INTERNATIONAL CIVIL AVIATION ORGANIZATION
NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN OFFICE

SECOND NAM/CAR AIR NAVIGATION IMPLEMENTATION WORKING GROUP (ANI/WG) AIR TRAFFIC SERVICES INTER-FACILITY DATA COMMUNICATION TASK FORCE MEETING (AIDC/TF/2)

FINAL REPORT

MEXICO CITY, MEXICO, 27 FEBRUARY 2015

Prepared by the Secretariat   February 2015

List of Contents

Contents   **Page**

HISTORICAL

ii.1   Place and Date of the Meeting

The Second NAM/CAR Air Navigation Implementation Working Group (ANI/WG) Air Traffic Services Inter-facility Data Communication Task Force Meeting (AIDC/TF/2) was held at the ICAO NACC Regional Office in Mexico City, Mexico, on 27 February 2015.

ii.2   Opening Ceremony

Mr Jorge Fernández Chacón, Deputy Regional Director of the North American, Central American and Caribbean (NACC) Office of the International Civil Aviation Organization (ICAO) provided opening remarks and highlighted the AIDC regional goals. Mr. Fernando Casso, AIDC Task Force Rapporteur, welcomed the participants and officially opened the meeting.

ii.3   Officers of the Meeting

Mr. Fernando Casso (Dominican Republic) chaired the meeting plenary. Mr. Julio Siu, Regional Officer, Communications Navigation and Surveillance of the ICAO NACC Regional Office served as Secretary of the Meeting.

ii.4   Working Languages

The working language of the Meeting was English and working papers, information papers and draft report of the meeting were available to participants in said language.

ii.5   Schedule and Working Arrangements

It was agreed that the working hours for the sessions of the meeting would be from 08:30 a.m. to 17:00 p.m. hours daily with adequate breaks.

ii.6   Agenda

Agenda Item 1   Review and approval of the meeting agenda, working method and schedule

Agenda Item 2   Review and update of regional plan

Agenda Item 3   Implementation issues discussion

3.1   Review of implementation procedure
3.2   Harmonization of North America Interface Control Document (NAM-ICD) with Pan Regional (NAT and APAC) Interface Control Document (PAN-ICD)
3.3   NAM ICD changes introduced by version E

Agenda Item 4   **Review and Update the work programme**

Agenda Item 5   **AIDC Go-Team initiative**

Agenda Item 6   **Other matters**

ii.7   **Attendance**

          The Meeting was attended by 6 States/Territories from the CAR Region, and one International Organization, totalling 13 delegates as indicated in the list of participants.

ii.8   **Draft Conclusions and Decisions**

          The Meeting recorded its activities as Draft Conclusions and Decisions as follows:

**DRAFT
CONCLUSIONS:**   Activities requiring endorsement by the NAM/CAR Air Navigation Implementation Working Group (ANI/WG).

Number	Title	Page
2/2	**AIDC IMPLEMENTATION CHECKLIST**	3-1

DECISIONS: Internal activities of the AIDC TF.

Number	Title	Page
2/1	**UPDATE OF AIDC REGIONAL IMPLEMENTATION PLAN**	2-1
2/3	**COMPARISON OF EXISTING AIDC ICDS**	3-4
2/4	**NAM ICD FOR USE AS REGIONAL ICD**	3-5
2/5	**LOA ANNEX FOR AIDC IMPLEMENTATION USING NAM ICD**	3-5

ii.9　　　　　**List of Working and Information Papers**

Refer to the Meeting web page:
http://www.icao.int/NACC/Pages/meetings-2015-aidctf2.aspx

		WORKING PAPERS		
Number	**Agenda Item**	**Title**	**Date**	**Prepared and Presented by**
WP/01	1	Review and Approval of the Meeting Agenda, Working Method and Schedule	21/01/15	Secretariat
WP/02	2	Review and Update to AIDC Regional Plan — Presented by the	07/02/15	AIDC Task Force Rapporteur
WP/03	3.1	Review of the AIDC Implementation Procedure	07/02/15	Presented by the AIDC Task Force Rapporteur
WP/04	3.2	Harmonization of AIDC Interface Control Document	19/02/15	Secretariat
WP/05	3.3	North American (NAM) Common Coordination Interface Control Document (ICD) Version 'E' Update	19/02/15	United States
WP/06	3.4	United States AIDC Interface and Implementation Update	19/02/15	United States
WP/07	3.1	AIDC Performance Indicator and Measurement	19/02/15	Secretariat
WP/08	3.6	AIDC Implementation Central American	2702/15	COCESNA
WP/09	4	Review and update of the AIDC Task Force Work Programme	19/02/15	AIDC TF Rapporteur
WP/10	5	AIDC Go-Team Initiative of the ICAO Regional Technical Cooperation project For The Caribbean Region – "*Implementation of the Performance Based Air Navigation Systems for the CAR Region*" (RLA/09/801)	19/02/15	Secretariat
WP/11	3	Go-Team Results for Dominican Republic	27/02/15	Dominican Republic

		INFORMATION PAPER		
Number	**Agenda Item**	**Title**	**Date**	**Prepared and Presented by**
IP/01	----	List of Working and Information Papers	23/02/15	Secretariat

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Agenda Item 1   Review and approval of the meeting agenda, working method and schedule

1.1   Under WP/01, the Meeting was invited to approve the provisional agenda, working method and schedule of the meeting, referring to IP/01 with the list of associated documentation. The approved meeting agenda is presented in the historical section of this report.

