

# LETTER OF AGREEMENT

between

VATAdria  
LDZO FIR / LJLA FIR

and

vACC Austria  
LOWV FIR

Effective: January 10<sup>th</sup>, 2021 (AIRAC 2101)

## 1 General.

### 1.1 Purpose.

The purpose of this Letter of Agreement is to define the coordination procedures to be applied between LDZO FIR, LJLA FIR and LOVV FIR 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 becomes effective on January 10<sup>th</sup>, 2021 (AIRAC 2101)

---

Filip Markoski  
Zagreb & Ljubljana FIR  
VAT Adria

---

Jakob Engelbrecht  
Wien FIR, ACCAUT2  
vACC Austria

## 2 Areas of Responsibility & Sectorisation

### 2.1 Areas of Responsibility.

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

#### 2.1.1 LJLA FIR

Lateral limits: LJLA FIR as described in the AIP Slovenia  
Vertical limits: GND – FL660

#### 2.1.1 LDZO FIR

Lateral limits: LDZO FIR as described in the AIP Croatia  
Vertical limits: GND – FL660

#### 2.1.2 Wien FIR

Lateral limits: Wien FIR as described in AIP Austria  
Vertical limits: GND – FL660

### 2.2 Sectorisation.

#### 2.2.1 LDZO FIR

##### 2.2.1.1 LDZA TMA

Lateral limits: according to AIP Croatia (south-easter border of MURA)  
Vertical limits: GND – FL205

Responsible ATS unit (in order of precedence):

1. LDZA\_APP (Zagreb Radar), 120.700
2. LDZO\_CTR (Zagreb Radar), 135.800
3. ADR\_W\_CTR (Adria Radar), 130.450
4. ADR\_CTR (Adria Radar), 130.000

##### 2.2.1.2 LDZO FIR

Lateral limits: according to AIP Croatia (south-easter border of MURA)  
Vertical limits: GND – FL325

Responsible ATS unit (in order of precedence):

1. LDZO\_CTR (Zagreb Radar), 135.800
2. ADR\_W\_CTR (Adria Radar), 130.450
3. ADR\_CTR (Adria Radar), 130.000
1. EURE\_CTR (Eurocontrol East), 135.300 (above FL245)  
Remark: EURE\_CTR is an ATS unit of EuroCenter vACC.

##### 2.2.1.3 LDZO UIR

Lateral limits: according to AIP Croatia (south-easter border of MURA)  
Vertical limits: FL325 – FL660

Responsible ATS unit (in order of precedence):

1. LDZO\_CTR (Zagreb Radar), 135.800
2. ADR\_U\_CTR (Adria Radar), 130.750
3. ADR\_W\_CTR (Adria Radar), 130.450
4. ADR\_CTR (Adria Radar), 130.000
2. EURE\_CTR (Eurocontrol East), 135.300 (above FL245)  
Remark: EURE\_CTR is an ATS unit of EuroCenter vACC.

#### 2.2.2 LJLA FIR

##### 2.2.2.1 Dolsko 1 TMA

Lateral limits: (see Appendix A3)  
Vertical limits: 2500ft – FL245

Responsible ATS unit (in order of precedence):

1. LJLJ\_APP (Ljubljana Radar) 135.270
2. LJLA\_CTR (Ljubljana Radar) 131.270
3. ADR\_W\_CTR (Adria Radar), 130.450
4. ADR\_CTR (Adria Radar), 130.000

#### 2.2.2.2 Dolsko 2 TMA

Lateral limits: (see Appendix A3)

Vertical limits: 2500ft – FL245

Responsible ATS unit (in order of precedence):

1. LJJL\_APP (Ljubljana Radar) 135.270
2. LJLA\_CTR (Ljubljana Radar) 131.270
3. ADR\_W\_CTR (Adria Radar), 130.450
4. ADR\_CTR (Adria Radar), 130.000

#### 2.2.2.3 Ljubljana 2 TMA

Lateral limits: (see Appendix A3)

Vertical limits: 2500ft – FL245

Responsible ATS unit (in order of precedence):

1. LJJL\_APP (Ljubljana Radar) 135.270
2. LJLA\_CTR (Ljubljana Radar) 131.270
3. ADR\_W\_CTR (Adria Radar), 130.450
4. ADR\_CTR (Adria Radar), 130.000

#### 2.2.2.4 Maribor 2 TMA

Lateral limits:(see Appendix A3)

Vertical limits: 2500ft – FL125

Responsible ATS unit (in order of precedence):

1. LJMB\_APP (Maribor Approach) 119.200
2. LJJL\_APP (Ljubljana Radar) 135.270
3. LJLA\_CTR (Ljubljana Radar) 131.270
4. ADR\_W\_CTR (Adria Radar), 130.450
5. ADR\_CTR (Adria Radar), 130.000

#### 2.2.2.5 LJLA FIR

Lateral limits: (see Appendix A3)

Vertical limits: GND – FL325

Responsible ATS unit (in order of precedence):

1. LJLA\_CTR (Ljubljana Radar) 131.270
2. ADR\_W\_CTR (Adria Radar), 130.450
3. ADR\_CTR (Adria Radar), 130.000
4. EURE\_CTR (Eurocontrol East), 135.300 (above FL245)  
Remark: EURE\_CTR is an ATS unit of EuroCenter vACC

#### 2.2.2.6 LJLA UIR

Lateral limits: (see Appendix A3)

Vertical limits: FL325 – FL660

Responsible ATS unit (in order of precedence):

