

# LETTER OF AGREEMENT

Between

VACC ROMANIA  
Bucharest FIR

and

VATSIM ADRIA  
Beograd FIR

The logo for ROYACC features the word "ROYACC" in a bold, black, sans-serif font. The letter "O" is stylized with a colorful graphic element consisting of a yellow and red shape that resembles a stylized "Y" or a wing, positioned behind the "O".The logo for VATADRIA features the word "VATADRIA" in a blue, sans-serif font. The letter "A" is stylized with a red graphic element that resembles a wing or a stylized "V", positioned behind the "A".

Effective: **16.04.2020**

A handwritten signature in black ink that reads "George Enciu".

George Enciu,  
Deputy Director  
VACC Romania

A handwritten signature in black ink that reads "Marko Tomcic".

Marko Tomcic,  
Director  
VATSIM Adria

## 1. General

### 1.1. Purpose.

The purpose of this Letter of Agreement is to define the coordination procedures to be applied between VACC Romania and VATSIM Adria when providing ATS to air traffic (IFR/VFR) on the VATSIM network.

All information and procedures described in this Letter of Agreement shall not be used for real world purposes.

### 1.2. Operational Status.

All operational significant information and procedures contained in this Letter of Agreement shall be distributed to all concerned controllers by appropriate means. This Letter of Agreement itself constitutes public information.

### 1.3. Validity.

This Letter of Agreement is signed on **16.04.2022** and becomes effective on **23.04.2020 (AIRAC 2005)**.

## 2. Definitions & Abbreviations

### 2.1. Definitions

- 2.1.1. **General Air Traffic (GAT):** All movements of civil aircraft, as well as all movements of State aircraft (including military, customs and police aircraft) when these movements are carried out in conformity with the procedure of ICAO.
- 2.1.2. **Operational Air Traffic (OAT):** All flights which do not comply with the provisions stated for GAT and for which rules and procedures have been specified by appropriate national authorities.
- 2.1.3. **Release for Climb:** An authorization for the accepting unit to climb (a) specific aircraft before the transfer of control.  
Note: The transferring unit remains responsible for separation within its Area of Responsibility unless otherwise agreed.
- 2.1.4. **Release for Descend:** An authorization for the accepting unit to descend (a) specific aircraft before the transfer of control.  
Note: The transferring unit remains responsible for separation within its Area of Responsibility unless otherwise agreed.
- 2.1.5. **Release for Turn:** An authorization for the accepting unit to turn (a) specific aircraft away from the current flight path by not more than 45° before the transfer of control.  
Note: The transferring unit remains responsible for separation within its Area of Responsibility unless otherwise agreed.
- 2.1.6. **Area of Responsibility (AoR):** An airspace of defined dimensions where a sole ATS unit has responsibility for providing air traffic services.

### 2.2. Abbreviations

- 2.2.1. **vACC:** Virtual Area Control Center
- 2.2.2. **RFL:** Requested Flight Level
- 2.2.3. **ATS:** Air Traffic Service
- 2.2.4. **LoA:** Letter of Agreement
- 2.2.5. **IFR:** Instrument Flight Rules
- 2.2.6. **VFR:** Visual Flight Rules
- 2.2.7. **FIR:** Flight Information Region
- 2.2.8. **ACC:** Area Control Center
- 2.2.9. **ATCC:** Air Traffic Control Center
- 2.2.10. **GAT:** General Air Traffic
- 2.2.11. **OAT:** Operational Air Traffic
- 2.2.12. **GND:** Ground
- 2.2.13. **AoR:** Area of Responsibility
- 2.2.14. **COP:** Coordination Point
- 2.2.15. **SSR:** Secondary Surveillance Radar

### **3. Areas of Responsibility & Sectorization**

#### **3.1. Areas of Responsibility.**

**The lateral and vertical limits of the respective areas of responsibility areas follows:**

##### **3.1.1. Bucharest FIR.**

Lateral limits: Bucharest FIR as described in AIP Romania.

Vertical limits: GND – FL660 as in section LR ENR 2-1.

##### **3.1.2. Beograd FIR.**

Lateral limits: Beograd FIR as described in AIP Srbija.

Vertical limits: GND – FL660 as in section LY ENR 2-1.

## 3.2. Sectorization

### 3.2.1. Bucharest FIR

#### 3.2.1.1. Sector LRBB-MOPUG

Lateral limits: sector LR-MOPUG (see Appendix A1)

Vertical limits: FL105 – FL660

Responsible ATS unit (in order of precedence):

1. LRBB\_L\_CTR (Bucharest Radar), 122.025
2. EURE\_FSS (Eurocontrol East), 135.300 (above FL245)

Remark: EURE\_FSS is an ATS unit of EuroCenter vACC.

