



Agenda Item 5: Air Navigation Matters
5.2 E/CAR Aeronautical Fixed Services (AFS) Network

E/CAR AFS NETWORK

(Presented by the Secretariat)

SUMMARY This working paper provides an overview of the E/CAR AFS Network operation and management since it began operating in 1999, and proposes several actions for the E/CAR AFS Network members through the establishment of the E/CAR Network Technical Group (E/CAR/NTG).	
References: • Final Report of the Thirty-First Eastern Caribbean Working Group Meeting (E/CAR/WG/31) (St. John's, Antigua and Barbuda, 5 to 8 October 2009) • ICAO NACC Letters ND 8-14 – EMX0999 dated 14 October 2009 and ND 8-14 – EMX1049 dated 28 October 2009 • Previous E/CAR/WG and E/CAR/DCA Meeting Reports	
<i>Strategic Objectives</i>	<i>This working paper is related to Strategic Objectives A and D.</i>

1. Introduction

1.1 This working paper presents a summary of the history of the E/CAR AFS Network since it began operating in 1999, and the different actions and agreements made regarding the operation, management and improvements for the network. Under this general overview the principal related conclusions formulated by the different E/CAR/DCA and E/CAR/WG meetings are referenced. For ease of reference, the conclusions mentioned in this working paper are provided in the **Appendix** to this paper.

1.2 Several proposed actions and recommendations are provided in this paper for the future work and activities of the E/CAR Network Technical Group (E/CAR/NTG) for the E/CAR AFS network improvements and a collaborative technical process for the replacement of this network.

2. Background

E/CAR AFS Network operation by IACL

2.1 Under Conclusion 1/1 of the E/CAR/DCA/10 Meeting (Curacao, Netherlands Antilles, December 1993) the restructuring of the E/CAR Aeronautical Fixed Service (AFS) was unanimously endorsed. E/CAR States, in conjunction with the United States, collectively embarked on a restructuring of the AFS via the E/CAR Restructured Digital AFS Network (hereafter referred to as the E/CAR AFS Network) as developed by InterCaribbean Aeronautical Communications LTD (IACL).

2.2 The E/CAR/WG/23 Meeting (French Antilles, May 1999), discussed the final activities for the implementation of the E/CAR AFS Network, including financial, technical and memorandum of understanding issues. Additionally, some concerns were addressed to IACL regarding the management, operation and maintenance of the network; this included issues such as the network's capability to provide a service level compatible with efficient air traffic control requirements; network costs and architecture; the selection of Telecommunications Services of Trinidad and Tobago (TSTT)/Cable & Wireless as the service provider; and IACL's ability to guarantee the proper maintenance of the network as well as the company's internal financial data.

2.3 During the E/CAR/DCA/16 Meeting (Martinique, French Antilles, December 2000), the meeting concluded that the main focus was to have the complete operation of the Network, as soon as possible, in order to maintain a satisfactory level in the provision of air navigation services. The E/CAR/DCA/16 Meeting indicated that IACL required support to deal with the main service provider, Telecommunications Services of Trinidad and Tobago (TSTT); therefore, it was agreed that a meeting with TSTT and its sub-contractors was necessary while a parallel action by IACL to explore possible alternative service providers was to be carried out. In this regard, the Meeting formulated Conclusion 16/12 – *E/CAR AFS Digital Network*.

2.4 The E/CAR/DCA/17 Meeting (Port of Spain, Trinidad and Tobago, December 2001), noted that the E/CAR AFS Network was still not operating satisfactorily despite IACL's efforts to comply with Conclusion 16/12 – *E/CAR AFS Digital Network* which included, inter alia, meetings with the manager of the network, TSTT; carrying out an evaluation to determine the problems not permitting operability, and consideration of alternative Service Providers (Cable & Wireless and SCSI, which was at the time, the MEVA Network service provider). In this regard, the Directors agreed that an ad-hoc Group Meeting was necessary to take a definitive decision before the Meeting was over, and adopted Conclusion 17/4 *Action to be Taken by IACL with Regard to the E/CAR AFS Digital Network*.