Agenda Item 2   **Review and Update to AIDC Regional Plan**

2.1   Under WP/02, the AIDC TF Rapporteur recalled that the AIDC Regional Plan is a guide that offers an overview of the AIDC implementation to be carried out in the Region, which collects basic information like the status and future plans of each State regarding AIDC implementation. In this regard, the Plan is important to keep track of this implementation and guide future subsequent actions, as the eligibility for *Go-Team* missions.

2.2   After review, the Plan was reformatted for better reading. The Regional AIDC Implementation Plan was updated by the Flight Information Region (FIR) representatives highlighting the following:

- COCESNA has updated their INDRA AIRCON 2100 system with the NAM Interface Control Document (ICD) message and is conducting tests with Merida ACC-CENAMER with this ICD
- Bahamas will look into their new INDRA AIRCON System to see if it has the NAM ICD included for its implemention with Miami FIR
- PIARCO informed that they will update the Regional AIDC Plan shortly

2.3   In this regard, an updated version of the AIDC Regional Plan was made as shown in **Appendix A** to this report. The following decision was adopted

DECISION
AIDC/TF 2/1   **UPDATE OF AIDC REGIONAL IMPLEMENTATION PLAN**

That, in order to keep track of the status of the AIDC implementation in the NAM/CAR Regions and to present the latest version to the ANI/WG, all AIDC TF Members review and update the AIDC Regional Implementation Plan by **30 April 2015**.

Agenda Item 3   **Implementation issues discussion**

3.1   Review of implementation procedure

3.1.1   Under WP/3, an AIDC implementation procedure was reviewed. The procedure is more a checklist of activities to be taken into account in the process of implementing AIDC. The checklist is based on a guide offered by the ANI/WG AIDC *Go-Team*. As such, this list can be modified to adapt it to the different circumstances of each FIR.

3.1.2   During the review of the checklist, the following observations were made:

- United States suggested that the procedure that applies to the implementation of AIDC be specified in the Letter of Agreements (LoAs), so that it is not necessary to duplicate this information in any other document
- COCESNA asked to include flow analysis in the item of "*Airspace/Routes/Fixes/ coordination points/Special Use*".

3.1.3   Based on the aforementioned, the checklist was updated as shown in **Appendix B** to this report. The Meeting recognized the benefit of the checklist to structure the AIDC implementation in a systematic way and to plan all the necessary elements between the two Air Traffic Services (ATS) units to implement AIDC. In this regard, the Meeting adopted the following draft conclusion:

DRAFT CONCLUSION
AIDC/TF/2/2   AIDC IMPLEMENTATION CHECKLIST

That, in order to support the implementation of AIDC in the CAR Region, the attached AIDC Implementation checklist (Appendix B refers) be adopted as a guidance for planning and implementing AIDC service.

3.1.4   Under WP/11, the Secretariat presented the AIDC performance indicator and its tracking for achieving the *Port-of-Spain* targets. Under the *Port-of-Spain a*ir navigation targets, one of them is the AIDC target and related performance indicator, which indicates:

Ground- ground Digital Coordination/Transfer

*50% of FIRs within all applicable ACCs, to have implemented at least one interface to use Air Traffic Services Inter-Facility Data Communication (AIDC)/On-line Data Interchange (OLDI) with neighboring ACCs by **December 2016***

3.1.5   In order to track the progress of the NAM/CAR Regions in this implementation and for achieving the AIDC target, a Regional AIDC Regional Plan has been agreed since the ANIWG/1 Meeting. Similarly, a status of AIDC implementation was conducted in January 2015, as shown in **Appendix C** to this report.

3.1.6   The Meeting agreed that this AIDC implementation status be presented to the ANI/WG/2 Meeting.

3.2   Harmonization of North America Interface Control Document (NAM-ICD) with Pan Regional (NAT and APAC) Interface Control Document (PAN-ICD)

3.2.1   Under WP/04, the Secretariat provided an overview of the existing AIDC ICDs, the efforts conducted for the harmonization of a global AIDC guidance material by the ICAO Operational Data Link Panel (OPLINK), and the regional actions required by the CAR/SAM Planning and Implementation Regional Group (GREPECAS) for the consolidation of this ICD. Details were provided for:

CAR/SAM ICD

- Adopted for the CAR/SAM Regions by GREPECAS/14 Meeting
- Formal name and version: Interface Control Document (ICD) for data communications between ATS units in the CAR and SAM Regions (CAR/SAM ICD) Version 1.0, dated 13 November 2006
- Based on the North American Common Coordination Interface Control Document used by Canada, Mexico and United States.

NAM ICD

- In use by Canada, Cuba, Dominican Republic, Mexico, United States and COCESNA
- Objective: develop a seamless interface between automation systems, focusing on automated exchange of ICAO flight data and achieve cross-border automation.
- Formal name and version: North American (NAM) Common Coordination Interface Control Document (ICD), Revision D, dated 20 January 2012
- Adopted for the CAR Region by the North American, Central American and Caribbean Working Group (NACC/WG) as the preferred document for AIDC implementation

ASIA/PACIFIC REGIONAL ICD FOR AIDC

- Adopted for the ASIA/PAC Regions by the Asia/Pacific Air Navigation Planning and Implementation Regional Work Group (APANPIRG)
- Formal name and version: ASIA/PAC Regional ICD for AIDC, Version 3.0

