Letter of Agreement

Between Maghreb vACC and Spain vACC

Content

1. Introduction

The purpose of this Letter of Agreement (LoA) is to define the coordination procedures between the FIRs of Madrid (LECM), Canarias (GCCC) and Casablanca (GMMM) for the Provision of AirTraffic Services.

The procedures in this LoA are for use on the VATSIM Network only and should never be adopted for real world use.

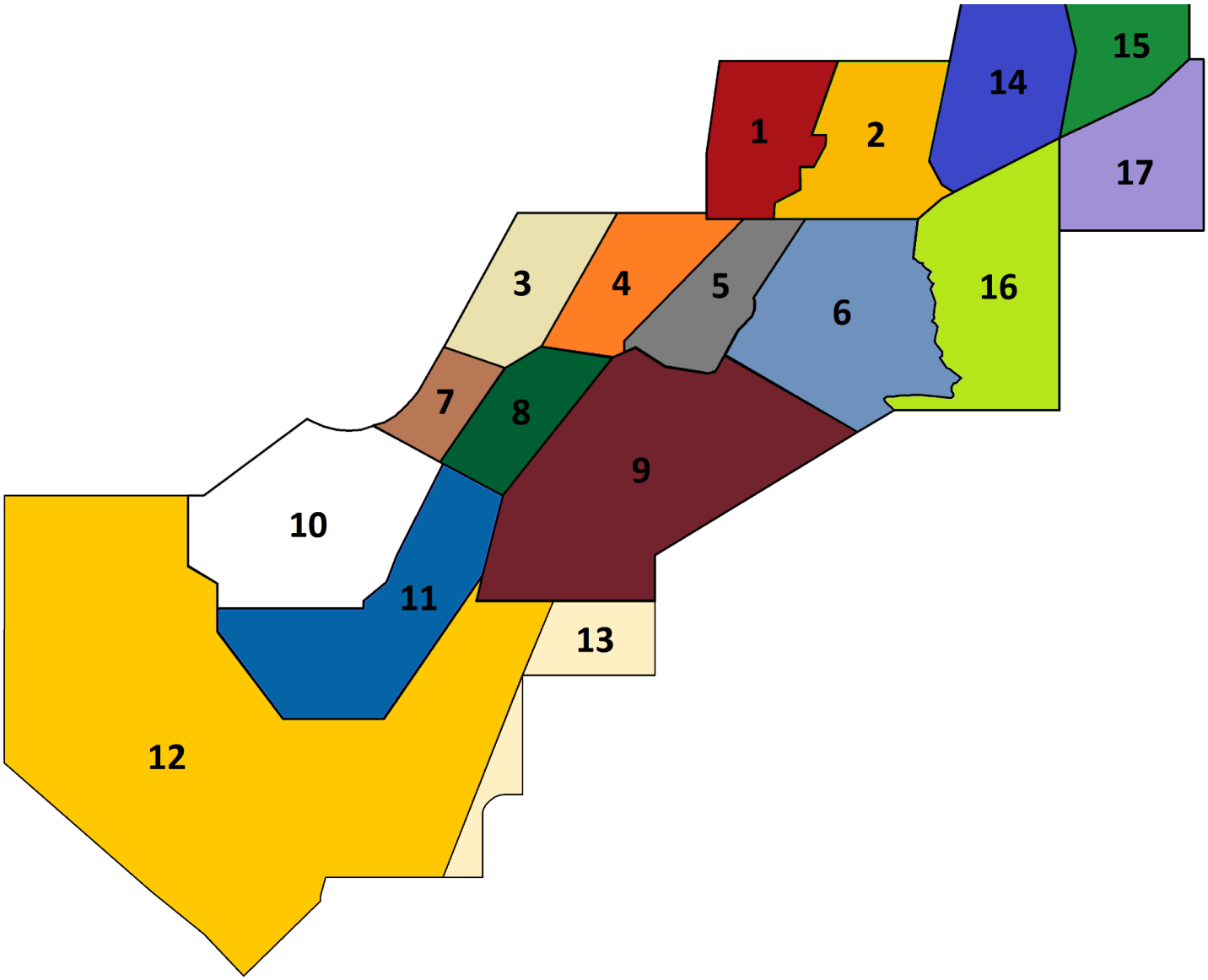
2. General Procedures

- Traffic shall be transferred to the neighbouring sector 10 NM before reaching its boundary.
- Traffic shall be transferred complying with the separation guidelines as of RVSM (5 NM horizontally / 1000 ft vertically).
- In case of having a sequence of traffic with the same destination, extra 5 NM shall be applied horizontally. Making a total horizontal separation of 10 NM.
- In case of traffic being transferred while climbing or descending, traffic shall be transferred 3000 ft before reaching its Cleared Flight Level.

2.1. Cruising flight levels

- Everything going towards mainland Spain will fly an EVEN Flight Level.
- Everything going towards the Canary Islands will fly an ODD Flight Level.

3. Sector Layout



3.1. Spain

Position	Name	Frequency	Sector
LECS_SM2_CTR	Sevilla Control	135.025	1
LECS_NCS_CTR	Sevilla Control	132.675	2
LECS_CTR	Sevilla Control	133.350	1 and 2
LECM_ALL_CTR	Madrid Control	133.755	1 and 2
GCCC_RW3_CTR	Canarias Control	126.500	10
GCCC_RES_CTR	Canarias Control	129.100	11
GCCC_R6_CTR	Canarias Control	123.650	10 and 11
GCCO_CTR	Canarias Radio	130.950 - 8861 kHz	13 (below FL245) and 12
LECB_LLI_CTR	Barcelona Control	129.530	14