2.5 At the E/CAR/DCA/18 Meeting (Port of Spain, Trinidad and Tobago, December 2003), the Directors agreed on the continued dissatisfaction with the operation of the AFS network which resulted in the decision to change service providers from TSTT to Cable & Wireless. The Directors were also presented with information on the status of the project to make this change. They noted that an extensive restructuring programme at Cable & Wireless had delayed the transition for at least three months. IACL provided draft copies of the Contract and Service Level Agreements with Cable and Wireless in electronic format to all of the Directors for their analysis and comments. IACL also agreed on the need to provide more information on the change-over process through Monthly Activities and Progress Reports as well as an Action Plan with appropriate timelines. As a result, the Directors adopted Conclusion 18/13 – *E/CAR Digital AFS Network Action Plan and Monthly Activities and Progress Reports* and approved to hold a Special E/CAR CNS (S-E/CAR CNS) Meeting.

2.6 During the E/CAR/DCA/19 Meeting (Christ Church, Barbados, December 2004), the Directors reviewed the S-E/CAR CNS meeting report and approved several conclusions for the implementation of improvements to the E/CAR AFS Network: Conclusion 19/8 – *Upgrade of the E/CAR AFS Network on Frame relay Management System*; Conclusion 19/9 – *Improving the Interconnection and interoperability of the E/CAR AFS Digital Network with Neighboring Networks* and Conclusion 19/10 – *Study the Feasibility and Update the Strategy Plan of Modernisation of the Voice and Data Circuit Between Port of Spain and San Juan*.

E/CAR AFS Network operated by TTCAA

2.7 During the E/CAR/WG/29 (Saint Vincent and the Grenadines, May 2005), the Meeting was informed that since 1 February 2005, the responsibility of the E/CAR AFS Network had been transferred to the TTCAA/Caribbean Air Navigation and Advisory Services Limited (CANAS), which had taken over the technical activities. After reviewing the status of the E/CAR AFS Network, the meeting formulated conclusions to follow-up and implement improvements to the E/CAR AFS Network: Conclusion 29/6 – *Increase the reliability of the E/CAR Digital Network*, Conclusion 29/5 – *Notification of Network Failures and Feedback Procedures between the French Antilles and Trinidad and Tobago*, and Conclusion 29/7 – *The Need of a Contract with the Provider TSTT*. A fault reporting form and procedure was developed and approved for monitoring the E/CAR AFS Network operations. Due to the discontinuation of the services provided by IACL, it was considered necessary to hold meetings with the selected service provider to discuss and finalise the operational requirements of each State/Territory, in order to facilitate an efficient service to the extent practicable.

2.8 The E/CAR/DCA/20 Meeting (Miami, United States, October 2006) was informed that France had plans to install discrete lines between Trinidad and Guadeloupe and between Trinidad and Martinique to allow the provision of radar data to Piarco ACC. The meeting was also informed of potential solutions for difficulties encountered with AFTN coordination between facilities and problems associated with the voice and data circuits on the Eastern Caribbean AFS Network.

2.9 At a meeting held on 23 November 2006, between the network service provider, TSTT and the TTCAA the following items were discussed:

- a) the Settlement and Release Agreement signed between TSTT and TTCAA on 22 May 2006 amounted to full and final settlement of all claims relating to the IACL Contract up to 31 December 2005. This settlement transferred the ownership of all equipment (A3/A7, AFTN, AFTN interface, Voice) to TTCAA;
- b) TTCAA is responsible for the upgrade/replacement of the AFTN workstations on the Eastern Caribbean States/Territories;
- c) a maintenance agreement between the TTCAA and TSTT for the maintenance of the A3/A7, AFTN interface and voice equipment;
- d) a maintenance agreement between Cable & Wireless and TSTT for the maintenance of the A3/A7 and voice equipment;
- e) a maintenance agreement between Sigma Communications and TSTT for the maintenance of the AFTN interface equipment;
- f) all agreements between TSTT and subcontractors are to be available to the TTCAA for comments prior to final acceptance and signature;

- g) TTCAA will continue to pay for the backup telephone lines;
- h) the maintenance agreements will include financial penalties for down time of circuits. Details are to be mutually agreed upon;
- i) TTCAA will pay for all link charges and equipment upgrades from January 2006; and
- j) the new negotiated agreement should have been for a maximum period of 24 months, in light of new network developments being investigated by the E/CAR CNS Committee.

