



---

**Agenda Item 4: Specific Air Navigation Activities and Developments**  
**4.5 Communications, Navigation and Surveillance (CNS)**

**CNS – HF COMMUNICATION (PIARCO FIR)**

(Presented by Trinidad and Tobago)

**SUMMARY**

This information paper advises the E/CAR WG of the progress thus far by Trinidad and Tobago with regards to the resolution of identified deficiency in communication using HF/SSB within the Piarco FIR/UIR.

**References:**

- Summary of Discussions and Conclusion 29<sup>th</sup> Eastern Caribbean Working Group Meeting, Saint Vincent, 2005.
- Summary of Discussions and Conclusion 28<sup>th</sup> Eastern Caribbean Working Group Meeting, Montserrat, 2004.
- Summary of Discussions and Conclusion 27<sup>th</sup> Eastern Caribbean Working Group Meeting, Antigua, 2003.
- Summary of Discussions and Conclusion 26<sup>th</sup> Eastern Caribbean Working Group Meeting, Barbados, 2002.

**1. Introduction**

1.1 The following is reiterated for the benefit of the Meeting.

1.2 Trinidad and Tobago procured through ICAO Procurement Section in Montreal one redundant HF AMS system with SELCAL to meet the responsibilities of the Piarco FIR/UIR for HF Communications from Thales Systems Canada (TSC) on September 30, 2002.

**2. Discussion**

2.1 The complete system was to have been delivered and commissioned in eighteen (18) months with a then projected date in the first quarter of 2004.

2.2 Deficiencies relating to the tendered technical specifications were identified during the Factory Acceptance Tests (FAT) in February 2004. The deficiencies were rectified and a successful Supplementary FAT was held in October 2004.

2.3 The equipment was then shipped to Trinidad and installed. After considerable discussions and unexpected delays, the Site Acceptance Tests (SAT) were conducted in May 2005 with two noted

deficiencies, namely the proximity of a metal perimeter fence at the transmitter site and inconsistencies with the reception at Piarco.

2.4 The TTCAA subsequently advised ICAO that the equipment will not be accepted until the reception deficiency was rectified. TSC then switched off the equipment and denied the TTCAA access to the transmitter site until the matter was resolved.

2.5 The perimeter fence at the transmitting site was removed in September 2005 and replaced in January 2006 with a non conductive wooden fence.

2.6 After discussions and negotiations between ICAO and TSC, TSC returned to Trinidad in September 2005 to conduct tests to verify the cause of the reception problem. Some defective components of the system were replaced and the equipment was realigned. A refresher Operator training course was conducted and the equipment was switched back on and turned over to ATC use.

2.7 In October 2005 a Supplementary SAT was conducted and the TTCAA signed the SAT certificate and accepted the equipment. The TTCAA was advised to record the performance of the HF AMS and forward these records to ICAO for analysis.

2.8 The Thales HF AMS is at present being used by Piarco ATC with some level of success as reflected by the performance records. There have been many instances of satisfactory two way communication between Piarco ATC and aircraft within the Piarco FIR/UIR.

2.9 However, there are still some shortcomings with aircrafts at various flight levels within the Piarco FIR. TSC, ICAO and the TTCAA are working on a resolution for the problems still being experienced by Piarco ATC with reception of aircraft.

2.10 An ICAO HF AMS expert was contracted to investigate these shortcomings over the period April 26-28, 2006. Based on the analysis and report of the findings, ICAO, TSC and TTCAA will hold discussions to resolving the reception matter.

### **3. Conclusion**

3.1 While the Trinidad and Tobago Civil Aviation Authority reaffirms its commitment to the users and bordering FIRs, to the provision of a satisfactory service, we are also mandated to provide a service that meets all the technical requirements and can provide the range of functionalities as per ICAO Annex 10 specifications.

3.2 Until the HF AMS matter is fully resolved to satisfaction, there will continue to exist with New York Aeronautical Radio Inc. Communications Centre (ARINC), an arrangement for the supplementary relay and delivery of ATC clearances. AIP NOTAM Summary Series A – A0248 dated March 30, 2005 refers.

### **4. Suggested action**

4.1 The Meeting is invited to take note of the information presented in this information paper.