LECB_MVS_CTR	Barcelona Control	134.985	15
LECB_RW_CTR	Barcelona Control	134.455	14
LECB_RE_CTR	Barcelona Control	133.030	15
LECB_RS_CTR	Barcelona Control	126.650	14 and 15
LECB_CTR	Barcelona Control	132.355	14 and 15

Check Spain vACC sectors in the following link: sectors

3.2. Maghreb

Position	Name	Frequency	Sector
GMAC_ON_CTR	Agadir Radar	136.000	3
GMAC_OS_CTR	Agadir Radar	124.500	7
GMAC_O_CTR	Agadir Radar	136.000	3 and 7
GMAC_WN_CTR	Agadir Radar	128.800	4
GMAC_WS_CTR	Agadir Radar	127.000	8
GMAC_W_CTR	Agadir Radar	128.800	4 and 8
GMAC_CTR	Agadir Radar	124.500	3, 4, 7 and 8
GMMM_N_CTR	Casablanca Radar	125.500	5
GMMM_S_CTR	Casablanca Radar	126.700	9

GMMM_E_CTR	Casablanca Radar	125.100	6
GMMM_NE_CTR	Casablanca Radar	127.100	5 and 6
GMMM_CTR	Casablanca Radar	126.500	5, 6 and 9
GMMM_ALL_CTR	Casablanca Radar	131.925	3 to 9
DAAA_NO_CTR	Algiers Control	125.700	16
DAAA_CTR	Algiers Control	124.900	16 and 17
DAAA_AI_CTR	Algiers Control	127.300	17 (SFC - FL245)
DAAA_AS_CTR	Algiers Control	132.450	17 (FL245 - FL450)

Check Maghreb vACC sectors in the following link: sectors

The positions that are above in the table have priority over those that are below

4. Neighbouring Airports With Coordinated Descent

4.1. Tanger (GMTT)

The location of Tanger airport makes coordination quite challenging as 90% of the descent of planes inbound from the north will be handled by Spanish ATC. In consequence the arrival shall be given by Spanish ATC as well. All transfers regarding planes inbound Tanger from Spanish ATC will be done directly to GMTT_APP (Ibn Batouta Approach - 121.200) if online, otherwise to GMMM_N_CTR, GMMM_CTR or GMMM_ALL_CTR.