3.2.2   Regarding the efforts conducted for harmonization of ICDs, the Meeting recalled the work achieved by the ICAO Inter-regional AIDC Task Force (IR/AIDC/TF), to harmonize AIDC and consolidate an ICD for the North Atlantic (NAT) and Asia/Pacific (APAC) Regions, resulting in the development of the Pan Regional Interface Control Document (PAN ICD) for AIDC, Version 1.0, dated September 2014

3.2.3   The PAN ICD addresses the ground-ground data link provision from a technical and operational point of view, taking into account lessons learned, global implications and guidance on recent initiatives. The PAN-ICD is intended to improve safety and maximize operational benefits by promoting standardized ground-ground data link operations for use with the ATS Message Handling System

(AMHS), Aeronautical Fixed Telecommunications Network (AFTN), and/or dedicated private communication lines

3.2.4　　　　Finally, the Meeting recalled that during the GREPECAS/17 Meeting, the analysis for application of the PAN AIDC ICD in the CAR/SAM Regions was endorsed for current and future interface using the AIDC protocol; and agreed on the following Conclusion:

CONCLUSION 17/9　　　　***ACTIVITIES FOR A CONSOLIDATED INTERFACE CONTROL DOCUMENT (ICD) FOR AIDC IMPLEMENTATION IN THE CAR AND SAM REGIONS***

That, in order to ensure efficient and practical implementation of AIDC functionality at both intra- and inter-regional levels between the CAR and SAM Regions:

a)　　　ICAO, through the GREPECAS D Programme, shall assess the existing ICDs and coordinate the necessary activities for development of a consolidated Interface Control Document (ICD) for AIDC implementation in the CAR and SAM Regions; and

b)　　　D Programme Projects shall submit the results of coordination for a consolidated ICD for the CAR and SAM Regions at the GREPECAS PPRC/3 Meeting.

3.2.5　　　　The Secretariat informed that the ICAO OPLINKP acts as a focal point for the consolidation and development of Air Traffic Management (ATM) data link operational requirements, undertaking specific studies, as approved by the Air Navigation Commission.

3.2.6　　　　From the Second meeting of the OPLINKP, it was noted that:

- the Performance Analysis Network (PAN) AIDC ICD was the result of the progressive evolution of the Regional ICD for AIDC
- the AIDC Aeronautical Telecommunication Network (ATN) application has never been implemented and current AIDC applications, including the European OLDI, are all character-based applications
- the OPLINKP agreement to focus in the near term on the development of global guidance material, which would update the material in Doc 9694 - *Manual of Air Traffic Services Data Link Applications,* based on the guidance available with AIDC using the character-based conventions in Doc 4444 - *PANS/ATM — Air Traffic Management,* Appendix 3 and other regional implementations of automated ground-ground data communications.
- The establishment of an OPLINKP drafting group to see if clarification can be obtained on the future of AIDC, in light of the retention of character-based AIDC implementations in the Asia and Pacific (APAC), the North Atlantic (NAT) and the European OLDI, and to identify new material from the PAN AIDC ICD and other sources that warrant inclusion in the global AIDC guidance material.

3.2.7　　　　Finally, the Secretariat informed that the NAM ICD was suggested to the OPLINKP for its inclusion in the global AIDC guidance material.

3.2.8   Due to the aforementioned and to respond to the GREPECAS Conclusion 17/9; the Meeting agreed on the assignment of a new task, adopting the following decision:

DECISION
AIDC/TF/2/3   **COMPARISON OF EXISTING AIDC ICDS**

That in order to comply with GREPECAS Conclusion 17/9:

a)   the group formed by Costa Rica (Fernando Naranjo), United States (Dan Eaves) and COCESNA (Mayda Avila), conduct a draft analysis/comparison of CAR/SAM, NAM and PAN ICD by **12 May 2015**, for approval by the ANI/WG/2 Meeting and prepare a report for the ANI/WG to present to the Third Meeting of the GREPECAS Programmes and Projects Review Committee (PPRC/3); and

b)   ICAO coordinate the results of a) with the Rapporteur of the GREPECAS CAR D-Project - *ATN infrastructure in the CAR Region and its ground-ground and ground-air applications* for the GREPECAS PPRC/3 Meeting.

3.3   NAM ICD Changes Introduced by Version E

3.3.1   Under WP/05, United States commented that the radar/surveillance operations environment supported by the NAM ICD protocol has evolved to include 20 separate cross border domestic interfaces with three domestic–oceanic interfaces projected for 2015. In order to continue the support for the radar/surveillance efficiency and migration toward non-verbal ATS unit (ATSU) to ATSU automation within current and future interfaces, the NAM ICD-E update will support system development of radar handoff messages.

3.3.2   The NAM ICD Version 'E' update provides guidance for integrating enhanced radar/surveillance automation efficiencies and migration toward non-verbal ATSU to ATSU automation within current and future interfaces. The Document changes from version D to E include:

- Automated radar hands-off will be supported by implementing existing Interface Management Messages with the addition of a 'system heartbeat message', also used in AIDC. Additionally, the NAM ICD-E will incorporate radar Point Out messages into Class 3. By enhancing Class 3 to include point out messages, the operational boundaries between ATSUs are better served, by incorporating more options for surveillance supported coordination capabilities within the context of the NAM ICD
- Several NAM ICD messages previously categorized as 'future' will be upgraded to 'current' for optional development. The Advance Boundary Information (ABI), Tranfer of Control (TOC) and Aeronautical Operational Control (AOC) messages borrowed from the AIDC message set will be termed as 'supplemental' and may be used to support procedural interfaces between Canada and United States, or between other States desiring to implement the hybrid message functionality between interfaced NAM ICD member States.
- Additional codes to better identify errors in cross border automated data exchange have been proposed.