#### 3.2.1.2. Sector LRBB-LOMOS

Lateral limits: sector LR-LOMOS (see Appendix A1)

Vertical limits: FL105 – FL660

Responsible ATS unit (in order of precedence):

1. LRBB\_L\_CTR (Bucharest Radar), 122.025
2. EURE\_FSS (Eurocontrol East), 135.300 (above FL245)

Remark: EURE\_FSS is an ATS unit of EuroCenter vACC.

#### 3.2.1.3. Sector TMA ARAD

Lateral limits: sector APP-ARAD (see Appendix A1)

Vertical limits: 2500 AMSL – FL175

Responsible ATS unit (in order of precedence):

1. LRAR\_APP (Arad Approach), 127.250
2. LRBB\_L\_CTR (Bucharest Radar), 122.025

### 3.2.2. Beograd FIR

#### 3.2.2.1. Sector LYBA BLW FL325

Lateral limits: sector LYBA ATCC – Belgrade CTA (see Appendix A2)

Vertical limits: 1500 AGL – FL325

Responsible ATS unit (in order of precedence):

1. LYBA\_CTR (Beograd Center), 123.775
2. ADR\_E\_CTR (Adria Radar), 130.550
3. ADR\_CTR (Adria Radar), 130.000
4. EURE\_FSS (Eurocontrol East), 135.300 (above FL245)

Remark: EURE\_FSS is an ATS unit of EuroCenter vACC.

#### 3.2.2.2. Sector LYBA ABW FL325

Lateral limits: sector LYBA ATCC – Belgrade UTA (see Appendix A2)

Vertical limits: FL325 – FL660

Responsible ATS unit (in order of precedence):

1. LYBA\_CTR (Beograd Center), 123.775
2. ADR\_U\_CTR (Adria Radar), 130.750 (above FL325)
3. ADR\_E\_CTR (Adria Radar), 130.550
4. ADR\_CTR (Adria Radar), 130.000
5. EURE\_FSS (Eurocontrol East), 135.300 (above FL245)

Remark: EURE\_FSS is an ATS unit of EuroCenter vACC.

#### 3.2.2.3. Sector TMA BEOGRAD

Lateral limits: sector APP BEOGRAD (see Appendix A2)

Vertical limits: 1500 AGL – FL125

Responsible ATS unit (in order of precedence):

1. LYBE\_APP (Beograd Radar), 133.100
2. LYBA\_CTR (Beograd Center), 123.775
3. ADR\_E\_CTR (Adria Radar), 130.550
4. ADR\_CTR (Adria Radar), 130.000

#### 3.2.2.4. Sector TMA BEOGRAD

Lateral limits: sector APP BEOGRAD U (see Appendix A2)

Vertical limits: FL125 – FL205

Responsible ATS unit (in order of precedence):

1. LYBE\_APP (Beograd Radar), 133.100
2. LYBA\_CTR (Beograd Center), 123.775
3. ADR\_E\_CTR (Adria Radar), 130.550
4. ADR\_CTR (Adria Radar), 130.000

### 3.2.2.5. Sector TMA BATAJNICA

Lateral limits: sector APP BATAJNICA (see Appendix A2)

Vertical limits: 1500 AGL – FL125 (except TMA VRŠAC)

Responsible ATS unit (in order of precedence):

1. LYBT\_APP (Batajnica Approach), 126.050
2. LYBE\_APP (Beograd Radar), 133.100
3. LYBA\_CTR (Beograd Center), 123.775
4. ADR\_E\_CTR (Adria Radar), 130.550
5. ADR\_CTR (Adria Radar), 130.000

### 3.2.2.6. Sector TMA VRŠAC

Lateral limits: sector APP VRŠAC (see Appendix A2)

Vertical limits: 1500 AGL – 7500 AMSL

Responsible ATS unit (in order of precedence):

1. LYBT\_APP (Batajnica Approach), 126.050
2. LYBE\_APP (Beograd Radar), 133.100
3. LYBA\_CTR (Beograd Center), 123.775
4. ADR\_E\_CTR (Adria Radar), 130.550
5. ADR\_CTR (Adria Radar), 130.000

## **4. Procedures for Coordination**

### **4.1. Definitions**

A release is an authorization for the accepting ATS unit to climb, descend and/or turn (by no more than 45°) a specific aircraft before the transfer of control point. The transferring ATS unit remains responsible for separation within its Area of Responsibility unless otherwise agreed.

