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WORKING PAPER

E/CAR/CATG/3 — WP/11
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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:

3.2.1 Progress reports of the AIM, AGA, ATM, CNS, MET and SAR Committees

PROGRESS REPORT ON MET ISSUES AND COORDINATION

(Presented by the E/CAR/CATG Chairperson)

EXECUTIVE SUMMARY	
This working Paper presents an update of working methods with the Caribbean Meteorological Organisation (CMO) to address Aeronautical Meteorology matters in the absence of a MET Committee.	
Action:	The suggested action is presented in Section 3.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency• Environmental Protection
<i>References:</i>	<ul style="list-style-type: none">• Second Eastern Caribbean Civil Aviation Technical Group Meeting (E/CAR/CATG/2), Miami, United States, 15 to 17 June 2015

1. Introduction

1.1 To date there is still no Meteorological (MET) Committee of the E/CAR/CATG. This lack of participation has been reflected in the last two E/CAR/CATG meetings. As a result of this there has been no discussion on MET matters at any previous meetings. It was decided at the last E/CAR/CATG2 meeting that the Chairperson would continue to be the Coordinator between the E/CAR/CATG and the Caribbean Met Organization (CMO) in order to facilitate the transfer of information between the two groups.

2. Discussion

MET coordination agreement CMO and E/CAR/CATG

2.1 In order to seek a way to progress on the Meteorological issues and activities requested in Air Navigation in the Eastern Caribbean, Mr. Glendell De. Souza the Scientific Officer and Coordinator of the Caribbean Meteorological Organisation (CMO) was contacted by the E/CAR/CATG Chairperson and has agreed to a regime of functional co-operation between the E/CAR/CATG and the CMO.

2.2 This will serve to establish a relationship between the E/CAR/CATG and CMO in order to coordinate any regional Aeronautical Meteorology matters. Mr. De Suza will be the CMO Point of Contact (PoC) and E/CAR/CATG Chairman will be the E/CAR PoC.

2.3 It was agreed that information would continue to be exchanged by way of emails and telephone calls, and when necessary teleconferences and formal paper exchange.

Review of the MET issues contained in RPBANIP

2.4 With the assistance of Mr. De Suza the MET activities contained in the Met Matrix of the NAM/CAR Regional Performance based Air Navigation Implementation Plan (RPBANIP) was reviewed and updated.

3. Suggested Action

3.1 The Meeting is invited to:

- a) take note of the information contained in this paper; and
- b) Review the updates provided on MET issues as described in the **Appendix**.

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IMPROVE AVAILABILITY OF METEOROLOGICAL INFORMATION											
TASK DESCRIPTION	Antigua and Barbuda	Anguilla	Barbados	British Virgin Islands	Grenada	Montserrat	St Kitts & Nevis	Saint Lucia	St Vincent	Trinidad and Tobago	
<p>a) Increase facilities to disseminate and exchange aeronautical meteorological information:</p> <p>i) Increase AFTN and Internet facilities to disseminate OPMET data at meteorological offices and stations</p> <p>ii) Increase AFTN communications facilities to relay aircraft special reports from the ATC units to the meteorological offices</p> <p>iii) Maintain and expand the number of workstations used to receive meteorological World Area Forecast System products</p>	<p>1) not applicable CADAS and SPASIA available if necessary</p> <p>2) not applicable</p> <p>3) completed</p>			<p>i) OPMET data disseminated using the Aeronautical Information System Replacement (AISR) (FAA service). Access is via the internet and can be used by all ATS members on any computer using a designated user name and password. BVIAA has three (3) internet providers with automatic switching if one goes down.</p> <p>ii) Aircraft special reports</p>	<p>i) AFTN not available;</p> <p>ii) AFTN not available;</p> <p>iii) Workstation improved</p>	<p>On-going maintenance and upkeep of the meteorological equipment and facilities</p>	<p>i) Completed</p> <p>ii) Completed</p> <p>iii) Completed</p>	<p>System is being acquired</p>		<p>& ii are the responsibility of the TTCAA but have been completed. iii has been Completed.</p>	