3.3.3   The Meeting recognized that the NAM ICD version E major changes apply to Class 2 and 3 messages from inputs from the PAN-ICD, having no major impact on Class 1 messages.

3.3.4   The Meeting agreed that, considering that the NAM ICD is the preferred ICD for the CAR Region, the following decision be adopted:

DECISION
AIDC/TF/2/4   **NAM ICD FOR USE AS REGIONAL ICD**

              That, in order to use the NAM ICD Document as a Regional NAM/CAR Document, United States inform the ANI/WG/2 Meeting of the possible changes or inclusions to the NAM ICD for its use in all the NAM/CAR States that apply this ICD.

3.4   Mexico – United States implementation of AIDC

3.4.1   Under WP/06, United States presented an overview of their AIDC implementation. They indicated the harmonization target of AIDC for the benefit of operations efficiency and for reducing the need for verbal communications. In the case of United States, this is possible through the use of three protocols: AIDC, NAM and National Airspace System (NAS), the latter being a custom protocol.

3.4.2   United States detailed the current and pending AIDC/NAM interfaces, as well as upcoming initiatives. The differences of the NAM and PAN ICDs were commented, referring to their orientation to radar and procedural environments, respectively. NAM is more adapted to domestic, radar-controlled environments, whereas PAN is more oriented to oceanic, non-radar environments. All airspace does not necessarily fit exactly in one of the two categories.

3.4.3   The Letter of Agreement for the Oakland–Mazatlán interface was offered as an example, detailing the time and distance parameters that define the interchange of messages, as well as the format of messages and samples of the test plan. The Meeting identified that the NAM ICD was included as Annex to the existing LOA, facilitating the formalization of the AIDC service. In this regard, the Meeting adopted the following decision:

DECISION
AIDC/TF/2/5   **LOA ANNEX FOR AIDC IMPLEMENTATION USING NAM ICD**

              That, in order to streamline the AIDC implementation between the ATS units, United States present a proposed template as an Annex to the existing LOA to the ANI/WG/2 Meeting.

3.4.4   From this implementation example, the Meeting recognized that there can be reduced costs by planning ahead what capabilities the neighbours have, and therefore allow implementation without software changes.

3.5   Presentation of *Go-Team* Results for Dominican Republic

3.5.1   Under WP/11, Dominican Republic highlighted the objectives and benefits of the AIDC Implementation *Go-Team* mission conducted in Dominican Republic during September 2014. The mission scope included the area control centre in Santo Domingo and also the approach control area in Punta Cana.

3.5.2   Among the important points of the visit was the development of an action plan, based on a checklist presented by the *Go-Team* mission. Also worth of mention was the importance of having a test environment, which will allow more availability for testing, thus expediting the implementation process. In the case of Dominican Republic, this test environment was not considered until after the installation of the system, so it will have to be acquired separately. The presentation of coordination operational scenarios revealed the different circumstances to be taken into account by the implementation team. This type of analysis, as the flow analysis done by COCESNA, was recommended to the Meeting for their implementation processes.

3.6   Presentation of *Go-Team* Results for COCESNA

3.6.1   Under WP/8, COCESNA presented the status of AIDC implementation in Central America and the benefits gained with the AIDC *Go-Team* conducted in November 2014. There are interfaces to be tested, both externally (Cuba and Mexico), and internally in Central America (El Salvador and Nicaragua). For the external interface and Guatemala, the NAM ICD Class 1 messages will be used, and for El Salvador and Nicaragua, the Asia/PAC ICD.

3.6.2   For this purpose, all airways were analysed, highlighting the coordination fixes and recording observations particular to the case (as is the case of defining fictitious fixes just for coordination purposes). Also, each fix was considered, indicating the time a coordination message was to be expected. It is important to remember that the Central American States have approach control centres, whereas COCESNA as such is in charge of area control.

3.6.3   Other important aspects, such as training, database configuration, test protocols and publications were stressed, as well as the agreement for an action plan to complete the AIDC implementation as proposed by the AIDC *Go-Team*.

Agenda Item 4   **Review and Update the work programme**

4.1   Under WP/09, the Meeting reviewed and updated the AIDC Task Force Work Programme as shown in **Appendix D** to this report. This update will be presented to the ANI/WG/2 Meeting in June 2015.

Agenda Item 5   AIDC Go-Team Initiative

5.1   Under WP/10, the Secretariat commented that the AIDC Task Force, created during the ANI/WG/1 Meeting, has the responsibility of streamlining the coordination, implementation and trials of AIDC in the NAM/CAR Regions. As part of this process, the Task Force has drafted a generic implementation procedure to serve as a template for the States for the implementation effort. Also, it was highlighted that the ICAO Technical Cooperation Projects are tools defined for supporting and assisting the States on their implementation matters, facilitating experts, framework and administrative facilities to streamline the achievement of their milestones, as is the case for the ICAO Regional Technical Cooperation Project for the Caribbean Region – "*Implementation of the Performance Based Air Navigation Systems for the CAR Region*" (RLA/09/801).

5.2   In this regard, the Secretariat recalled the *Go-Team* initiative as approved by the Third Steering Committee Meeting (SCM/3) of the RLA/09/801 Project as a mutual supporting mechanism for the development of the State's own implementation capacity (qualified staff), assisting States in the implementation of air navigation and safety matters.

