

GUYANA
ACTION PLAN FOR THE IMPROVEMENT OF COMMUNICATIONS, NAVIGATION AND SURVEILLANCE SYSTEMS TO MEET SHORT- AND MEDIUM-TERM OPERATIONAL REQUIREMENTS FOR EN ROUTE AND TERMINAL AREA OPERATIONS

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1. **Objective**

1.1 This action plan describes the actions to take for the improvement of CNS systems, with the aim of supporting short- and medium-term en route and terminal area operations, within the framework of the Air Navigation Global Plan.

1.2 To comply with this objective, an analysis and diagnosis has been made of the CNS systems currently supporting short- and medium-term en route and terminal area operational requirements.

1.3 Taking into account the status of operation of the CNS systems supporting short- and medium-term en route and terminal area operational requirements, as well as the new regional CNS systems implementation plans approved by GREPECAS, following are the action plans for the improvement of CNS systems in support of en route and terminal area operations.

2. **Scope**

2.1 This document takes into consideration the action plans for short- and medium-term implementation, respectively, up to 2010 and between 2011 and 2015, as indicated in the guidelines contained in the Air Navigation Global Plan.

3. **Analysis and diagnosis of the current CNS situation**

3.1 **Communications**

3.1.1 **Aeronautical Fixed Service**

Conventional services

3.1.1.1 Guyana does not count with an AFTN switch. The system implemented is currently on the REDDIG platform and has two direct ports connected to Manaus; the other being Maiquetia, however simultaneous connection is not being accomplished at the moment. The system was installed in 2003.

3.1.1.2 Guyana does not have a central PBX system which encompasses commercial telephone lines, however, the office and ATS facilities intercom system is on a PBX system. The VHF frequency selection systems (VCS), is a digital system with two controller working positions in the Tower and ACC, configured for switching between main and standby transmitters and receivers, directly linked to the ATS recorder, all channels are being recorded with capability of displaying weather information and time along with direct inter-facility communication.. the system was installed in 1997..

Services under the ICAO CNS/ATM concept

3.1.1.3 Guyana does not have ATN applications implemented.

3.1.2 **Aeronautical Mobile Service**

Conventional services

3.1.2.1 Cheddi Jagan International Airport – Timehri

ACC –	128.6MHz 063004N581519W coverage satisfactory except for the southern most boundary.(supplemented by HF) Installed 1982
EMG	121.5Mhz 063004N581519W Coverage satisfactory. Installed 1982
FIC	124.2Mhz 063004N581519W Coverage inadequate, moreso in the lower airspace, supplemented by HF. Installed 2002
	6730.5khz 063004N581519W Satisfactory coverage. Used by domestic operators
	8855Khz 063004N581519W Satisfactory coverage. Used for international operations
Timehri Approach –	119.4Mhz 063004N581519W - coverage satisfactory within defined airspace. Installed 1982
TWR –	118.3Mhz 063004N581519W – coverage satisfactory within defined airspace. Installed 1982
GND –	121.7 Mhz 063004N581519W – coverage satisfactory Installed 1982
EMG	121,5Mhz 063004N581519W Coverage satisfactory. Installed 1982

Ogle International Airport

TWR	118.55Mhz 064826.679N0580620.26W Coverage satisfactory within defined airspace. Installed
GND	121.9Mhz 064826.679N0580620.26W Coverage satisfactory within defined airspace. Installed

Services under the ICAO CNS/ATM concept

3.1.2.2 CPDLC, VDL, HFDL and VDL.not implemented

3.1.3 **Radiobroadcasting service**

3.1.3.1 ATIS, D-ATIS, VOLMET not implemented

3.1.4 **National communications network for the transport of air navigation services**

3.1.4.1 Under this section, States will describe the domestic network's configuration, whether it is owned by the aeronautical administration, or leased.

3.2 **Navigation Service**

Conventional services

Cheddi Jagan International Airport – Timehri

TIM VOR 062932.137N0581527.540W
250NM coverage/45000ft
Installed 2002

Services under the ICAO CNS/ATM concept

- 3.2.1 GBAS systems not installed.
Use of GPS for IFR navigation

3.3 **Surveillance Service**

Conventional services

No surveillance systems installed

Services under the ICAO CNS/ATM concept

- 3.3.1 ADS-C systems, multilateration or ADS-B. not implemented

4. **GREPECAS-approved regional plans and guidelines in the implementation of new ICAO CNS systems**

5. **Improvements in the Communications, Navigation and Surveillance systems**

5.1 **Background**

- 5.1.1.1 Plans for the improvements in the services are indicated hereunder. In this respect, Guyana estimates the following dates for their implementation.

5.2 **Communications**

5.2.1 **Aeronautical Fixed Service**

5.2.1.1 *Conventional services*

Short Term

The procurment of the AMHS/AFTN Gateway Type II system will have the capability of ATN applications, AIDC and OLDI. It will be configured for interconnectivity to the ATM system for display of flight data and automatic strip printing.

5.2.1.2 *Services under the ICAO CNS/ATM concept*

Installation of the AMHS system

Medium term

Connectivity with Suriname and Timehri Met office.

Long Term

Connections with other airports

Aeronautical Mobile Service

5.2.1.3 *Conventional services*

The VCS inclusive of VHF transmitters and receivers will be replaced. PBX for inter facility communications and CO lines. It will allow for the switching of all voice communications in ATC

5.2.1.4 *Services under the ICAO CNS/ATM concept*

Short term

Cheddi Jagan International Airport

Installation of new VCCS with VHF transmitters and receivers

Ogle International Airport

Installation of VCS with new VHF transmitters and receivers

Medium Term

Installation of OLDI for national system

Installation of ATIS – Cheddi Jagan International Airport

Long Term

Installation of OLDI – international

Installation of repeater stations for VHF coverage in the lower airspace

5.3 **Navigation**

5.3.1 *Conventional services*

Procurement of DME to be co-located with the VOR, ILS/DME
Installation of DME.

5.3.2 *Services under the ICAO CNS/ATM concept*

Short Term

Installation of ILS/DME

Medium term

Installation of VOR to be used as secondary en-route aid.

Optimise use of GNSS

Long term

Procure and install GBAS

5.4 **Surveillance**

5.4.1 *Conventional services*

Seek necessary information for RADAR data sharing.

5.4.2 *Services under the ICAO CNS/ATM concept*

Medium Term

Installation of ADS-B

Long Term

Make necessary arrangement for RADAR data sharing

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