



ICAO

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North American, Central American and Caribbean Office

WORKING PAPER

E/CAR/CATG/3 — WP/13
19/10/16

Third Eastern Caribbean Civil Aviation Technical Group Meeting (E/CAR/CATG/3)
Basseterre, Saint Kitts and Nevis, 19 to 21 October 2016

Agenda Item 3: Air Navigation Matters

3.2 Follow-up on the implementation of the NAM/CAR Regional Performance Based Air Navigation Plan (RPBANIP) and the *Port-of-Spain* Declaration Air Navigation Targets in the Eastern Caribbean:

3.2.2 E/CAR/NTG and E/CAR/RD Ad hoc Group Reports

E/CAR/NTG AND E/CAR/RD AD HOC GROUP REPORTS

(Presented by the E/CAR/NTG-E/CAR/RD Rapporteur)

EXECUTIVE SUMMARY	
This Working Paper presents the report of the E/CAR/NTG/7 and the E/CAR/RD/5 Meetings.	
Action:	The suggested actions are presented in Section 3
<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">• Sixth Eastern Caribbean Network Technical Group (E/CAR/NTG/6) and Fourth Eastern Caribbean Radar Data Sharing Ad hoc Group (E/CAR/RD/4) Meetings

1. Introduction

1.1 The Seventh Eastern Caribbean Network Technical Group (E/CAR/NTG/7) and Fifth Eastern Caribbean Radar Data Sharing Ad hoc Group (E/CAR/RD/5) meetings were held at the Ocean Terrace Inn Hotel and Resort in Basseterre, St. Kitts and Nevis, from 17 to 18 October 2016. The Meeting was attended by eight (8) States/Territories and three (3) International Organizations, totalling twenty-four (24) participants.

2. Discussion

2.1 Under Agenda Item 1 the Meeting approved the agenda and made minor changes to the schedule.

2.2 Under Agenda Item 2, the Meeting reviewed and followed-up to the E/CAR/NTG and E/CAR/RD valid conclusions/decisions, the valid conclusions related to the E/CAR AFS Network formulated by the Second Eastern Caribbean Civil Aviation Technical Group Meeting (E/CAR/CATG/02) and the valid conclusions from the ANI/WG/3 and NACC/WG meetings as follows:

- E/CAR/NTG and E/CAR/RD: All conclusions and decisions were considered completed or superseded, except for DECISION E/CAR/NTG/5/8 Completion of E/CAR AFS Network Standard Operations Procedures (SOP).
- E/CAR/CATG/02: The E/CAR/DCA/26 Meeting congratulated the effective work of the E/CAR/NTG Group on the Network improvements and performance, and the implementation of Phase I of the Radar Data Display. It concluded that the E/CAR/NTG has fulfilled its work as mandated by the E/CAR DCAs and therefore, agreed to keep the E/CAR/NTG just for the next meeting in 2016, passing its Network functions to the E/CAR CNS Committee. However, during the NACC/DCA/6 Meeting the E/CAR/DCAs decided that the Eastern Caribbean Network Technical Group (E/CAR/NTG) continue to be active in order to support the E/CAR region.
- ANI/WG/3 and NACC/WG: Conclusions are presented in the Appendix B of Agenda Item 2 of the draft report.

2.3 Under Agenda Item 3, the Meeting took note of the challenges and activities on local equipment operation conditions. Similarly, the Meeting took note of the maintenance procedures timelines and its escalation conditions. The following matters were noted:

- a) St. Kitts - Saint Kitts is presently pursuing government approval for the funds to replace one (1) of the routers that failed as a result of environmental damage.
- b) Dominica Douglas Charles site is currently out of service due to Force Majeure. Equipment room was destroyed by flood.
- c) Dominica's power fluctuations: There is the constant issue as it relates to power regularity and conditioning on the island. The frequency of outages has decreased but it is suggested a power regulation analysis be conducted at both airports in order to deliver safe and clean power to AFS hardware.
- d) Guadeloupe: The secondary router is unserviceable due to environmental conditions not being respected.
- e) TSTT's failure reporting system registered a total of one hundred and nine (109) tickets (August 2015 to September 2016). The failures were further categorized as link failures (33%), power (25%), router related (28%), application (4%) and no fault found (10%).
- f) E/CAR/AFS Network maintenance activity is in progress: September 11 - November 4, 2016. Oversight visits and maintenance activities of the E/CAR/AFS

network and the AMHS/AISS user end equipment were successfully conducted by Trinidad and Tobago over the months of February to April of 2016.

- g) Barbados informed that the Network availability over the period was satisfactory, that all failures or faults reported during the period were rectified and suggested that an arrangement of automatic changeover of routers on failure could further improve reliability.
- h) ECCAA reported that the network performed reasonably well. Very few down times were reported and on those occasions the outages were very short and did not impact heavily on the operations of the units.
- i) France reported that the E/CAR/AFS network is globally compliant with operational requirements, but recommended some improvements both in technical and procedural aspects.

