/WG/2 meeting, in which the efforts would be concentrated to one error at a time, beginning with duplication. Since the meeting, the following activities were performed:

- A total of five teleconferences were held.
- A data collection for duplicate cases was performed from September 14th to October 4th 2015. The results of this data collection can be found in **Appendix C**, and reflect a significant reduction in duplication, especially related to those originated from the *Jeppesen* web page.
- Two data collections are planned for 2016.
- The last teleconference included the setting of a goal for 2016, regarding the reduction of duplicate flight plans. Taking into account the grand total of over 15,000 cases of duplication collected in the previous process last year, the goal for the data collection in September will be 8,000 cases of duplication for the whole region in the three week period.

2.5 The results presented in **Appendix C** show the overall behaviour of duplicates between phases 2 and 3, in the first graph. There is a significant reduction in duplicates, taking into account factors as duration of data collections, the collection of all errors vs collection of only duplicates, greater experience and awareness in collection of errors, among others. The second graph identifies where the duplicates were originated from, showing that most still come from the KDENXLD address, belonging to the *Jeppesen* flight plan web page. There are other addresses that belong to the SAM region, for which there has been some coordination with representatives of that region for joint efforts in mitigation. In the third graph the duplicates detected by State/Organization per phase is depicted. The great reduction in duplicates reported by Mexico and United States comprise the majority of the total reduction between phases 2 and 3. Other FIRs had an increase, but those quantities were offset in the end by the previous two in the first graph. In the fourth graph we match originator with State/Organization, so it is evident where the duplicates for each originator is being detected, thus the FIR can take action in particular with each originator.

2.6 Further discussion and analysis from the last teleconference revealed important information regarding the duplicates generated from operators and ATS Units, evidenced in the subsequent graphs. In summary, the graphs show which particular operators are generating the most duplicates, the States those operators are generating duplicates to, a detail of which callsigns are generating duplicates from the KDENXLD address, and the particular ATS Units generating the most duplicates. Regarding the Jeppesen page, an analysis from United States revealed that in many cases the duplicates were sent with few seconds in between, which would suggest a system-related issue. Mexico also mentioned that there have been errors related to the use of web based flight plan facilities produced by differences in interpretation in the regulations and thus in the rules imposed in the system, and that guidance to the filers will mitigate the errors generated by this cause.

2.7 There are implementations of new flight data processing systems in Central America and Trinidad and Tobago, which will contribute to reduce errors in flight plans. The COCESNA system will provide feedback to originators when errors are detected. It has been implemented, but being adjusted to certain issues detected regarding SID, STAR and route information. It is 85% completed. The system in Trinidad and Tobago is currently in testing.

AIDC Implementation Performance Indicator

2.8 The implementation of AIDC in the NAM/CAR region currently meets the target performance goal of 80%. **Appendix D** shows that 81.40% of the FIRs in the NAM/CAR region have implemented AIDC with at least one neighbouring FIR. As mentioned in item 0, there are new goals particular to the task force that are defined or in process of definition, and the goal of the CAR region of 9 interfaces total for December 2016 established during the 12th teleconference of the Task Force.

Operational Benefits

2.9 Mexico described the operational benefits achieved with the implementation of AIDC:

- Before: verbal coordination of all information related to active flights. This implied the use of more human and material resources.
- After: the automatic data coordination brought different benefits, among which are the reduction of workload for the areas in charge of coordinating active flights and the reduction of oral language barrier errors, as also the reduction in the time of submission – reception of the data related to the coordination of active flights.

2.10 The Task Force expects this result to repeat itself for the rest of the FIRs and also to be able to present quantified data with the metrics to be developed, as mentioned in item 0.02.

Work Programme

2.11 The updated work programme is provided in **Appendix E**.

Training needs

2.12 For the purpose of assuring correct flight plan information, it is important that personnel working for the ATC Reporting Office (ARO) be properly trained. In many States this is the case, where training is issued regularly to these personnel. In other States, there is a need for training properly the personnel working with flight plans, to avoid procedural errors that impact the ATC service. In sync with the goals of the FPL Monitoring Group, in the reduction of duplicate flight plans, a significant amount of errors are originated from the ATC units, thus the need for ARO officers capable of recognizing and avoiding errors before they reach the air traffic control centers.

2.13 At the other end of the spectrum, regular guidance to dispatchers and operators have proven to be effective in reducing errors, as this personnel may change with certain frequency. The ANSP can provide this guidance in accordance to the particulars of their flight plan processing procedures and rules.

Disuse of converters

2.14 Following up on Conclusion ANI/WG/2/8, regarding the disuse of converters en FDP and FPL processing systems in the region, the updated table is presented in **Appendix F**. There were several States and organizations that removed their converters since the last ANI Working Group Meeting, such as Guatemala and COCESNA.

3. Suggested Actions

3.1 The meeting is invited to:

- a) take note of the activities and performance of the Task Force;
- b) agree on any other action as deemed necessary.
