

BARBADOS (ADAMS TMA) ATM/CNS IMPLEMENTATION

BARBADOS ATM/CNS TRANSITION PLAN

1. BACKGROUND

1.1 Barbados is very aware of the ever-increasing limitations of the present air navigation system and the improvements needed for civil aviation in the 21st century. These limitations cannot be overcome unless Barbados implements the new ICAO concept for communications, navigation and surveillance (CNS) systems to support the enhancement of air traffic management (ATM). Implementation of the CNS concept requires regional coordination and planning and every effort is being made to ensure that this plan is coordinated with the regional plan.

2. INTRODUCTION

2.1 The Draft CAR/SAM ATM/CNS Transition Plan prepared by the ATM/CNS Sub-group was approved at the fourth GREPECAS Meeting which, was held in Panama City from 20 -26 September 1994. That meeting also, in conclusion 4/42, required States to prepare national plans for the transition to the new ATM/CNS system, considering the general guidelines established in the Draft ATM/CNS Regional Plan. This Regional Plan must permit easy coordination within the region and also with adjacent Regions.

3. SCOPE

3.1 The Scope of the ATM/CNS Transition Plan for Barbados includes the airspace under the jurisdiction of Barbados.

3.2 The terms below will have the following meanings for the purposes of this plan.

Short Term	2001 to 2005
Medium Term	2006 to 2010
Long Term	2011 to 2015 and beyond.

4. CURRENT SITUATION/SHORT COMINGS

4.1 Communication

Air/ground Communication in Barbados' airspace is effected through VHF propagation.

4.2 Navigation

An NDB and a VOR/DME are utilised for navigation in the Terminal Control Area.

ILS and VOR/DME are used at Grantley Adams International Airport for approaches.

RNAV GPS Approaches are used as a secondary means.

4.3 Surveillance

Surveillance is achieved through Monopulse Secondary Surveillance Radar located one mile north of the airport.

5. Future ATM/CNS Systems

Barbados recognises that the ICAO ATM/CNS concept is being implemented globally and therefore accepts this concept.

A complete analysis of the present system has informed the following proposals for migration to ATM/CNS.

Communication

Short Term

1. Retain use of VHF Voice Communications
2. Implementation of improved AFS
3. Implementation of AIDC (ATS Inter-facility Data Communications)
4. Implementation of ATIS

Medium Term

1. Retain use of VHF Voice Communications
2. Implement ATN
3. Implement AIDC
4. Implement VHF Data Link
5. Continued use of ATIS

Long Term

1. Continued use of VHF Voice Communications
2. AMSS Data Voice
3. Continued use of ATIS

Navigation

Short Term

1. Continue to utilise FMS/FMCS Procedures
2. Continue to use NDB
3. Continue to use VOR/DME
4. Continue to use ILS
5. Continued use of GNSS Navigation Approaches

Medium Term

1. Continued use of FMS/FMCS Procedures
2. Continued use of NDB
3. Continued use of VOR/DME
4. Continued use of GNSS Navigation
5. Continued use of ILS

Long Term

1. Withdrawal of NDB
2. Continued use of FMS/FMCS Procedures
3. Withdrawal of VOR/DME
4. Continued use of GNSS Navigation
5. Continued use of ILS

Surveillance

Short Term

1. Mandatory carriage of transponder
2. Implementation of ADS to be determined
3. Minimum Safe Altitude Warning
4. Continued use of MSSR Mode C

Medium Term

1. Implementation of ADS to be determined
2. Continued use of MSSR Mode C
3. Upgrade of MSSR Mode C to Mode S

Long Term

1. Implementation of ADS to be determined
2. Continued use MSSR Mode S

Air Traffic Management

Short Term

1. Evaluation of current ATM Capacity
2. Dissemination of information on ATM/CNS Concepts
3. Continued instruction and training on ATM/CNS
4. Air Ground Data Link
5. Dissemination of human aspects of ATM/CNS

Medium Term

1. Wind shear Detection
2. Dissemination of information on ATM/CNS Concepts
3. Dissemination of human Aspects of ATM/CNS
4. Continued instruction and training on ATM/CNS
5. Application of ADS to be determined

Long Term

1. Wind shear Detection
2. Dissemination of information on ATM/CNS Concepts
3. Dissemination of human Aspects of ATM/CNS
4. Continued instruction and training on ATM/CNS
5. Application of ADS to be determined

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