



# **Letter of Agreement**

**Revision 1.1** 

## IVAO - Miami ARTCC & Havana FIR

## 1. Purpose

The purpose of this document is to establish the operational procedures for the coordination of air traffic between Miami ARTCC and Havana FIR when providing Air Traffic Services (ATS) to all air traffic operating under instrument flight rules and aircraft operating under visual flight rules that cross the common boundary of Miami ARTCC and Havana FIR. These procedures are complementary to the IVAO standards and recommended practices.

### 2. Distribution

XA division, Cuba division, and all air traffic personnel at Miami ARTCC and Havana FIR.

### 3. Terms of Reference

- For purposes of implementing this document, Miami Center and Havana Center shall treat the term "will" as meaning a procedure that is mandatory in nature.
- The clearance limit shall be the destination airport unless otherwise coordinated.

## 4. Beacon code assignments

- Southbound traffic will be assigned a Miami Center beacon code, which will be used within the Havana FIR.
- Northbound traffic will be assigned a Havana Center beacon code, which will be used within the Miami ARTCC.
- If a Beacon Code conflict exists, the receiving facility will provide the transferring facility with a new beacon code, or may change the beacon code with prior coordination.

#### **5. General Procedures**

- Controllers of both facilities should initiate a radar handoff no later than 10 NM from the common airspace boundary. Transferring control and communications shall be completed before aircraft crosses the common airspace boundary.
- Controllers shall not issue changes of altitude or heading prior to crossing the common airspace boundary, unless previously coordinated.
- Unless otherwise coordinated, all aircraft shall be transferred between facilities using one of the fixes along the common boundary as described in Transfer of Control Points table.
- Aircraft shall be delivered at altitudes correct for direction as described in Vertical Separation tables.
- Controller of both facilities should inform runway in use for both KMIA and MUHA airports.
- If only TMA Havana (MUHA\_APP) is online, Miami Center will transfer all aircraft arriving to airports (MUHA, MUNG, MUPB, MUCL) to MUHA\_APP at common boundary.
- TMA Havana (MUHA\_APP) will maintain control of all aircraft departing from (MUHA,MUNG,MUPB,MUCL) transitioning via CANOA or MAXIM until they reach common boundary and will properly handoff to Miami Center when Havana Center is offline.

## **6. Coordination Procedures**

Coordination and Transfer of Control Points (TCP) for aircraft crossing the common boundary will be as follows:

## TCP table

Airnav or Route	Fix
A301/UL780/A509/Y297/G430/UG430/R644	URSUS
B503/M218/UM218/M330/UM330/R625/R630/UR625/Y307	ENAMO
B646/UB646/B789/UB789/Y196/M346/UM346	CANOA
G437/UG437/M329	DYNAH
G448/UG448/UL471/L471/UL345/L345/Y183	IKBIX
R628/UR628/M328	TANIA
G765/UG765/Y262	MAXIM
B760/UL210/UL417/L417/Y259	BORDO
G629/UG629	OVALU
M595/UM595	ERRCA
M331/UM331/L347/UL347	GHANN
UL599	BYGON
Y442/335/UM335	FUNDI
A899/UM347/Y217/Y325/Y329	ZEUSS
M348/UM348	MEDKO

# 7. IFR separation

## **Vertical Separation**

EVEN – Aircraft entering Miami Center from Havana Center airspace		
AIRWAY	FIX	
G448/UG448/UL471/L471/UL345/L345/Y183	IKBIX	
R628/UR628/M328	TANIA	
A899/UM347/Y217/Y325/Y329	ZEUSS	
G437/UG437/M329	DYNAH	
B503/M218/UM218/M330/UM330/R625/R630/UR625/Y307	ENAMO	
B760/UL210/UL417/L417/Y259	BORDO	

ODD – Aircraft entering Havana Center from Miami Center airspace		
AIRWAY	FIX	
Y442/335/UM335	FUNDI	
A301/UL780/A509/Y297/G430/UG430/R644	URSUS	
R628/UR628/M328	TANIA	
G437/UG437/M329	DYNAH	
B503/M218/UM218/M330/UM330/R625/R630/UR625/Y307	ENAMO	
B760/UL210/UL417/L417/Y259	BORDO	

The remaining TCP will be assigned altitudes according to the semi-circular rules.

## **Horizontal Separation**

- All northbound aircraft entering Miami Center and all southbound landing within Havana FIR – 10 NM
- All other southbound aircraft 20 NM
- During events, separation can be increased after previous coordination.

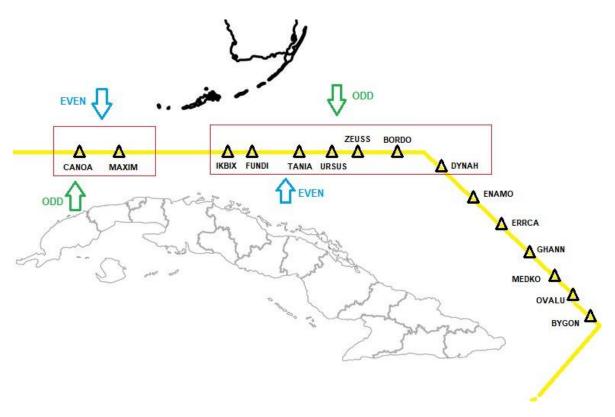
### 8. Preferred Routes

For MUHA arrivals/departures transitioning ZMA west side coastal area:

- When MUHA is on runway 06 operations, jet arrivals must be routed via CANOA.
- When MUHA is on runway 06 operations, jet departures must be routed via MAXIM G765 FIS or MAXIM Y262 LULLS flight plan.
- When MUHA is on runway 24 operations, jet arrivals must be routed via MAXIM.
- When MUHA is on runway 24 operations, jet departures must be routed via CANOA B646 FIS or CANOA Y196 LULLS flight plan.

Annex 1

Miami/Havana common FIR / Altitude Assignments



This letter of agreement becomes effective 5/20/2021.

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## 9. Revisions

CHANGE DESCRIPTION	OBERVATIONS	DATE
Added specific transition fixes to chapter 5, section 7.	Amended to clarify TMA Habana exact transitions to use when extending area of control.	5/13/2021