5.3   One of the implementation topics requested by the States is on AIDC. In this regard, AIDC *Go-Teams* were formulated with the following main objectives:

          a)   explain the NAM Interface Control Document (ICD) – scope and implementation; use of AIDC and On-Line Data interchange (OLDI);

          b)   review the AIDC agreement and considerations including the implementation plan for the AIDC circuit;

          c)   evaluate the trial results and Air Traffic Service (ATS) message exchange;

          d)   check and validate that the State´s AIDC circuit is properly implemented and operating;

          e)   participate with the State to technically assist and support the AIDC performance; and

          f)   assist in scoping AIDC objectives and advantage of incremental capability evolution.

5.4   The composition of the AIDC Project *Go-Team* for any State was explained, as well as the States responsibilities and the on-site activities, highlighting the deliverables of an AIDC *Go-Team*:

          •   Action Plan for AIDC implementation
          •   Mission report on AIDC implementation prepared by the *Go-Team*

5.5   The follow-up on the *Go-Team* results is conducted by the ICAO NACC Regional Office through the regional implementation groups (ANI/WG, NACC/WG, etc.) as per the approved Action Plan. In 2014, ICAO conducted two AIDC *Go-teams*, one for Dominican Republic and the other for COCESNA.

Agenda Item 6   **Other matters**

6.1   No other business was discussed.

APPENDIX A
AIDC REGIONAL IMPLEMENTATION PLAN

State	1 FDP capability / Implementation date / manufacturer/model	2 Adjacent FIR	3 Testing and Implementation Date for Adjacent FIR	4 Point(s) of Contact	5 Bilateral Agreement or ICD	6 Circuit/Bandwidth used	7 Comments
Cuba	yes - Oracle Version 9 modified by LITA-CUBA	FIR Miami	Operational, December 15, 2011	Víctor Manuel Machado Sánchez, Operation Management Havana ACC (537)-649-7281, email: victormachado@aeronav.ecasa.avianet.cu	NAM-ICD Version D	19200 BPS	
		FIR Merida	Operational, March 9, 2012				
		FIR Kingston	TBD				
		FIR CENAMER	March/April 2015				
		FIR Haiti	TBD				
Dominican Republic	Yes TopSky-ATC, Thales ATM	KZMA/Miami ARTCC	Q4 2015	Julio Cesar Mejia A. Enc. ATM, jmejia@idac.gov.do, 809 274-4322. Ext. 2103 Fernando Casso, fcasso@idac.gov.do	NAM-ICD Version D	AMHS: 64 Kbps	
		Curacao	TBD		NAM-ICD Version D	TBD	
Mexico	Yes- FDP=Topsky, Producer= THALES ATM, INFO= Four Control Centres, all Mexico covered	Central America (COCESNA/CENAMER)	May-15	Ing. Jose de Jesus Jimenez Director de Sistemas Digitales SENEAM/SCT/MÉXICO disda@sct.gob.mx 55 57 86 55 32	NAM-ICD Version D	19200 bps	
		Merida ACC- La Habana ACC	Operational, March 9, 2012		NAM-ICD Version D		
		Los Angeles ARTCC- Mazatlan ACC	Operational		NAM-ICD Version D		
		Houston ARTCC-Merida ACC/ Monterrey ACC;	Operational		NAM-ICD Version D		
		Albuquerque ARTCC- Monterrey	Operational		NAM-ICD Version D		
		Oakland - Mazatlán	March 2015		PAN ICD V.1		
United States	Yes - The domestic FDP is integrated into the Host Automation / En Route Automation Modernization (ERAM) systems. Lockheed-Martin (LMCO) is the prime contractor for the Host/ERAM system. The flight data function of the San Juan Combined Center / Radar Approach Control (CERAP) is integrated into the Miami Air Route Traffic Control Center (ARTCC) Host/ERAM. Ocean21 provides its own FDP processing in the oceanic environment. LMCO is also the contractor for Ocean21.	Seattle ARTCC- Vancouver ACC	Operational	Dan Eaves, Federal Aviation Administration Air Traffic Control Specialist, Dan.Eaves@FAA.gov, 202-385-8492	NAM-ICD Version D	US- Mexico: NADIN/AFTN 64 kbps X.25 US- Cuba : MEVA II 19.2 kbps connection to NADIN	
		Salt Lake ARTCC- Edmonton ACC/Winnipeg ACC;	Operational		NAM-ICD Version D		
		Minneapolis ARTCC- Winnipeg ACC/Toronto ACC;	Operational		NAM-ICD Version D		
		Cleveland ARTCC- Toronto	Operational				
		Los Angeles ARTCC- Mazatlan ACC	Operational				
		Miami ARTCC – Havana	Operational				

1. **Does your current Flight Data Processing System (FDP) have the capacity to process CPL-LAM messages? (Y/N) If not, when will your FDP have this capacity? Indicate date If yes, please indicate FDP model, manufacturer and any relevant equipment information to identify the system.**
2. **Indicate with what adjacent FIR/ATS Unit is the CPL-LAM implementation required**
3. **Please indicate intended date for CPL-LAM testing and implementation**
4. **Please provide Point of Contact for further CPL-LAM coordination (name, title, e-mail, phone number)**
5. **If CPL-LAM has been implemented, please provide bilateral agreement(s) for its operation, if applicable (for example ICD document)**
6. **CPL-LAM messages are transmitted through AFTN circuits, what is the current AFTN circuit speed and, if any, upgrade for CPL-LAM implementation**
7. **Provide comment or concerns for CPL-LAM implementation**