2.10 During the E/CAR/WG/31 Meeting (St. John's, Antigua and Barbuda, from 5 to 8 October 2009), the CNS Committee reported the following E/CAR AFS Network activities conducted by the TTCAA:

- a) Concerning the deficiency in the reliability of the hardware and software of the AFTN workstations:
 - i. Trinidad and Tobago implemented from 28/01/07 – 26/02/07: Replacement of AFTN hardware, including the provision of printers and uninterruptible power supplies, and AIS software. Technical first level maintenance was conducted by TTCAA with the Cable & Wireless personnel and the local Information Technology/CAA technical staff. AIS operators' training was also conducted on site by a trained AIS officer from the TTCAA.
 - ii. 31/01/07 – 22/02/07: the addition of a Flight Plan Management (FPL) Module to the Trinidad and Tobago AFTN/AMHS switch. This FPL module was added to improve the efficiency of transmission and reception of flight plans and Pre-flight Information Bulletins (PIB) in the region.
 - iii. 13/08/07 – 05/09/07: installation of ICAO format templates to the AIS software. Operator training on the use of the enhanced software was also conducted on site.
 - iv. The TTCAA provides maintenance support for the AFTN by telephone follow-up with on site technical support and/or on-site maintenance as necessary.
- b) Immediate and near term proposed solutions to problems on the AFS network:
 - i. The CNS Committee agreed that the E/CAR sub-region needs an end-to-end solution from a single provider/point-of-contact. This ties responsibility for resolution of failures to a single point of contact, which results in increasing efficiency, reliability and availability of the network. Three options were analysed:

- full VSAT solution;
 - combination VSAT and ground lines network; and
 - full ground line network similar to what currently exists but with pertinent changes.
- ii. Each State was previously requested to provide to the TTCAA via e-mail their user requirements to formulate a Request for Proposal (RFP) for the options presented above. After regional discussion, it was agreed that the best solution would be the replacement of the existing terrestrial based E/CAR network with a VSAT network. In this regard Trinidad and Tobago utilised the information from the contracted survey design report and drafted a Request for Proposal (RFP) to provide a VSAT solution for the Eastern Caribbean. Initially the RFP invited an outright purchase, own and maintain philosophy with Trinidad and Tobago as the System Administrator and owner of the network. This philosophy was revised by TTCAA for economical, logistical and managerial reasons. The requirements were redrafted for a service provider type of network, that is, the successful bidder will own and maintain the hardware and software and provide network and bandwidth management facilities which will be maintained and verified by contractual arrangements.
- iii. TTCAA informed that based on information received regarding bandwidth, satellite airtime and maintenance costs, the requirements are currently being revised to have a partial VSAT network with some terrestrial and microwave links depending on the traffic movements derived from statistics and collaboration with States. This revised document which should be completed by the end of the first quarter of 2010 will be distributed to States for further comments.
- iv. Regarding the immediate problems experienced on the existing AFS voice network due to bandwidth problems between the French Antilles and Trinidad and Tobago, dedicated leased 64 Kbps circuits are being implemented between Martinique/Piarco and Guadeloupe/Piarco separate from the E/CAR Network. When completed, the circuits will transport voice, AFTN and radar data and utilise routers at both ends. The circuit between Martinique and Piarco is operational end-to-end but the routers are not yet installed. This activity is scheduled for mid November 2009.
- v. NET was sub-contracted to maintain the end user multiplexing equipment with effect from 1st July 2009. The Promina multiplexer will be upgraded with new software and some new associated hardware. The upgrade, which started in August 2009, is expected to be completed by mid November 2009. In addition to the multiplexer upgrade, TSTT and TTCAA are discussing the possibility of implementing CISCO routers which would eliminate the Promina equipment. This possible solution is under review with a test procedure being drawn up.
- vi. To ensure this reliability a set of recommended spares for the AFS was purchased and are in the possession of TSTT.