2.4 The following Decisions and Conclusion were formulated:

DECISION

E/CAR/NTG/7-RD/5/1

ROUTER AUTOMATIC CHANGEOVER CAPABILITY

That, in order to increase the reliability of the nodes and the network, TSTT analyze the feasibility and cost-effectiveness of implementing automatic changeover feature in the CISCO Routers by the E/CAR/NTG/8 Meeting.

DRAFT CONCLUSION

E/CAR/NTG/7-RD/5/2

REPLACEMENT OF AFS NETWORK NODE REDUNDANCY IN GUADELOUPE

That, in order to restore the node redundancy for the replacement of the failed equipment in Guadeloupe:

- a) Trinidad and Tobago submit the cost of the replacement by December 15, 2016; and
- b) France report by **30 January 2017**, on the actions taken to conduct this replacement.

DECISION

E/CAR/NTG/7-RD/5/3

CYBER SECURITY VULNERABILITY ASSESSMENT

That, due to the increased number of cyber-attacks on systems, in order to increase the reliability of the nodes and the network, ECCAA, Barbados, Trinidad and Tobago, United States and France conduct a cyber-security vulnerability assessment on the E/CAR AFS Network by the E/CAR/NTG/8 Meeting.

2.5 Under WP/9, the MEVA TMG Coordinator presented information on the combined regional activities in the Central and Eastern Caribbean, which are carried out through bilateral agreements in order to improve the telecommunication in the area and noted the implementation of a hot line between Trinidad and Tobago and San Juan.

2.6 Under Agenda Item 4, the meeting took note of the ongoing activities related to ATFM. A bilateral agreement between the United States and Trinidad and Tobago is currently under discussion for flight data exchange in keeping with the objectives of ATFM, utilizing the System Wide Information Management concept. The intention is to incorporate the FAA's Traffic Flow Management data into the Trinidad and Tobago ATFM system. The FAA has requested the Piarco Multi Radar Tracker (MRT) data which presently comprises the Piarco radar and the French Dacota (Martinique and Guadeloupe radars MRT) in order to combine and display the data on the Aircraft Situation Display (ASD) for the Caribbean. In this regard, the following Conclusion was formulated:

CONCLUSION**E/CAR/NTG/7-RD/5/4****REVISION OF LETTERS OF AGREEMENT**

That, in order to formalize the radar data sharing activities and foster the regional E/CAR ATFM initiative, France and Barbados review their existing LOAs to include the authorization to Trinidad and Tobago to exchange the Multi Radar Tracker (MRT), including any surveillance type feeds with Eastern Caribbean and Caribbean States under the intent of the E/CAR/RD project; and the FAA as part of the ATFM initiative.

2.7 Regarding surveillance sharing, the following conclusions were formulated:

CONCLUSION**E/CAR/NTG/7-RD/5/5****REACTIVATION OF TRINIDAD AND TOBAGO - VENEZUELA RADAR EXCHANGE**

That, in order to continue the Trinidad and Tobago - Venezuela Radar Exchange activities, that the ICAO NACC Office in coordination with the SAM Office to contact Venezuela for the reestablishment of the coordination activities with Venezuela for this purposes by 30 December 2016

CONCLUSION**E/CAR/NTG/7-RD/5/6****TRINIDAD AND TOBAGO - GUYANA RADAR EXCHANGE**

That, in order to share surveillance data in benefit of improving the accuracy and precision of the surveillance data, Trinidad and Tobago to:

- a) Coordinate a meeting with Guyana for this purposes by 30 December 2016; and
- b) Inform the ECAR/NTG/8 Meeting of this progress.

2.8 The FAA and Trinidad and Tobago updated the meeting on their actions for the agreement arrangement for radar data as follows:

- a) FAA-St. Maarten radar agreement on going but timeline for accomplishment is October 2017
- b) Trinidad and Tobago- St. Maarten radar agreement: is being drafted and an update will be informed by the E/CAR/NTG/8 Meeting

2.9 Antigua informed the meeting that the Government of Antigua and Barbuda has recommitted itself to the acquisition of a surveillance system.

CONCLUSION

E/CAR/NTG/7-RD/5/7

ANTIGUA RADAR DATA

That, in order to ensure the appropriate planning and coordination for testing and integrating the radar data from the Antigua Radar into the E/CAR MRT data, that ECCAA/ Antigua to provide by 30 December 2016 the details planning (timelines and actions), technical information (radar data format, circuit speed, etc.) from the radar in Antigua.

2.10 Barbados briefed the meeting on their ADS-B /MLAT developments in Barbados, noting the current projection for completion of the installation is in December 2016.