State	1 FDP capability / Implementation date / manufacturer/model	2 Adjacent FIR	3 Testing and Implementation Date for Adjacent FIR	4 Point(s) of Contact	5 Bilateral Agreement or ICD	6 Circuit/Bandwidth used	7 Comments
		ACC.ACC					
		Boston ARTCC-Montreal ACC/Moncton ACC.	Operational				
		Houston ARTCC-Merida ACC/Monterrey ACC;	Operational				
		Albuquerque ARTCC-Monterrey	Operational				
		. Class I Miami ARTCC - Havana ACC	Operational				
		Miami ARTCC – Havana ACC (Class II)	Q4 2015				
		Oakland - Mazatlán	March 2015		PAN ICD V.1		
		Vancouver - Oakland	April 2015		NAM-ICD Version D		
		Miami - Nassau	TBD		NAM-ICD Version D		
		San Juan – Santo Domingo	Q4 2015		NAM-ICD Version D		
		Miami - Santo Domingo	Q4 2015		NAM-ICD Version D		
COCESNA (CENAMER)	INDRA Aircon 2100 Renovado	Havana	nam	Roger Perez (roger.perez@cocesna.org) Mayda Avila (mayda.avila@cocesna.org)	NAM-ICD Version D	N/A (the current AFTN circuit speed is 1.2 kbps internally and 9.6 kbps the internationals)	The ability to process this type of messages will be complete once COCESNA have installed the New Control Centre. The required bandwidth must be analysed prior to the implementation of this type of messages; however, considering only text messages we estimated that the actual bandwidth via AFTN is sufficient.
		Panama	TBD(PAC)		PAC ICD		
		Guatemala	Q4 2015 (NAM)		NAM-ICD Version D		
		El Salvador	June 2015(PAC)		PAC ICD		

1. **Does your current Flight Data Processing System (FDP) have the capacity to process CPL-LAM messages? (Y/N) If not, when will your FDP have this capacity? Indicate date If yes, please indicate FDP model, manufacturer and any relevant equipment information to identify the system.**
2. **Indicate with what adjacent FIR/ATS Unit is the CPL-LAM implementation required**
3. **Please indicate intended date for CPL-LAM testing and implementation**
4. **Please provide Point of Contact for further CPL-LAM coordination (name, title, e-mail, phone number)**
5. **If CPL-LAM has been implemented, please provide bilateral agreement(s) for its operation, if applicable (for example ICD document)**
6. **CPL-LAM messages are transmitted through AFTN circuits, what is the current AFTN circuit speed and, if any, upgrade for CPL-LAM implementation**
7. **Provide comment or concerns for CPL-LAM implementation**

State	1 FDP capability / Implementation date / manufacturer/model	2 Adjacent FIR	3 Testing and Implementation Date for Adjacent FIR	4 Point(s) of Contact	5 Bilateral Agreement or ICD	6 Circuit/Bandwidth used	7 Comments
		Nicaragua	July 2015(pac)		PAC ICD		
		Merida	NAM		NAM-ICD Version D		
		Kingston	TBD (?)				
		Bogota	TBD(PAC)		PAC ICD		
		Guayaquil	TBD(PAC)		PAC ICD		
Nassau	Indra Aircon 2100 - TBD	Miami	TBD		NAM-ICD Version D		
Port-au-Prince	TBD				NAM-ICD Version D		
PIARCO	SELEX ATM System	SAL ACC	TBD	TBD	NAM-ICD Version D		
		NEW YORK ACC	TBD		PAN ICD		
		French Guyanne,	TBD		???		
		Maiquetia,	TBD				
		San Juan (Miami)	TBD		NAM-ICD Version D		
Curacao		Maiquetia ACC		Jacques Lasten, ATS Manager, DC-ANSP, j.lasten@dc-ansp.org			
		Kingston ACC			NAM-ICD Version D		
Costa Rica	No - FDP Server must upgrade – Q1 2018	FIR CENAMER	TBD	Warren Quirós navegacionaerea.cns@dgac.go.cr +50622314924 Fernando Naranjo Elizondo fer_nar_eli@hotmail.com	NAM-ICD Version D	1200 bps	AIDC may be implemented until the upgrade of El Coco Center

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1. **Does your current Flight Data Processing System (FDP) have the capacity to process CPL-LAM messages? (Y/N) If not, when will your FDP have this capacity? Indicate date If yes, please indicate FDP model, manufacturer and any relevant equipment information to identify the system.**
2. **Indicate with what adjacent FIR/ATS Unit is the CPL-LAM implementation required**
3. **Please indicate intended date for CPL-LAM testing and implementation**
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5. **If CPL-LAM has been implemented, please provide bilateral agreement(s) for its operation, if applicable (for example ICD document)**
6. **CPL-LAM messages are transmitted through AFTN circuits, what is the current AFTN circuit speed and, if any, upgrade for CPL-LAM implementation**
7. **Provide comment or concerns for CPL-LAM implementation**