- c) Valid fault reporting and resolution procedures, link failures and proposed solutions (as agreed in E/CAR/WG/29):
 - i. Fault Report Form are generated by States and sent to Trinidad and Tobago AIS fax number as the primary contact,
 - ii. The AIS supervisor has to convey this information to the Trinidad and Tobago on-call technician, who then responds by reporting the problem to TSTT Central Network Management Centre located in Port of Spain, Trinidad and Tobago, and notifying the initiator of acknowledgement of the report,
 - iii. NET will have the ability to remotely dial in and diagnose/repair the fault. If a module change is required, TSTT will either contact the sub-contractor on site (TSTT for Trinidad and Tobago, LIME/C&W for Eastern Caribbean States and Fredrique Hayoue for the French Antilles) or dispatch one of their engineers from Trinidad depending on the fault. The spares are kept in Trinidad and Tobago and can be couriered within one day, as required.
 - iv. A reasonable estimate for acknowledgement of a report by the TTCAA was given as three (3) hours,
 - v. Quarterly statistics and reports of E/CAR AFS failures are compiled and circulated via e-mail by the TTCAA to States based on the reports received.
 - vi. Regarding fault reporting procedures, including operational and technical contacts where applicable, a list of contacts was circulated to States/Territories based on information received from States/Territories. States/Territories are reminded to maintain this list updated.
- d) Status of existing E/CAR AFS network contracts.
 - i. Trinidad and Tobago signed a Labour and Equipment Maintenance Agreement for the existing E/CAR AFS and VHF Aeronautical Mobile Services (AMS) networks, with Telecommunications Services of Trinidad and Tobago (TSTT) for maintenance of the AMS, AFTN interface and voice equipment on the E/CAR islands. The Agreement was deemed to have commenced on 1 January 2006 for an initial period of twenty-four (24) months to be thereafter automatically extended by successive twelve (12) month periods unless terminated.

3. Discussion

3.1 Since the beginning of operation of the E/CAR AFS Network in 1999, the E/CAR/WG and the E/CAR/DCA meetings have been reviewing its performance and status, and concerns have been expressed regarding the network failures, the reporting data and the aspects related with subcontractors of the service.

3.2 Due to the urgent matter related to the existing E/CAR AFS Network service deficiencies, as informed by the E/CAR/WG/31 Meeting, major concern exists over the faulty and degraded services provided by the E/CAR AFS network and the deficiencies in both data and voice circuits. In addition, due to this situation, the ICAO NACC Regional Office sent to E/CAR States and Territories letters, Ref.: ND 8-14 EMX0999 dated 14 October 2009 and ND 8-14 EMX1049 dated 28 October 2009, based on which, the draft E/CAR/WG/31 conclusions related to the Missing Flight Plans and the deficient service provided by the E/CAR AFS Network (31/4, 31/5, 31/6 and 31/7) were considered approved by the E/CAR Directors of Civil Aviation.

3.3. In the letter Ref. EMX1049, the ICAO NACC Regional Office expressed its commitment to provide the E/CAR States/Territories and the E/CAR Network Technical Group (E/CAR/NTG), technical advice and assistance on the implementation of the recommended actions and the improvement to the existing E/CAR AFS Network, and developments towards its future replacement. These recommended actions to be implemented immediately and their results to be presented to the forthcoming E/CAR/DCA/22 Meeting (Port of Spain, Trinidad and Tobago, from 8 to 11 December 2009) are:

- a) That Trinidad and Tobago coordinate the formation of the E/CAR Network Technical Group (E/CAR/NTG) with the participation of all affected E/CAR States and Territories and the ICAO NACC Regional Office by 13 November 2009. Trinidad and Tobago should present the E/CAR/NTG Draft Terms of Reference (ToR) and membership for the approval of the E/CAR/DCA/22 meeting;
- b) That Trinidad and Tobago provide a detailed description of the failures and urgent actions undertaken to recover the existing E/CAR AFS Network, and those improvement actions which are outstanding, to the E/CAR/DCA/22 Meeting;
- c) That Trinidad and Tobago present a preliminary analysis and results of the regional investigation on missing FPLs and RPLs to the E/CAR/DCA/22 Meeting;
- d) That E/CAR States and Territories present their actions to facilitate the transportation of spare parts to avoid delays due to VAT payments or custom formalities to the E/CAR/DCA/22 Meeting; and
- e) That E/CAR States and Territories inform on the availability and capability of their local maintenance team to undertake E/CAR AFS Network first intervention actions to the E/CAR/DCA/22 Meeting.

3.4 Even though the management, operation, and maintenance of the current E/CAR AFS Network is provided by the TTCAA, the adequate use and performance involves all the E/CAR States/Territories users of this network. Therefore, a complete commitment and support by the States and Territories should be given for the activities of the E/CAR/NTG group, which includes:

- the active participation of every State/Territory on the reporting, follow-up and interaction to identify and resolve problems and propose improvement;
- the designation of the appropriate experts to this group and the commitment of necessary resources for them to participate;
- the designation of members with a participant of every E/CAR Network user; and

- the establishment and approval of agreements to permit the operation and work of the E/CAR/NTG and the actions recommended for the E/CAR AFS Network improvement and replacement.

