



International Civil Aviation Organization

Fifth Meeting of the ATFM Task Force (ATFM/TF/5)

(Armenia, Colombia, 8 to 12 June 2009)

ATFM/TF/5 WP/19

03/06/09

- Agenda Item2 :** **Review of ATFM strategy and planning in the CAR/SAM Regions**
 2.4 ATFM and severe weather conditions (Volcanic Ash, Hurricane events, etc.)

HURRICANE HUNTERS OPERATION PROCEDURES

(Presented by the Secretariat)

SUMMARY

This Working Paper presents a operation procedures coordination proposal of hurricane hunters in the CAR/SAM Regions.

REFERENCES

Report of the GREPECAS/15 Meeting.

1. Background

1.1 GREPECAS/15 noted that hurricane hunters operations are conducted throughout several FIRs of the CAR/SAM Regions, and therefore, they require a regional coordination between air navigation services providers. To this end, the Secretariat was requested to analyse the applicable procedures among the involved Caribbean FIRs.

1.2 In view that hurricane hunters operations are mainly carried out in the Caribbean, the Gulf of Mexico, Central and Eastern Pacific and Western Atlantic, it is expected to improve this coordination with the ATS providers of the involved States/Territories of North America, Central America, the Caribbean and South America.

1.3 Hurricane hunters cannot fly at low altitudes due to the operational requirements; the update of their procedures for continuous operations carried out under Instrument Flight Rules (IFR) conditions is being proposed.

1.4 The **Appendix** to this working paper presents a proposal of procedures for the operations of the hurricane hunters to support operations of aircraft with “Teal” or “NOAA” identification call. These operations currently keep a continuous coordination with the Federal Aviation Administration (FAA), the National Oceanographic and Atmospheric Administration (NOAA), and United States Air Force.

1.5 The Meeting should analyse the proposal to improve the coordination of these procedures in the CAR/SAM FIRs.

2 Suggested action

2.1 The Meeting is invited to analyse the procedures of hurricane hunters for their homogeneous application in the CAR/ SAM Regions, as required.

APPENDIX

Hurricane Hunters (TEAL & NOAA) - Flight Operations

Introduction

The information provided by these aircraft to the National Hurricane Center is vital to the development of the Tropical Storm and Hurricane weather forecasts. Hurricane Hunter operations are a unique flight operation that presents challenges to both aircrew and air traffic controllers.

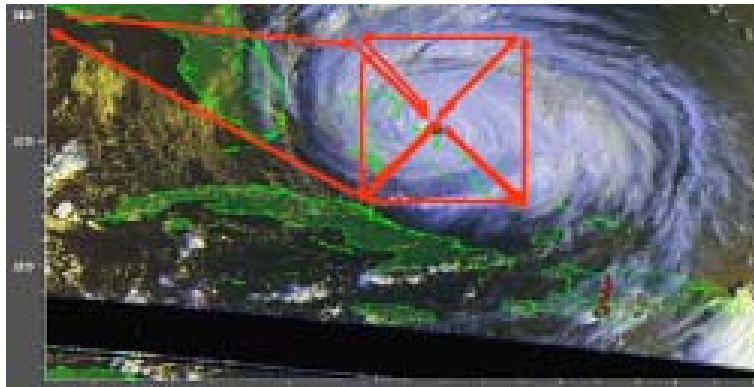
In the interest of conducting safe operation, Hurricane Hunters require to conduct missions using continuous IFR procedures. As the Hurricane Hunters area of operation extends from the Mid-Atlantic (55W) west to the Caribbean, Gulf of Mexico, Central and Eastern Pacific, and Western Atlantic, it is necessary to ensure coordination between air navigation service providers (ANSPs) of North American, Central American, and Caribbean States.