AIDC TASK FORCE IMPLEMENTATION PROCEDURE CHECKLIST

ICD NAM Implementation
- Duplicate/Errored Flight Plans EFFORT
- General Planning issues
  - Construct Overview Briefing Strategy
  - Identify Operational Impacts/Changes
  - Definition of Internal Coordination Requirements
  - Identify facility (ies) Areas/Sectors Involved
  - Identify/assess known issues (ex. MEVA, etc.)
  - Construct Requirement Matrix (resources, staff, etc.)
  - Construct Fallback /Recovery Plan
  - Interfacing facility impacts
  - Risk assessment
  - Identify System Metrics (Performance)- track progress
  - Define project milestones (scope- gradual implementation)
  - Identify key personnel for Site Implementation. ATC, Automation, Data Spec, Labor Relations, Service POCs
  - Identify Existing /Required Telecommunications
  - Identify limitations/impacts of other projects or Implementations
  - Coordinate project /facility / interfacility POC list/contact numbers
  - Review/coordinate site unique Implementation documents
  - Review LOAs existing/changes Advantages of Automation Appendix
  - Develop a procedure to capture/document problems or lessons learned Non-Ops/Automation Ops
  - PreCoordinate Test Support Needed: Site Automation - Comm POCs
- SOFTWARE/HARDWARE ADAPTATION
  - Airspace/Routes/Fixes/ coordination points/ Special Use
  - message class/ type is used/times/errors/triggers, etc.
  - Systems Field differences between sites - What is an error to each type message - Common errors from lessons learned, how does system react to those issues
  - Identify any System Configurations and/ or Settings needed to enable/disable processing
  - Dedicated Test Bed
- TESTING – Three Phases Non-Operational Offline Non-Operational Operational
  - Non Operational Testing – Offline Configurations which need testing: Test Facility A to Test Facility B Test Facility A to Test Facility C
    - Define Non-Ops Offline Testing Capability Testing with FAA Technical Center - Can test configuration be isolated from operational system? - Can telecommunications test line and operational line be shared without impact - Use of Test AFTN addresses
    - Test Prep Adaptation parameters: Time /distance/display/etc Prepare Test procedures Construct test scenarios that duplicate actual traffic Determine/use system ability to capture test results Identify Test Coordinator & personnel (Cadre if needed)
    - Setup Test Specifics Facility Scheduling Start time Duration CPL scenario exchange/review Confirm Implementation POCs
    - Conduct Non-Ops Offline Testing (Document Test Results Data

Reduction Data Analysis Test Review)
- Non Operational Testing
  - Test Prep Adaptation parameters: Time /distance/display/etc Prepare Test procedures Construct test scenarios that duplicate actual traffic Determine/use system ability to capture test results Identify Test Coordinator & personnel (Cadre if needed)
  - Setup Test Specifics Facility Scheduling Start time Duration CPL scenario exchange/review Confirm Implementation POCs
  - Conduct Non-Ops Testing (Document Test Results Data Reduction Data Analysis Test Review)
- OPERATIONAL/LIVE - TESTING
  - Test Prep Tailor Ops Test Plan for Facility Identify Test Coordinator & personnel (Cadre), Coordinate test effort (Pre-test Meeting) Subject Matter Experts Site XXX Site YYY Support including Comm Tailor test procedure to capture problems and lessons
  - Setup Test Specifics Start time/Stop Time Duration Review test procedures Verify Contacts Identify Sectors/Personnel Document test results -
  - Pre-Test Meeting Coordinate test
  - Conduct Non Ops/Ops Test Conduct Test Familiarization Conduct external & internal coordination (Document Test Results Data Reduction Data Analysis Operations Analysis)
- Final Operational Implementation

TRAINING
- Initial Facility Tech Ops Familiarization
- Develop Site Unique Ops Familiarization
- Update of Training courses/plan
  - Complete Interface specific Training Identify any Needed Training Updates
- Complete training course refresher if necessary

Initial Performance Monitoring

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APPENDIX C
STATUS OF AIDC IMPLEMENTATION

		Region	AIDC/ OLDI implemented (Y/N)	If Yes, indicate ICDs used				
	Central American	CAR	N					
	Curacao	CAR	¥ N?		IMPLEMENTED:		35	
	Habana	CAR	Y	NAM				
	Houston Oceanic	CAR	Y	NAM, NAS	TOTAL FIRS:		43	
	Kingston	CAR	N					
	Mazatlan Oceanic	CAR	N - Scheduled 2 Feb 2015	AIDC	IMPLEMENTATION RATE:			81.40%
	Mexico	CAR	Y	NAM				
	Miami Oceanic	CAR	Y	NAM,NAS				
	Nassau	CAR	N	N				
	New York Oceanic	NAT	Y	AIDC (NAT now PAN)/NAS				
	Port-Au-Prince	CAR	N	N				
	PIARCO	CAR	N	N				
	San Juan	CAR	Y	NAS				
	Santo Domingo	CAR	N	N				
	Edmonton	NAM	Y	NAM				
	Gander Domestic	NAM	Y	AIDC				
	Montreal Domestic	NAM	Y	NAM				
	Vancouver Domestic	NAM	Y	NAM				
	Winnipeg Domestic	NAM	Y	NAM				
	Moncton Domestic	NAM	Y	NAM				
	Albuquerque	NAM	Y	NAM/NAS				
	Anchorage /Anchorage Artic	NAM	Y	AIDC/NAM				
	Anchorage continental Oceanic	NAM	Y	AIDC/NAM/NAS				
	Atlanta	NAM	Y	NAS				
	Boston	NAM	Y	NAS				
	Chicago	NAM	Y	NAS				
	Cleveland	NAM	Y	NAM/NAS				
	Denver	NAM	Y	NAS				
	Ft. Worth	NAM	Y	NAS				