Wherever VATSIM callsigns are used to describe the terms of a certain procedure, this procedure is also applicable for all higher stations that take over the responsibilities of said station. E.g., procedures for an APP-stations are also applicable for the respective CTR station fulfilling the duties of said APP station.

The use of VATSIM callsigns in this document includes any variation of said callsign. E.g., any procedure applicable for LRBB\_L\_CTR may also be used by LRAR\_APP or and any procedure applicable for LYBA\_CTR may also be used by ADR\_E\_CTR.

### **4.2. General Conditions**

Coordination of flights shall take place via the agreed coordination points (COP).

Coordinated flights shall be handed off via a valid COP. Any deviation shall be coordinated verbally, by text or by Euroscope inter-sector coordination.

Traffic shall be handed off at the levels, defined in the regulations below. If a specified level restriction cannot be met due to a lower RFL, traffic shall be handed off at RFL, if this does not cause a conflict with any other traffic. Otherwise, traffic shall be coordinated.

If a traffic situation is not covered herein or closely matching a covered one, individual coordination between the concerned sectors shall be made.

After Transfer of Communications, traffic is NOT released for climb, descent or turns until Transfer of Control or otherwise specified in this Letter of Agreement.

↓FLxxx /↑ FLxxx means „descending / climbing to a specified FL“, without any further restriction. Any required crossing/speed restriction shall be added separately. At level means that the aircraft shall be in level flight on a published flight level and in accordance with east/ west odd/even policy.



### 4.3. IFR flights from Bucharest FIR to Beograd FIR

ADEP	ADES	COP	CFL	Condition	Upstream	Downstream	Remark	
LRAR	-	MAVIT	160	climbing	LRAR_APP	LYBA_CTR		
LRTR								
-	LYBE	ANASA	280	descending	LRBB_L_CTR	LYBE_APP		
-		DIRER	200	at level				
-	LYBT	ANASA	300	at level				
-		DIRER	160					
-	LYVR	MAVIT	A60	at altitude	LRAR_APP	LYBT_APP		
-	LYNI	ANASA	180	at level	LRBB_L_CTR	LYBA_CTR		
-		DIRER	280					
-	LYKV	ANASA	280	at level				
-		DIRER	260					
-	LQ*	ANASA	360↓	at level				
-		DIRER						
LROP	-	ANASA	340	climbing				
LRBS	-	ANASA	340	climbing				
LRCV	-	ANASA	320	climbing				

#### 4.4. IFR flights from Beograd FIR to Bucharest FIR

ADEP	ADES	COP	CFL	Condition	Upstream	Downstream	Remark	
-	LRAR	MAVIT	170	at level	LYBE_APP LYBA_CTR *	LRAR_APP		
-		ROMUX	130	descending				
-	LRTR	MAVIT	170	at level				
-		ROMUX	130	descending				
-	LROD	MAVIT	350	at level	LYBA_CTR	LRBB_L_CTR		
-		ROMUX	290					
-	LRCV	VELIP	330↓	at level				
LYBE	-	MAVIT	190	climbing	LYBE_APP			
	-	ROMUX	210					
	-	VELIP	270					
LYBT	-	MAVIT	190		LYBT_APP			
	-	ROMUX	210		LYBE_APP			
	-	VELIP	270					
LYVR	-	MAVIT	130	at level	LYBE_APP		LRAR_APP	
LYNI	-	VELIP	290	climbing	LYBA_CTR	LRBB_L_CTR		
LYKV	-	MAVIT	290					
	-	VELIP	230					

\* Internal coordination between Beograd APP and Beograd ATCC units shall be in force considering as decision factor the current traffic situation.

#### **4.5. VFR flights from Bucharest FIR to Beograd FIR**

For controlled VFR flights coordination, transfer of control and transfer of communication shall take place as for IFR flights, at least 5 **minutes** prior the established limit of jurisdiction, in order to obtain the required en route clearance for transit within the foreign airspace. Uncontrolled VFR flights shall be transferred to the appropriate sector if in radio contact. If online, LYBA\_CTR (Beograd Center) 123.775, shall be the primary frequency for uncontrolled VFR flights.

#### **4.6. VFR flights from Beograd FIR to Bucharest FIR**

For controlled VFR flights coordination, transfer of control and transfer of communication shall take place as for IFR flights, at least 5 **minutes** prior the established limit of jurisdiction, in order to obtain the required en route clearance for transit within the foreign airspace. Uncontrolled VFR flights shall be transferred to the appropriate sector if in radio contact. If online, LRBB\_I\_CTR (Bucharest Information) 129.400, shall be the primary frequency for uncontrolled VFR flights.