3.5 The main objectives of the E/CAR/NTG group will be the activities related to the replacement of the existing E/CAR AFS Network as per E/CAR/WG Conclusion 31/7, the activities related to the analysis and monitoring of the state of the for current AFS Network and to make recommendations on measures to improve the reliability in the immediate term while a long term solution is sought for the replacement of the network. The E/CAR/NTG should provide technical assistance on the operation and replacement of the network, on which the network decisions should be based, and that will assist the E/CAR DCA through the E/CAR/WG. The E/CAR/NTG should meet as soon as possible, possibly in January 2010, to:

- follow-up on the immediate activities agreed for the recovery of the existing E/CAR Network;
- review the current status of the network (maintenance and reporting procedures, technical personnel involved, spare parts, tools for monitoring the Network Status, identify common network points of failure, etc.);
- review compliance of the network services with ICAO SARPs and users expectations;
- review its Terms of Reference and work programme;
- review and update the last version of the RFP prepared by the CNS Committee;
- schedule the activities for the network replacement process;
- E/CAR/NTG work programme should present their activities in terms of objectives, responsible, deliverables and timelines,
- plan, coordinate and propose further analysis on the missing flight plan issues and other missing data related matters.

3.6 Barbados, French Antilles, Trinidad and Tobago and the United States have already confirmed their intention to be members of the E/CAR/NTG. ICAO has also committed to support the Group.

3.7 For the current E/CAR AFS Network, the States and Territories should sign a formal agreement for the operation of the network in which the responsibilities and rights of each State and Territory are reflected, including the Service provider responsibilities, the ownership of the equipment, the services provided, costs distribution and any other data relevant for the operation, maintenance and development of the Network.

4. Suggested actions

4.1 The Meeting is invited to:

- a) take note of the E/CAR AFS Network issues since it became operational in 1999 as detailed in section 2;
- b) review the considerations expressed in paragraph 2.9 regarding the TTCAA and TSTT responsibilities for the E/CAR Network;
- c) evaluate the latest E/CAR Network improvements as explained in paragraph 2.10;

- d) considering the information provided under paragraphs 3.1 to 3.3, review and agree on:
- i. the establishment of the E/CAR/NTG and assign the terms of reference;
 - ii. E/CAR/NTG reports to every E/CAR/WG and E/CAR/DCA meeting, and provides a quarterly progress report to E/CAR Directors through the ICAO NACC Regional Office;
 - iii. consider and inform of the immediate actions mentioned in paragraph 3.3;
 - iv. E/CAR States and Territories users of the E/CAR AFS Network proceed with the commitment to activities expressed in paragraph 3.4;
 - v. the E/CAR/NTG meet, as soon as possible, to cover the topics mentioned in paragraph 3.5, the Meeting should decide upon the venue and date for the first E/CAR/NTG Meeting; and
 - vi. the signature of an agreement for the current E/CAR Network as expressed in paragraph 3.7.
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APPENDIX

RELEVANT E/CAR/DCA & E/CAR/WG CONCLUSIONS

E/CAR/DCA/10

CONCLUSION 1/1

**AGREEMENT IN PRINCIPLE TO THE RECOMMENDATIONS
ON RESTRUCTURING THE AFS NETWORK IN THE E/CAR
AREA**

That the DCAs of the E/CAR agree in principle to the recommendations on restructuring the AFS network, unanimously endorsed by the E/CAR Working Group (as contained in Appendix A to the Report of its 17th Meeting (Montserrat, 1993)). That agreement in principle is predicated on the understanding that due to financial and/or administrative factors some aspects of the recommendations might be subject to change.

E/CAR/DCA/16

CONCLUSION 16/12

E/CAR AFS DIGITAL NETWORK

The States/Territories of the Eastern Caribbean, in an effort to bring the E/CAR AFS Digital Network to full operability, agree that:

- a) IACL, in co-ordination with the DCA of Trinidad and Tobago, by the end of January 2001, seek an audience with the Government at the highest possible level in order to alert the Government to the safety consequences involved with the malfunctioning of the E/CAR AFS Digital Network;
- b) IACL schedule a meeting with TSTT and its sub-contractors to include Directors of Civil Aviation of the Eastern Caribbean and other interested parties, by the end of January 2001;
- c) IACL conduct a thorough technical evaluation of the E/CAR AFS Digital Network to determine the exact problems that are not permitting operability of the new digital Network and propose solutions;
- d) IACL conduct a thorough technical evaluation of the existing AFS Network to determine elements of the Network, particularly the voice circuits, which may still be utilized and revert to the use of the existing AFS Network, if appropriate; and
- e) IACL initiate parallel action to explore service provider alternatives and provide results of the search to the Directors of Civil Aviation by 15 March 2001.