Working Area Extension

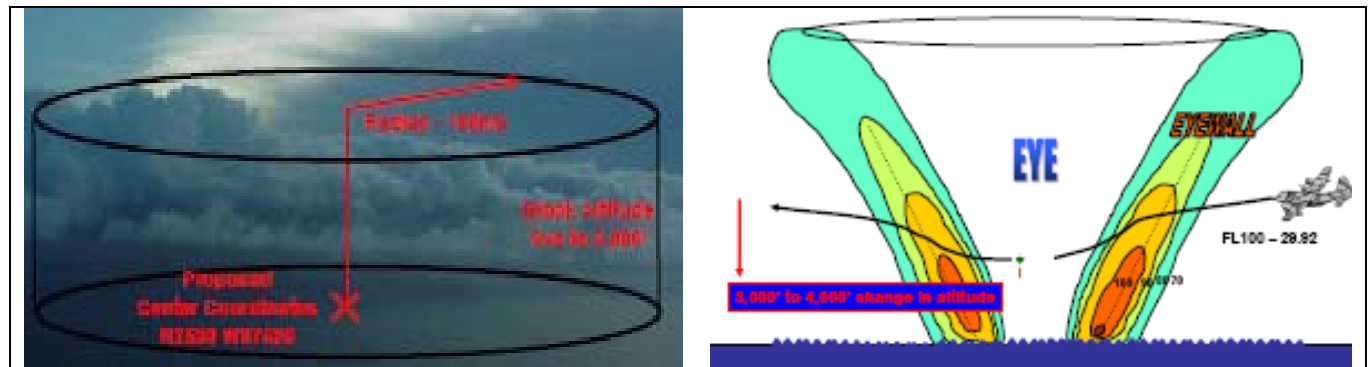
The Hurricane Hunters Flight Operations contain the following operational considerations for continuous IFR operation:

1 Description of Working Area defined by

- a) Normal legs Radius are 105 NM from the eye, but every Storm is different. In some cases the length reaches an extension of 200 NM, centered by coordinates.



b) Block altitudes are required from FL120 and below



IFR Operations

The Hurricane Hunters working area is normally occupied from 6 to 9 hours in the storm mapping extent of Hurricane & Tropical Storm force winds

- Maintaining continuous IFR operations in:
- Sometimes within controlled airspace (Class A – E)
- Sometimes in uncontrolled airspace (Class F or G)
- Night or Day (24/7)
- IMC or VMC
- En route or in Working Area

Required operating procedures in Working Area

Hazards to safe flight operations

- ◆ -“Other” Aircraft transiting within Working Area
- ◆ -“Warning” or “Restricted” Areas
- ◆ -Helicopter Operations around Oil Platforms

While operating in uncontrolled airspace

- ◆ TEAL and NOAA aircraft may provide own separation from each other while in the Working Area
- ◆ Aircraft Separation between TEAL or NOAA aircraft and other known aircraft
- ◆ Aircrews are responsible for Obstacle Clearance when operation is below minimum IFR altitude (MIA)
- ◆ No Position Reports but “Ops Normal” calls

While operating within controlled airspace

- ◆ Receive ATC Clearance to Change Working Area
- ◆ Flexibility to Change or Move Working Area when operation is between 2 FIRs providing new location, radius, & block altitude requested
- ◆ Normal IFR Separation is provided from other Aircraft and traffic advisories
 - -En route and Descent into Working Area
 - -During Working Operations
 - -Recovery and Climb out of Working Area

- A3 -

- ◆ Communication with ATC
- ◆ Before Flight – Filing Flight Plan and Coordination with “Warning” or “Restricted” Area Control Agencies, as required
- ◆ With ACCs while in Delay Area
 - “Ops Normal” Calls
 - VHF or Sat Phone
 - HF direct or ARINC relay
 - No Position Reports but “Ops Normal” calls
- **Continuous IFR Operations**
 - -Maintaining active IFR flight plan and ATC clearance, as required
 - -Operating between 2 different Center’s
 - -Reduce Hazards to Safe Flight operations when Operating in “Warning” or “Restricted” Areas and/or between 2 different FIRs.

- END -