## **5. Special Procedures**

### **5.1. Non-standard arrivals**

Any of non-standard arrivals such as NON-PRNAVs etc. should be coordinated manually.

### **5.2. Flights from Bucuresti ACC / Arad APP to Beograd ATCC**

Flights departing from LROP and LRBS entering via ANASA above FL340 are subject to prior coordination, as follows: Beograd ACC shall verbally inform Bucuresti ACC regarding the higher available FLs based on the Requested Flight Level specified in the filled flight plan and considering the traffic situation.

Coordination for flights over all points below FL205 or over ANASA below FL125 shall be addressed to Beograd Terminal Sector.

Flights not following the prescribed route but affecting the adjacent FIR shall be coordinated.

### **5.3. Flights from Beograd ACC to Bucuresti ACC / Arad APP**

According to AIP Romania, filling "DCT" in flight plan, including changes of speed, level and/or flight rules by the aircraft operators is allowed inside TMA Arad above FL105, in accordance with the airspace utilization rules and availability.

Coordination for flights from 2500 ft. QNH to FL175 via ROMUX and MAVIT shall be addressed to APP ARAD.

Coordination for flight below 2500 ft. QNH via ROMUX and MAVIT shall be addressed to FIC BUCURESTI.

## 6. Transfer of Control and Transfer of Communications

### 6.1. Transfer of Control

Transfer of Control shall take place at the AoR boundary. If the downstream sector in EuroScope is set to **.break**, the procedure 6.4 is suspended and transfer of communication can only take place after the downstream sector has assumed the flight via the appropriate function of the radar client. If it becomes necessary to reduce or suspend transfers, a 5-minute prior notification is required. When transfers are suspended, the hand-off procedure (6.4) is suspended.

### 6.2. Silent transfer of control

Transfer of radar control from one elementary sector to another without the systematic use of bidirectional speech facilities may be affected provided the horizontal distance between the aircraft involved is not less than 10 NM within 5 minutes flying time after passing the transfer of control point unless vertical separation exists.

### 6.3. Transfer of Communications

Transfer of Communications shall be made at at least 15 NM prior the established limit of jurisdiction.

Transfer of communications can be performed either by voice or via Controller-Pilot Data Link Communications (CPDLC), when used.

### 6.4. Hand-Off procedure

Unless otherwise agreed between stations online, the following hand-off procedure shall apply:

1. The upstream sector initiates a transfer via the appropriate function of the radar client.
2. If the downstream sector does not refuse the TAG transfer in maximum of 5 seconds, the upstream sector sends the aircraft to the frequency of the downstream sector by voice or text.
3. Upon initial call the downstream sector assumes the flight via the appropriate function of the radar client, to avoid additional workload in relation to the transfer of radar identification.

### 6.5. Separation Minima

#### 6.5.1. Reduced longitudinal separation

A reduced minimum longitudinal separation of 3 minutes may be applied between aircraft on the same or crossing tracks, at the same level, climbing or descending. The transferring unit in each case must ensure that actual distance between aircraft is no less than 20nm.

#### 6.5.2. Radar separation

The following radar separation minima are to be applied:

- Bucharest FIR – ACC sectors: 10.0 NM
- Bucharest FIR – APP sectors: 5.0 NM
- Beograd FIR: 5.0 NM

If separation minima differ, the greater minima of the relevant unit shall be used.