E/CAR/DCA/17
CONCLUSION 17/4

**ACTION TO BE TAKEN BY IACL WITH REGARD TO THE
E/CAR AFS DIGITAL NETWORK**

That, IACL:

- a) obtain by 15 January 2002 complete proposals from Cable & Wireless and the Central Caribbean MEVA/2 AFS Network service provider, SCSi, for the operation, maintenance and installation (in the case of SCSi) of an Eastern Caribbean AFS Digital Network including;
 - 1. technical response to required specifications;
 - 2. information on the company's competence as it related to technical experience and personnel;
 - 3. implementation time-line programme;
 - 4. cost of implementation and maintenance;
- b) present the proposals and their evaluation at a Meeting of the Directors of Civil Aviation of the Eastern Caribbean to be held in Martinique prior to the end of January 2002, with the participation of both Cable & Wireless and SCSi; and
- c) ensure continued operation of the existing AFS Network until a final selection is reached.

E/CAR/DCA/18
CONCLUSION 18/13

**E/CAR DIGITAL AFS NETWORK ACTION PLAN AND
MONTHLY ACTIVITIES AND PROGRESS REPORTS**

That IACL provide by 17 December 2003, to each E/CAR Director of Civil Aviation an Action Plan, with appropriate timelines, on the process for the change over of the management of the E/CAR Digital AFS Network from TSTT to Cable and Wireless and thereafter Monthly Activities and Progress Reports.

E/CAR/DCA/19
CONCLUSION 19/8

**UPGRADE OF THE E/CAR AFS NETWORK ON FRAME RELAY
MANAGEMENT SYSTEM**

That, IACL,

- a) be urged to provide the E/CAR AFS Network on Frame Relay Management System platform before the end of December 2005; and
- b) following the conclusion 17/13 of the 17th E/CA DCA Meeting provide to the DCAs, as soon as possible, a report on the status of the implementation of the digital network, as well as an updated Project Plan related to this subject.

E/CAR/DCA/19
CONCLUSION 19/9

**IMPROVING THE INTERCONNECTION AND
 INTEROPERABILITY OF THE E/CAR AFS DIGITAL
 NETWORK WITH NEIGHBOURING NETWORKS**

That, in order to fully meet the current AFS requirements and future new communication services providing interconnection/interoperability of the E/CAR AFS digital network with neighbouring networks:

- a) Trinidad and Tobago be urged to implement a REDDIG VSAT node at Piarco ACC before the end of March 2005;
- b) Trinidad and Tobago, United States and IACL study the feasibility to implement an additional interconnection/ interoperability point of the E/CAR Digital Network with other neighbouring networks;
- c) as mentioned in paragraph b) above, a meeting is proposed to be held in San Juan, Puerto Rico before the end of January 2005, reporting the results to the next E/CAR WG Meeting; and
- d) in order to meet the study mentioned in the paragraph b) above, take into account the,
 - 1) updated AFS requirements contained in Tables CNS1A and CNS1C of the FASID that are shown as Appendices A and B to this part of the report;
 - 2) infrastructure and the available logistical support in the proposed interconnection site; and
 - 3) “Guidance material to initiate the analysis of digital network interconnection in the CAR/SAM Regions” recommended by Conclusion 10/27 of the GREPECAS.

E/CAR/WG/29
CONCLUSION 29/5

**NOTIFICATION OF NETWORK FAILURES AND FEEDBACK
 PROCEDURES BETWEEN THE FRENCH ANTILLES AND
 TRINIDAD AND TOBAGO**

That TTCAA,

- a) establish a contact procedure in case of network failure;
- b) acknowledge receipt of the failure notice;
- c) notify the end of a failure;
- d) take note of the French Antilles contact points; and
- e) propose a common E/CAR reporting feedback method to be adopted by all the ATC units of the region.

