

# HAVANA FIR

## Standard Operating Procedures (SOP)

### ATC Procedures - Generalities

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This document contains essential information regarding our operations and policies. Therefore, it is required reading for all Havana FIR controllers.

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*Virtual Havana FIR is governed by VATCAR,  
The VATNA Caribbean Division*



## Section – Air Traffic Control Procedures

### 1. Generalities

#### 1.1. ATC service language

Spanish is the preferred language, but since English is the international language of ATC, even in VATSIM, Controllers must be able to provide services in English as well. Thus, English only service is permitted. It is recommended to specify the available language(s) in the Controller's text Info/ATIS.

#### 1.2. Charts

Charts in force are those published in the Havana FIR website, section "Charts".

#### 1.3. Transition Altitude (TA)

Transition Altitude for Cuban airports is 3000 feet except for MUBA, MUCU, MUGT and MUMO which is 6000 feet; MUMZ which is 4000 feet; and MUTD which is 5000 feet.

#### 1.4. Transition level (TL)

The transition level for each individual airport must be set at 1000 feet above the corresponding transition altitude (TA) provided that the local QNH is equal or above 1013mb. For local QNH below 1013 the TL must be set at 2000 feet above the TA.

Dedicated Approach/Terminal Controllers are required to publish on their Controller's info section, the current TL for the serviced airport if the QNH is below 1013. Although not required it's suggested to publish the TL even if the QNH is 1013 or above. The TL to publish will be that of the main airport for terminal areas serving more than one.

#### 1.5. Preferred runway

The preferred runway for each airport should normally be selected as the active/runway in use provided that the tail wind component (TWC) for that runway does not exceed 5 knots. Gusts and variable wind direction should be considered when determining the TWC.

Table 1.1: Preferred runways by airport

Airport	MUCC	MUCL	MUCM	MUCU	MUHA	MUHG	MUSC	MUVR
Runway	08	12	07	10	06	05	08	06

The only exception to this procedure is due to operational reasons and must be coordinated with all the facilities involved.

(Typical examples:

For a METAR like "MUHA 211755Z 18005KT 9000 BKN030 31/22 Q1015":

In this case there is a TWC for the preferred runway (06), but since it's less than 5kt the runway in use should remain the preferred.

For a METAR like "MUHA 211755Z 18005G20KT 040V140 9000 BKN030 31/22 Q1015":

In this case there are gusts of up to 20kt, which means the TWC could go up to 10kt  $\{TWC = \cos(180-60) * 20 = -10\}$ . Since the TWC is likely to be higher than 5kt for the preferred runway, the opposite runway (24) should be more suitable and must be selected as the runway in use.

For a METAR like "MUHA 211755Z 16010KT 140V220 9000 BKN030 31/22 Q1015":

In this case the TWC for the average wind is less than 5kt  $\{TWC = \cos(160-60) * 10 = -1.7\}$  but taking into account the variable wind direction, the TWC is likely to be higher than 5kt for the preferred runway  $\{TWC = \cos(220-60) * 10 = -9.4\}$ , so the opposite runway (24) would be more suitable and should be selected as the runway in use.

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#### 1.6. Restricted airspace

In virtual Havana FIR the following "real world" prohibited areas, located north of Havana, are to be simulated:

Table 1.2: Simulated Prohibited Areas

Identification	Name	Coordinates	Lateral limits
<b>MU P4</b>	Santa Fe	230420N 0822720W 230300N 0822900W 230504N 0823100W 230632N 0822922W 230420N 0822720W	UNL GND/MSL
<b>MU P10</b>	La Habana	231112N 0821800W 230630N 0821800W 230630N 0822400W 230934N 0822400W 231112N 0821800W	UNL GND/MSL

IFR flights should be kept away from the above prohibited areas. Special attention is required with traffics departing MUHA from runway 06 and going west, which naturally tend to turn left after departure.

This restriction does not apply to VFR flights wanting to overfly the simulated prohibited areas. Likewise, due to the nature of the simulated environment and VATSIM rules, no conflict at all should arise from pilots unintentionally or intentionally overflying those areas.

1.7. Automated Terminal Information Service (ATIS)

The only ATIS station allowed in Havana FIR is MUHA\_ATIS. It serves the Jose Marti Intl airport on frequency 132.500. The primary position responsible for the ATIS is MUHA\_TWR, followed in its absence by MUHA\_APP. The ATIS policy established by VATSIM must be followed.