Arrivals:

Via	RWY 28 (preferential)	RWY 10	Altitude at FIX	Transfer Point
ABIRO	ABIRO 2A	ABIRO 1A	FL100 at BAMBA	10 NM before BAMBA
NORLO	NORLO 2A	NORLO 1A	FL060 at ADKIM	10 NM before ADKIM
LAMAD	LAMAD 2A	LAMAD 1A	FL100 at GALTO	10 NM before GALTO

Departures:

All Departures towards Spanish Airspace will be instructed to climb to FL100 and 3000 ft before reaching that altitude will be transferred to the appropriate Spanish ATS.

4.2. Tetouan (GMTN)

Just like Tanger, Tetouan is quite a challenging airport when it comes to coordination as well. Tetouan doesn't receive as much traffic so the arrival procedures are quite a bit easier. Tetouan does not have any STAR procedure and only one runway has an established approach procedure.

Arrivals:

Arrivals shall be instructed to descent to FL70 and be transferred 10 NM before reaching GALTO to GMTN_TWR (Saniat R'mel Tower - 119.000) procedural.

Departures:

Departures will be instructed to climb to FL60 and 3000 ft before reaching that altitude will be transferred to the appropriate Spanish ATS.

4.3. Málaga (LEMG)

The sunny airport in Costa del Sol might not be as challenging as Tanger when it comes to ATC coordination but still is situated close enough for it to have some coordination to be done between the two ATS providers.

Arrivals:

Via	RWY 12/13 (preferential)	RWY 31
PIMOS	PIMOS 1A	PIMOS 1B
EPATA	EPATA 1A	EPATA 1B
VJF	VJF 1A	VJF 1B

4.4. Gibraltar (LXGB)

The strategically well-situated British airport makes coordination quite complicated. As a reminder, Gibraltar is controlled by VATSIMUK.

Arrivals:

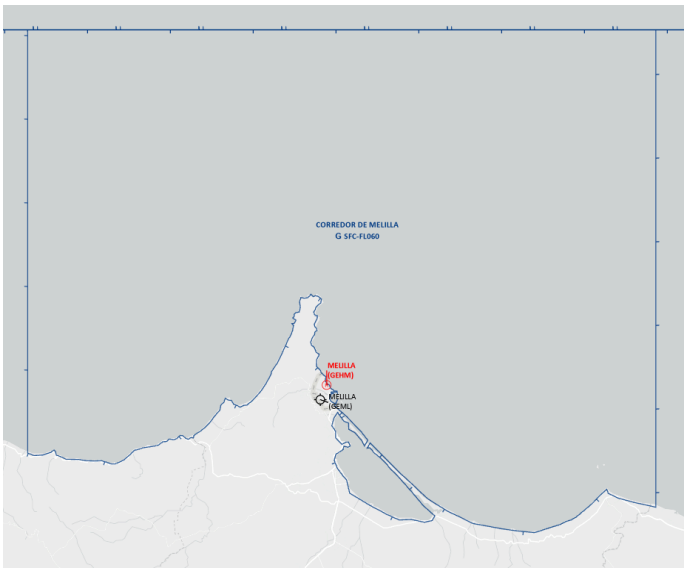
Arrivals from the south to Gibraltar are unlikely but possible. There are two possible entries:

- Via BAMBA, in which case arrival will be provided by Spanish controllers and later on transferred to Casablanca for further descent. From BARPA to PIMOS the ATC service will be provided by Gibraltar Approach. If offline, traffic may be told to switch over to Unicom.
- Via GALTO, in which case the arrival will be provided by Casablanca and later on transferred directly to Gibraltar Approach.

4.5. Melilla (GEML)

For the purpose of simplification Casablanca has delegated a box of airspace around Melilla to the Area Control Center of Seville. Thanks to that, planes transiting from Spain to Melilla won't have to change unnecessarily between frequencies.

As seen in the image below, this delegation of airspace goes from surface up to FL60. From FL70 onwards, this airspace is controlled by Casablanca.



4.6. Dakhla international airport (GMMH)

Traffic with destination GMMH shall be transferred from Casablanca Radar to Canarias Radio (GCCO_CTR) 10 NM before the waypoint SOLNA. GCCO_CTR makes the handoff to GMMH_APP (Dakhla Approach - 119.500) when cleared to FL090. If GMMH_APP, GMMM_S_CTR, GMMM_CTR nor GMMM_ALL_CTR is connected, GCCO_CTR must transfer the traffic to unicom.