E/CAR/WG/29

CONCLUSION 29/6

INCREASE THE RELIABILITY OF THE E/CAR DIGITAL NETWORK

That the E/CAR States/Territories establish an urgent action plan to increase the reliability of the E/CAR Digital Network to attain a higher level of safety of the air navigation operations.

E/CAR/WG/29

CONCLUSION 29/7

THE NEED OF A CONTRACT WITH THE PROVIDER TSTT

That,

- a) in light of the serious concerns of the E/CAR States, the DGCA of TTCAA should be urged to take the necessary action so that an interim contract could be concluded with TSTT as soon as possible, until the matter of a more permanent service provider be resolved;
- b) the TTCAA request, as a matter of urgency from TSTT information on circuit documentation, spares, number of trained personnel and quarterly reports on the status of the AFS network inclusive of statistical failures;
- c) the TTCAA supports continued regular teleconferences with the users of the AFS network; and
- d) TTCAA provide clarification, as a matter of urgency, on the future development of the AFS network.

E/CAR/WG/31

CONCLUSION 31/4

URGENT ACTIONS TO MITIGATE NUMBER OF MISSING FLIGHT PLANS IN ATS UNITS OF THE EASTERN CARIBBEAN.

That

- a) the E/CAR States and Territories:
 - i) conduct an evaluation of their flight plan processing system in an internal investigation by all local AIS units to verify that all repetitive flight plans (RPL) and flight plans (FPL) are correctly disseminated;
 - ii) review the RPL system used in their ATS units;
 - iii) analyze and assess the loss of AFTN messages between E/CAR ATS units;
 - iv) undertake a regional investigation on missing FPLs between **1 to 30 November 2009**, utilizing the guidelines and form provided in Appendix E of the Report; and

- v) submit to the ICAO NACC Regional Office the results obtained from the above-mentioned actions by **15 December 2009**.
- b) the ICAO NACC Regional Office propose other remedial actions to ensure proper coordination of flight plan data between ATS units, and follow-up on the actions listed in item a), and assist States and Territories of the Eastern Caribbean, as required.

*E/CAR/WG/31***CONCLUSION 31/5****URGENT ACTIONS TO IMPROVE E/CAR AFS NETWORK OPERATIONAL PERFORMANCE**

Due to the current poor performance and unreliability of the E/CAR AFS Network service, and its inadequate management, which may have an impact on ATS safety, the E/CAR States and Territories urge Trinidad and Tobago Civil Aviation Authority (TTCAA) to:

- a) provide feedback by **16 October 2009** on all failure reports submitted in the E/CAR region. This feedback shall include:
 - the identified causes
 - the corrective actions undertaken
 - the foreseen planning
- b) consider changing the current service provider managing the network.

*E/CAR/WG/31***CONCLUSION 31/6****E/CAR AFS NETWORK IMMEDIATE RECOVERY ACTIONS**

In order to ensure normal operations of the E/CAR AFS Network and due to the frequent and continuous failures in voice and data communications, the following immediate actions are required:

- a) that TTCAA immediately send the corresponding technical personnel and adequate spare parts to unserviceable sites to restore the network (including Barbados and Guadeloupe) by **16 November 2009**;
- b) each E/CAR Network member State shall facilitate the transportation of spare parts of the system, to avoid delays due to VAT payments or customs formalities;
- c) under TTCAA management, adequate spare parts shall be available on sites,
- d) that TTCAA study the possibility for first intervention actions to be performed by local maintenance teams; and
- d) progress on these actions is to be reported by TTCAA to E/CAR Network members and ICAO by **23 November 2009**.

E/CAR/WG/31

CONCLUSION 31/7

REPLACEMENT OF THE E/CAR AFS NETWORK

Due to the current condition and performance of the E/CAR AFS Network with its maintenance difficulties (equipment, spare parts, logistics) and the need of a telecommunication network capable of supporting the future Air Navigation services and systems (AIDC, AMHS, Surveillance data sharing, etc), that:

- a) an E/CAR Network Technical Group (E/CAR/NTG) be formed to study, analyze and follow-up on the planning, documentation and implementation of the replacement of the E/CAR AFS Network;
- b) TTCAA conduct the replacement process of the E/CAR Network, assisted by the E/CAR/NTG and the ICAO NACC Regional Office; and
- c) the new AFS Network should be a VSAT solution operational **by mid 2011**.

— END —