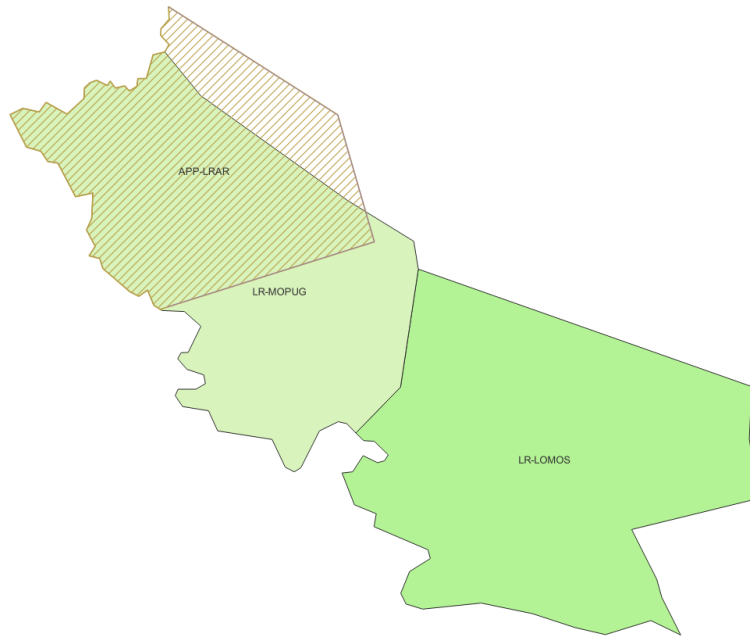
## **6.6. SSR Code Assignment**

Both ATS units shall transfer flights on verified discrete SSR codes. Any change of SSR code by the accepting ATS unit may only take place after the transfer of control point.

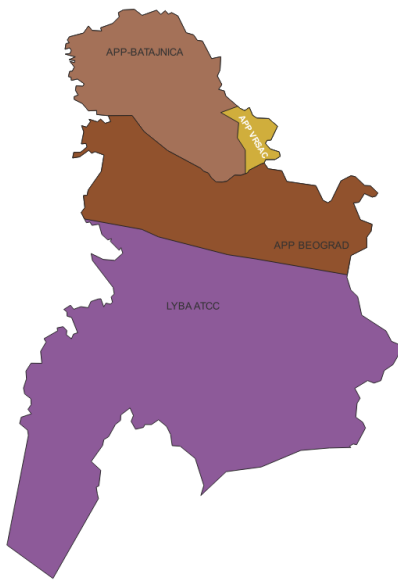
# APPENDIX A

## Sectorization

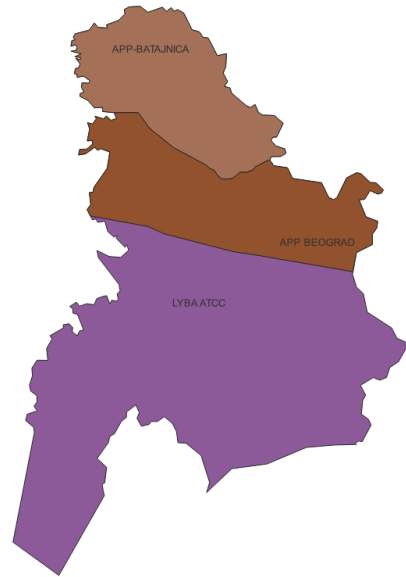
### A1: LRBB



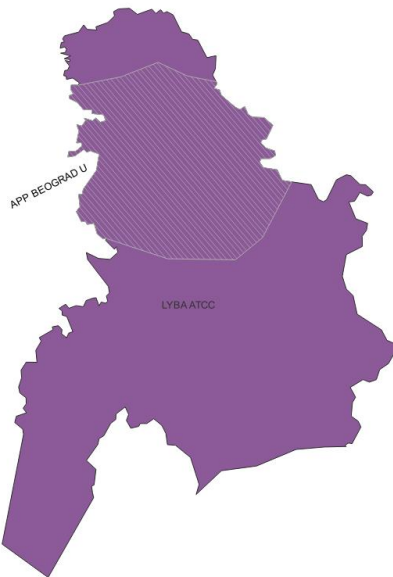
**A2: LYBA**



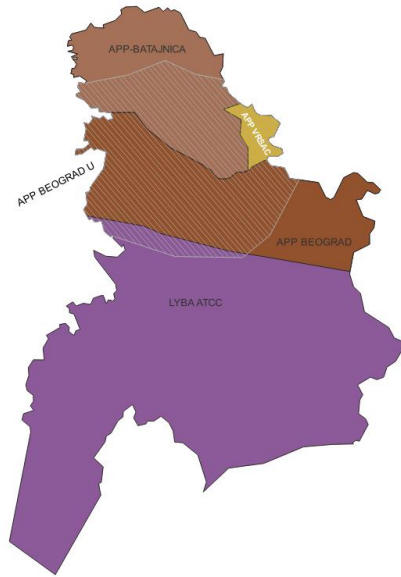
1500 AMSL – 7500 AMSL



7500 AMSL – FL125



FL125 – FL205



all sectors



## ANNEX A

### Version Control

Version	Date	Changes	Para
3.0	<b>11.08.2022</b>	New format using Eurocontrol template	all
		Other updates	<b>4.3, 4.4, 6.3</b>
2.0	<b>28.01.2022</b>	New format	all
1.0	<b>16.04.2020</b>	Initial document	all