Traffic departing from GMMH shall be instructed from GMMH_APP to climb FL080. GMMH_APP makes the handoff to GCCO_CTR.

4.7. Hassan I international airport (GMML)

Traffic in Canarias airspace with destination GMML shall be instructed to descend FL130 and handoff to GMML_APP (Hassan I Approach - 127.500). If GMML_APP, GMMM_S_CTR, GMMM_CTR nor GMMM_ALL_CTR is connected and the traffic is in Canarias airspace, Canarias must transfer the traffic to unicom.

Traffic departing from GMML shall be instructed from GMMH_APP to climb FL120.

4.8. Lanzarote (GCRR)

Coordination is not very complicated for Lanzarote, but traffic arriving GCRR via TERTO or DEVLA must begin the descent and have a STAR assigned before entering the Canary Islands airspace because the TOD is usually found in the Casablanca FIR.

RWY 03 (preferential)

Via	STAR	Altitude at FIX
TERTO	TERTO 1P	FL290 at TERTO
DEVLA	DEVLA 4P	FL150 at DEVLA

RWY 21

Via	STAR	Altitude at FIX
TERTO	TERTO 5Q	FL250 at TERTO
DEVLA	DEVLA 5Q	FL150 at DEVLA

4.9. Fuerteventura (GCFV)

Pretty much the same as Lanzarote, traffic arriving GCFV via RUSIK must begin the descent and have a STAR assigned before entering the Canary Islands airspace because the TOD is usually found in the Casablanca FIR.

Via	RWY 01 (preferential)	RWY 19	Altitude at FIX
RUSIK	RUSIK 4S	RUSIK 5W	FL200 at RUSIK

4.10. Canaries Airports (GCCC)

Agadir or Casablanca Radar shall assign STARs for traffic arriving to Canarias via KONBA, SAMAR, VASTO, TERTO and RUSIK. Active runways coordination between Canarias and Casablanca/Agadir is compulsory (VCCS or text). In case there is no ATC in the arriving airport, it is at discretion of Casablanca/Agadir Radar to check the METAR and assign a STAR (preferential runways are those which are above in the table).

To	Runway	STAR
GCFV	01	RUSIK4S*
		TERTO7S
	19	RUSIK5W*
		TERTO8W
GCRR	03	DEVLA4P*
		TERTO1P*
	21	DEVLA5Q*
		TERTO5Q*
GCLP	03L 03R	RUSIK7Z
		TERTO9Z
		SAMAR6C
		KONBA6C
	21R 21L	RUSIK3D
		TERTO7D
		SAMAR5D
		KONBA5D

To	Runway	STAR
GCTS	07	RUSIK2K
		TERTO2Y
		KONBA2X
	25	RUSIK2U
		TERTO2U
		KONBA2Z
GCXO	12	TERTO7S
		TERTO8W
	30	RUSIK4S
		RUSIK5W
GCLA	36	KONBA3V
		RUSIK1T
		TERTO7V
	18	TERTO4T
		RUSIK4X
		KONBA1Y

*see 4.8. and 4.9.

5. Amendment History

Revision	Effective Date	Notes
1	10 January 2020	First publication
2	1 July 2022	Staff, logo and Moroccan Sahara operation's updated
3	25 January 2024	Format, logos, names, sectors and procedures updated. Added various airports
4	9 June 2024	STARs of GCTS updated
5	6 September 2024	STARs of GCLP updated

This document has been created through collaborative efforts between the ATC Operations Departments of Spain vACC and Maghreb vACC. It has undergone thorough review and received approval from:

- Spain vACC Director - Alberto Medina (1195243)
- Spain vACC Deputy Director - Dani García (1273782)
- Spain vACC Operations Director - Toni Monner (1206448)
- Spain vACC Deputy Operations Director - Álvaro Ruiz (1495376)
- Maghreb vACC Director - Réda Faiz (1171306)
- Maghreb vACC Operations Director - Bobbie Chell (1444138)
- Maghreb vACC Head of ATM Training - Emir Dhil-Maanli (1516924)