DECISION

E/CAR/NTG/7-RD/5/8

INTEGRATION OF BARBADOS SURVEILLANCE DATA INTO THE PIARCO MRT AND EXCHANGE OF PIARCO MRT WITH BARBADOS

That, in order to plan and timely coordinate the integration of the Barbados surveillance data into the MRT System, Trinidad and Tobago and Barbados work together to coordinate by 30 December 2016:

- a) the integration of the Piarco MRT at Barbados during the next planned visit of the ATM vendor (Leonardo).
- b) the integration of the Barbados surveillance (radar/ADS-B/MLAT) into the Piarco MRT.

2.11 Considering the current and short term ADS-B activities, the following conclusion was adopted:

CONCLUSION

E/CAR/NTG/7-RD/5/9

ADS-B OUT IMPLEMENTATION IN THE E/CAR REGION

That, in order to prepare the E/CAR Region and take advantage of the operational benefits of ADS-B out:

- a) France, Barbados and Trinidad and Tobago to provide the E/CAR/NTG and ICAO their theoretical surveillance coverages (by flight levels 100, 150, 200 and 250) from their planned ADS-B Stations by 30 December 2016;
- b) E/CAR States and Territories inform the NTG and ICAO by 30 December 2016 of new plans for ADS-B implementation activities;
- c) E/CAR/NTG Rapporteur coordinate with the ANI/WG ADS-B TF Rapporteur for aligning the different E/CAR ADS-B activities with the regional ADS-B plan and implementation by February 2017; and
- d) E/CAR/NTG-RD Rapporteur to update the surveillance plan and inform the E/CAR/NTG/8 Meeting of these progress.

2.12 Under Agenda Item 5, the meeting reviewed the results of the surveillance data questionnaire that was distributed to States to complete the information. The following conclusions were formulated:

CONCLUSION

E/CAR/NTG/7-RD/5/10 SURVEILLANCE DATA REQUIREMENTS FOR DOMINICA AND ST. VINCENT

That,
ECCAA inform the E/CAR/NTG Rapporteur of the surveillance data requirements for Dominica and St. Vincent by 30 November 2016.

CONCLUSION

E/CAR/NTG/7-RD/5/11 SURVEILLANCE DATA REQUIREMENTS FOR ANGUILLA AND MONTSERRAT

That,

- a) E/CAR/NTG Rapporteur send a letter to Anguilla and Montserrat requesting information on whether they wish to be part of Phase II and to confirm if their requirement will be situational awareness; and
- b) ICAO to write to ASSI regarding their commitment to part of Phase II and the agreed procurement process.

DECISION

E/CAR/NTG/7-RD/5/12 DEFINITION OF RADAR DATA DISPLAY PHASE II PROCESS

That, in order to update the activities and agreements for Phase II of the Radar Data Sharing, the E/CAR/NTG Rapporteur, by 30 December 2016, in coordination with the RFP ad hoc Group inform of the Planning to be implemented for the E/CAR Radar Data Display Phase II Process.

2.13 Under Agenda Item 6, the Secretariat recalled that with the approval of the Sixth Eastern Caribbean Network Technical Group (E/CAR/NTG/6) and Fourth Eastern Caribbean Radar Data Sharing Ad-hoc Group (E/CAR/RD/4) Meetings Final Report, reference ICAO State Letter EMX0769 dated 5 August 2015, the E/CAR/DCA approved the E/CAR/NTG and RD Terms of Reference and work program contained in the Final Report.

2.14 Considering that there will be no E/CAR/CATG meeting in 2017, Antigua kindly offered to host a 2-day meeting of the E/CAR/NTG/8 and E/CAR/RD/6 meetings to be held in October 2017.

2.15 Under Agenda Item 7 and WP/20, ICAO presented the first year's performance evaluation of the implementation of the ICAO "No Country Left Behind (NCLB)" Strategy developed by the ICAO NACC Regional Office. The Secretariat highlighted that if the Radar Data sharing States interested in implementing Phase II organized their common requirements and are willing to work

together for a common Project, a NCLB Project may be formulated and propose for funds. In this regard the Meeting agreed in the following Conclusion:

CONCLUSION**E/CAR/NTG/7-RD/5/13****PROJECT PROPOSAL FOR ECAR REGION UNDER ICAO
NACC NCLB**

That, in order to seek the possible for funds and resources for the Radar Data Sharing Phase II Project or the regional Surveillance improvements with ADS-B States, the ECARNTG Rapporteur work with the NTG Members for formulating a Project Proposal by February 2017.

The complete report of the E/CAR/NTG/7 and the E/CAR/RD/5 meetings are available on the ICAO NACC office website at: <http://www.icao.int/NACC/Pages/meetings>.

3. Suggested Action

3.1 The Meeting is invited to:

- a) Take note of the progress report of the E/CAR/NTG and RD groups; and
- b) Agree to any other actions as deemed appropriate.