				<p>relayed to the BVIAA ATS unit are disseminated via the AISR to the Antigua MET Service as agreed upon in the LOA between these two units.</p> <p>iii) N/A</p>						
<p>b) Increase availability, timeliness, and quality of OPMET data:</p> <p>i) Improve use of METAR and TAF codes/templates to disseminate meteorological reports and aerodrome forecasts</p> <p>ii) Enhance preparation and availability of SIGMET information on hazardous meteorological conditions and volcanic ash clouds</p> <p>iii) Enhance</p>	<p>Mostly completed</p> <p>1) Completed part of QMS</p> <p>2) Not applicable</p> <p>3) Completed</p>			<p>i) Strict adherence to METAR format and codes. TAFs prepared by Antigua MET Services in accordance with a LOA.</p> <p>ii) All airports of the BVIAA lie within the San Juan FIR. SIGMETS should be prepared and made available by San Juan</p>	<p>i) Adequate</p> <p>ii) Not applicable</p> <p>iii) Completed</p>	<p>MOUs with Antigua and Trinidad re the provision of TAF and SIGMET respectively.</p>	<p>i) Completed</p> <p>ii) Not Applicable</p>	<p>Completed</p>		<p>An on-going process</p>

availability of landing forecasts, TREND, considering user requirements				MET Services. iii) Responsibility of Antigua MET (LOA)						
c) Ensure continuous operation of meteorological and communications equipment at meteorological offices and stations through the implementation of lightning, voltage spike, and line protections to prevent damage to automatic meteorological stations	ongoing			UPS on all equipment controls power input (prevents surges). Lightning arrestors on all AWS towers and on the Visual Control Room where the ATS unit operates from.	Partially completed	On-going and seeks advice from CMO and CIMH.	Completed.	Partially implemented. Communications equipment installed with surge protector		Completed
d) Establish contingency procedures to disseminate OPMET data via Internet in case of AFTN or WAFS facilities failure	Completed EDIS Corobor			Contingency procedures established.		On-going	Contingencies established			Completed
e) Improve the quality of data provided by	Valid			SUTRON personnel regularly	Partially completed	MOU with Antigua for provision of TAF	Data is quality checked from our stations to			To be

<p>meteorological sensors used in meteorological reports: Establish data verification and calibration programmes provided by aerodrome meteorological instruments and automated weather systems</p>			<p>conducts data verification and calibration of their AWS sensors and equipment used by the BVIAA MET and ATS units. Local maintenance personnel have also undergone some level of training in maintenance of sensors and equipment</p>			<p>ensure that the sensors are recording accurately</p>			<p>completed in 2016</p>
<p>f) Implement oversight programmes to ensure availability and quality of OPMET data issued by CAR States and Territories and provide assistance if required</p>	<p>Completed Quality Management system in place</p>		<p>Quality Management System in place.</p>	<p>Completed</p>	<p>completed</p>	<p>Completed</p>			<p>TTCAA implementing a Safety Management System (SMS). Proposed requirement that Met have a QMS in place. QMS is in place. Valid at the State level, but Completed at</p>

											the NMS level.
g) Improve States/Territories participation in the International Airways Volcano Watch and provide assistance if necessary	Valid			Not Applicable	Not Applicable	The MVO participates in the International Airways Volcano Watch	Not Applicable				
h) Improve States/Territories participation in the International Tropical Cyclone Watch and provide assistance if necessary	Valid			Not Applicable	Completed	Rely on CIMH and CMO for advice and participation on our behalf.	Completed				On-going
i) Implement Quality Assurance System programmes for aeronautical meteorological service	completed			BVIAA AMPs competency assessment plan established and is being used.	Completed	Hopefully by 31 December 2016 as this is a work- in - progress and we are working with our regulator, ASSI.	St, Kitts have developed a QMS process within our met services				Completed
j) Develop a yearly staffing analysis and training programme on aeronautical meteorological matters for	ongoing			Yearly analysis always done. MET personnel are kept up to date on changes	This is a work in progress	On-going as part of performance /capacity and development programme	On-going				

operational personnel				and/or new requirements and through the competency scheme any failures to meet requirements are corrected using in house remedial training.							
k) Prepare monthly satellite and radar climatological images to detect low frequency cumulonimbus and thunderstorm areas for air traffic flow planning	Not applicable			Not Applicable	Not yet started	Not Applicable	Not Applicable				Valid
l) Increase the number of automated weather systems at aerodromes	Valid New AWOS by 31 December 2016			Sufficient automated weather systems available to meet all requirements. Automated weather systems have also been installed at the aerodromes on Virgin Gorda and	Completed	Completed					

				Anegada. Display of the information from the sensors at these other two aerodromes available in the tower at T B Lettsome Airport.						
m) Implement meteorological data downlinks at MET and ATS units	Not applicable			Not Applicable	Completed	Need to improve access to the relevant systems; eg CADAS or SPATIAL.				Valid
n) Implement meteorological data uplinks for aircraft from automated meteorological stations and MET and ATS units	Not applicable			Not Applicable	Not started	Need to improve access to the relevant systems; eg CADAS or SPATIAL.				
o) Monitor implementation progress	Will be done			Will be done.						Valid