

GRENADA ATM/CNS TRANSITION PLAN

1. INTRODUCTION

- 1.1 Grenada has recognised the limited scope of the existing Air Navigation/ATS Systems and has endorsed the transition towards the ICAO ATM/CNS Concept.

Grenada recognised that regional coordination and planning is necessary for the implementation of that concept and is willing to support whatever recommendations are made by IACL/DCA OECS towards that transition.

2. AREA OF RESPONSIBILITY

- 2.1 The scope of Grenada ATM/CNS transition plan will cover the present airspace delegated to Grenada and the proposed expansion to that Airspace.

3. CURRENT SITUATION/SHORTCOMINGS

3.1 COMMUNICATION

3.1.1 CONTROLLER- PILOT

Communication within Point Salines Airspace is achieved through the use of VHF Air to Ground Radio.

- 3.1.2 Limitation- system is subject to propagation problems due to surrounding terrain.

3.1.3 CONTROLLER- CONTROLLER

- (a) AFTN Land Line
- (b) System Limitation -Inadequate availability and reliability

3.2 NAVIGATION

- 3.2.1 An NDB and VDR/DME support the ATS Routes structures within the Point Salines CTR and in conjunction with PAPI support the approach to Point Salines International Airport.

3.3 SURVEILLANCE

- 3.3.1 Surveillance is achieved by voice position reports.

3.3.2 Limitations - Position accuracy is not optimal.

3.4 **AIR TRAFFIC MANAGEMENT**

3.4.1 Systems in use -ICAO standards and recommended practices (SARPS) are used in conjunction with available equipment.

3.4.2 The current Air Traffic Management suffers from dissimilar ATS procedures, language difficulties and unreliable communication facilities.

4. **FUTURE ATM/CNS SYSTEMS**

4.1 Grenada accepts in principle and supports the ICAO ATM/CNS concept.

4.2 **COMMUNICATION**

4.2.1 (i) **SHORT TERM**

- Continued use of VHF Air to Ground. Improved AFS.

(ii) **MEDIUM TERM**

- Continued use of VHF Air to Ground. (See conclusion -page 3)

(iii) **LONG TERM**

- Continued use of VHF Air to Ground.
- Implementation of VHF Data Link.
- Implementation of ATN.

4.3 **NAVIGATION**

4.3.1 (i) **SHORT TERM**

- Continued use of NDB, VOR/DME.
- Continued use of PAPI.
- Begin GNSS development trials and demonstrations.

(ii) **MEDIUM TERM**

- Continued use of NDB, VOR/DME.

- Continued use of PAPI.
- Development of trials of GNSS.

(iii) **LONG TERM**

- Withdrawal of NDB, VOR/DME
- Progressive implementation of GNSS
- Continued use of Barometric altimetry
- Implementation of GNSS altitude

4.4 **SURVEILLANCE**

4.4.1 (i) **SHORT TERM**

- Continued use of Voice Position reports.

(ii) **MEDIUM TERM**

- Continued use of Voice Position reports.

(iii) **LONG TERM**

- Continued use of Voice Position reports.

4.5 **AIR TRAFFIC MANAGEMENT**

4.5.1 **Short Term**

Windshear Detection
 Evaluation of Current ATM Capacity
 Dissemination of Information ATM/CNS Concepts
 Instruction and Training
 Dissemination of Human Aspects of ATM/CNS

4.5.2 **Medium Term**

Windshear Detection
 Evaluation of Current ATM Capacity
 Dissemination of Information ATM/CNS Concepts
 Continued Instruction and Training
 Dissemination of Human Aspects of ATM/CNS

4.5.3 **Long Term**

- Windshear Detection
- Evaluation of Current ATM Capacity
- Dissemination of Information ATM/CNS Concepts
- Continuation of Instruction and Training
- Dissemination of Human Aspects of ATM/CNS
- Air/Ground Data Link Applications

Commensurate with the development in CNS and plan for progressive automation combined with improved planning will allow for more dynamic airspace and air traffic management in the Point Salines CTR.

5 **CONCLUSION**

There will probably be a requirement for data link in the long term. In the short and medium term the AFTN will have to be upgraded to X.25 protocol. The upgrading of the AFTN as well as the transition on ATN will depend on the plans of IACL.

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