		Region	AIDC/ OLDI implemented (Y/N)	If Yes, indicate ICDs used				
	Indianapolis	NAM	Y	NAS				
	Jackonville	NAM	Y	NAS				
	Kansas City	NAM	Y	NAS				
	Los Angeles	NAM	Y	NAM/NAS				
	Memphis	NAM	Y	NAS				
	Miami	NAM	Y	NAM/NAS				
	Minneapolis	NAM	Y	NAM/NAS				
	New York	NAM	Y	NAS				
	Toronto	NAM	Y	NAM				
	Oakland	NAM	Y	NAS				
added	Oakland Oceanic	NAM	Y	AIDC/NAS				
	Salt Lake	NAM	Y	NAM/NAS				
	Seattle	NAM	Y	NAM/NAS				
	Washington	NAM	Y	NAS				
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APPENDIX D
AIDC TASK FORCE WORK PROGRAMME

Description	Start	Finish	Status	Deliverable	Responsible
1. AIDC Trials and Implementation	**28/10/2013**	**09/06/2014**			
1.1 Update Regional Plan	28/10/2013	15/05/2014	Ongoing	Updated Regional Plan	Rapporteur
1.2 Determine reference ICD	**28/10/2013**	**15/05/2014**			
1.2.1 Evaluate potential ICDs to adopt	28/10/2013	20/11/2013	Completed	Evaluation of ICDs	Cuba;United States
1.2.2 Draft Final recommendations for adoption of ICD Doc	21/11/2013	17/02/2014	Completed	Draft document of recommendation of adoption of ICD	Task Force
1.2.3 Approve reference ICD document	18/02/2014	18/02/2014	Completed	Approved reference ICD document	Task Force
1.2.4 Draft recommendations for modifications of reference ICD	18/02/2014	31/03/2014	Completed	Draft document of recommendations for modification of ICD	COCESNA;Dominican Republic;United States
1.2.5 Distribute recommendations	01/04/2014	01/04/2014	Completed		Rapporteur
1.2.6 Approve recommendations for modifications of ICD document	25/04/2014	25/04/2014	Completed	Approved recommendations for modifications (no modification submitted)	Task Force
1.2.7 Submit modification of ICD	28/04/2014	15/05/2014	Completed	Modification request (no modificatios submitted)	Task Force
1.3 Maintain and update ICD					
1.3.1 Create a template for the annexes to the LOAs with the details of the parameters and agreements pertaining the procedures under NAM ICD	01/03/2015	01/04/2015	Valid	Annex Template	United States
1.3.2 Include wording or mechanisms to give regional scope to the NAM ICD document	01/03/2015	01/04/2015	Valid	Updated NAM ICD	United States
1.4 Create testing and implementation procedures	**17/12/2013**	**06/06/2014**			
1.4.1 Suggest and comment recommendations for trials/implementation of AIDC	17/12/2013	17/02/2014	Completed	Collection of recommendations	Task Force
1.4.2 Draft implementation procedures	18/02/2014	23/05/2014	Completed	Draft document for testing and implementation procedures	Ad hoc Group
1.4.3 Distribute draft for comments	26/05/2014	26/05/2014	Completed		Rapporteur
1.4.4 Approve implementation procedures	27/05/2014	06/06/2014	Completed	Approved testing and implementation procedures	Task Force
1.5 Create test procedure guideline					
1.5.1 Draft a testing guideline	01/03/2015	27/03/2015	Valid	Draft test procedure guideline	COCESNA
1.5.2 Distribute draft for comments	27/03/2015	30/03/2015	Valid	-	Task Force Rapporteur
1.5.3 Submit comments to the testing guideline	30/03/2015	10/04/2015	Valid	Comments to the testing guideline	Task Force
1.5.4 Approve the testing guideline.	13/04/2015	15/04/2015	Valid	Approved testing guideline	Task Force
1.6 Follow up on testing and implementation	**09/06/2014**	**09/06/2014**	**Ongoing**	**Test and implementation results documentation for each implementation.**	**Task Force**
2. Mitigation of FPL issues	**28/10/2013**	**28/04/2014**			
2.1 Formation of FPL monitoring group	**21/03/2014**	**25/04/2014**	**100%**		
2.1.1 Create initial membership list	21/03/2014	21/03/2014	Completed	Initial membership list	
2.1.2 Draft terms of reference	24/03/2014	11/04/2014	Completed	Draft document of terms of reference	Rapporteur
2.1.3 Distribute terms of reference	14/04/2014	14/04/2014	Completed		Rapporteur

Description	Start	Finish	Status	Deliverable	Responible
2.1.4 Approve terms of reference	25/04/2014	25/04/2014	Completed	Approved terms of reference	Task Force
2.2 Create mitigation action plan	**28/10/2013**	**28/04/2014**			
2.2.1 Recollect results and lessons learned from FPL solutions carried out in E/CAR, CA and USA-Cuba	28/10/2013	23/01/2014	Completed	Collection of results and lessons learned	Ad hoc Group
2.2.2 Report evaluation and comments of statistics recollected	24/01/2014	18/02/2014	Completed	Evaluation document	Ad hoc Group
2.2.3 Draft action plan for mitigation/solution of issues	19/02/2014	11/04/2014	Completed	Draft document of action plan	Ad hoc Group
2.2.4 Distribute action plan	14/04/2014	14/04/2014	Completed		Rapporteur
2.2.5 Approve action plan	25/04/2014	25/04/2014	Completed	Approved action plan	Task Force
2.2.6 Follow up on action plan	28/04/2014	28/04/2014	Ongoing	Plan execution results documentation	FPL Monitoring Group

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