

ST. KITTS ATM/CNS TRANSITION PLAN

1.0 INTRODUCTION

- 1.1 St. Kitts has recognised the increasing limitations of its present Air Navigation/ATM Systems and the improvements needed to take Civil Aviation into the 21st century. The limitations of its present system are intrinsic to the system itself and the problems cannot be over unless it embarks on the concept of the new Communication, Navigation and Surveillance (CNS) Systems to support further enhancements in Air Traffic Management (ATM).

St. Kitts recognised that regional coordination and planning is required for the implementation of that concept and is willing to support recommendations made pertaining to the ATM/CNS Transition.

- 1.2 The scope of St. Kitts ATM/CNS Transition Plan will cover the present Airspace delegated to St. Kitts.

2.0 BACKGROUND

- 2.1 The Fourth GREPECAS Meeting held in Panama City (September 20-26, 1994) approved the Draft CAR/SAM Transition Plan prepared by the ATM/CNS Sub-group by means of conclusion 4/38. Conclusion 4/37 relating to the preparation of national plans for the transition to the new ATM/CNS System, taking into account the established guidelines in the CAR/SAM ATM/CNS Regional Plan. It was noted that Regional Plans must allow for easy coordination within the region and with adjacent regions.

3.0 CURRENT SITUATION/SHORTCOMINGS

3.1 COMMUNICATIONS

3.1.1 Controller - Pilot

- (a) System in use: VHF Voice.
- (b) System limitations: System is subject to propagation problems due to surrounding terrain.

3.1.2 Controller - Controller

- (a) System in use; AFTN landline.

- (b) System limitations: Inadequate availability and reliability.

3.2 NAVIGATION

- 3.2.1 System in use: An NDB and DME support the ICAO ATS route structure within the St. Kitts CTR and in conjunction with PAPI for purpose of approaches.
- 3.2.2 Systems limitations: Nav aids range is limited due to surrounding terrain.

3.3 SURVEILLANCE

- 3.3.1 System in use: Voice position reports.
- 3.3.2 System limitations: Position report accuracy is not optimal.

3.4 AIR TRAFFIC MANAGEMENT

- 3.4.1 System in use: ICAO Standards and recommended practices (SARPS) are used in conjunction with available equipment-
- 3.4.2 System limitations:
 - (a) Lack of radar coverage.
 - (b) Airspace configuration.
 - (c) Dissimilar ATC procedures.
 - (d) Unreliable communication facilities and language difficulties.
 - (e) Uncoordinated provision and implementation of present CNS equipment.

4.0 FUTURE ATM/CNS SYSTEMS

- 4.1 St. Kitts accepts in principle and supports the ICAO CNS/ ATM 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.
 - Progressive implementation of ATN.
- (iii) Long Term
 - Continued use of air to ground.
 - Implementation of VHF Data link.
 - Implementation of ATN.

4.3 NAVIGATION

- 4.3.1 (i) Short Term
- Continued use of NDB DME
 - Implementation of PAPI
 - Begin GNSS development, trials and demonstrations.
- (ii) Medium Term
- Continued use of NDB DME
 - Continued use of PAPI
 - Development of trials of GNSS.
- (iii) Long Term
- Withdrawal of NDB DME
 - Progressive implementation of GNSS
 - Continued use of Barometric altimetry
 - Implementation of GNSS Navigation.
 - Continued use of PAPI

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 MANGEMENT

4.5.1 **Short Term**

Instruction and Training
Dissemination of Information ATM/CNS Concepts
Dissemination of Human Aspects of ATM/CNS

4.5.2 **Medium Term**

Continued Instruction and Training
Dissemination of Information ATM/CNS Concepts
Dissemination of Human Aspects of ATM/CNS

4.5.3 **Long Term**

Continued Instruction and Training
Dissemination of Information ATM/CNS Concepts
Dissemination of Human Aspects of ATM/CNS

Commensurate with the development in CNS and plan for progressive automation will allow for more dynamic airspace and improved planning in air traffic management in the R. L. Bradshaw CTR.

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