1. LJLA\_CTR (Ljubljana Radar) 131.270
2. ADR\_U\_CTR (Adria Radar), 130.750
3. ADR\_W\_CTR (Adria Radar), 130.450
4. ADR\_CTR (Adria Radar), 130.000
5. EURE\_CTR (Eurocontrol East), 135.300 (above FL245)  
Remark: EURE\_CTR is an ATS unit of EuroCenter vACC

#### 2.2.3 Wien FIR

##### 2.2.3.1 Sector WG

Lateral limits: AoR WG – APP LOWG (see Appendix A1)

Vertical limits: GND – FL165

Responsible ATS unit (in order of precedence):

1. LOWG\_APP (Graz Radar) 119.300
2. LOVV\_S\_APP (Wien Radar) 119.300
3. LOVV\_L\_CTR (Wien Radar) 129.200
4. LOVV\_S\_CTR (Wien Radar), 133.800
5. LOVV\_CTR (Wien Radar), 134.350

### 2.2.3.3 Sector WK.

Lateral limits: AoR WK – APP LOWK (see Appendix A1)  
Vertical limits: GND – FL165  
                  GND – FL 125 (Southwest of Klagenfurt Line)  
                  9500ft – FL165 (Slovenian FIR north of DIPSA Line)  
Responsible ATS unit (in order of precedence):  
1. LOWK\_APP (Klagenfurt Radar) 123.725  
6. LOVV\_S\_APP (Wien Radar) 119.300  
7. LOVV\_L\_CTR (Wien Radar) 129.200  
8. LOVV\_S\_CTR (Wien Radar), 133.800  
9. LOVV\_CTR (Wien Radar), 134.350

### 2.2.3.2 Sector S1.

Lateral limits: Sector S (see Appendix A2)  
Vertical limits: FL165 – FL305  
Responsible ATS unit (in order of precedence):  
1. LOVV\_S\_CTR (Wien Radar) 133.800  
2. LOVV\_CTR (Wien Radar), 134.350  
3. EURM\_CTR (Maastricht Radar), 135.450 (above FL245)  
Remark: EURM\_CTR is an ATS unit of EuroCenter vACC.

### 2.2.3.3 Sector S25

Lateral limits: Sector S (see Appendix A2)  
Vertical limits: FL305 – FL660  
Responsible ATS unit (in order of precedence):  
1. LOVV\_U\_CTR (Wien Radar) 131.350  
4. LOVV\_S\_CTR (Wien Radar) 133.800  
2. LOVV\_CTR (Wien Radar), 134.350  
3. EURM\_CTR (Maastricht Radar), 135.450 (above FL245)  
Remark: EURM\_CTR is an ATS unit of EuroCenter vACC.

### 2.2.3.2 Sector MURA S1.

Lateral limits: Sector MURA (see Appendix A2)  
Vertical limits: FL125 – FL305  
Responsible ATS unit (in order of precedence):  
1. LOVV\_S\_CTR (Wien Radar) 133.800  
2. LOVV\_CTR (Wien Radar), 134.350  
3. EURM\_CTR (Maastricht Radar), 135.450 (above FL245)  
Remark: EURM\_CTR is an ATS unit of EuroCenter vACC.

### 2.2.3.3 Sector MURA S25

Lateral limits: Sector MURA (see Appendix A2)  
Vertical limits: FL305 – FL660  
Responsible ATS unit (in order of precedence):  
1. LOVV\_U\_CTR (Wien Radar) 131.350  
4. LOVV\_S\_CTR (Wien Radar) 133.800  
2. LOVV\_CTR (Wien Radar), 134.350  
3. EURM\_CTR (Maastricht Radar), 135.450 (above FL245)  
Remark: EURM\_CTR is an ATS unit of EuroCenter vACC

### 2.2.3.3 Sector W1.

Lateral limits: Sector W (see Appendix A2)  
Vertical limits: FL165 – FL305  
Responsible ATS unit (in order of precedence):  
1. LOVV\_W\_CTR (Wien Radar) 119.125  
2. LOVV\_S\_CTR (Wien Radar) 133.800  
1. LOVV\_CTR (Wien Radar), 134.350

2. EURM\_CTR (Maastricht Radar), 135.450 (above FL245)  
Remark: EURM\_CTR is an ATS unit of EuroCenter vACC.

#### 2.2.3.4 Sector W25

Lateral limits: Sector W (see Appendix A2)

Vertical limits: FL305 – FL660

Responsible ATS unit (in order of precedence):

1. LOVV\_U\_CTR (Wien Radar) 131.350
3. LOVV\_S\_CTR (Wien Radar) 133.800
2. LOVV\_CTR (Wien Radar), 134.350
3. EURM\_CTR (Maastricht Radar), 135.450 (above FL245)  
Remark: EURM\_CTR is an ATS unit of EuroCenter vACC.

### 2.3 **Delegation of the Responsibility for the Provision of ATS.**

#### 2.3.1 Delegation of ATS from Adria FIR to Wien FIR

##### 2.3.1.1 MURA Sector

The FIR LJLA airspace east of RUSE line (Appendix B1) is permanently delegated from LJLA to S FL125 - FL660.

(Note: For detailed coordinates refer to GNG (<http://www.gng.aero-nav.com/>)).

##### 2.3.1.2 DIPSA Sector

FIR LJLJ airspaces northwest of the DIPSA line are permanently delegated from LJLJ to WK 9500ft - FL165.

#### 2.3.2 Delegation of ATS from Wien FIR to Adria FIR

##### 2.3.2.1 Drau South Sector

The FIR LOVV airspace south of SOBOTH line (Appendix B1) is permanently delegated from LOVV to LJLA FL165 - FL660.

(Note: For detailed coordinates refer to GNG (<http://www.gng.aero-nav.com/>)).

##### 2.3.2.2 Klagenfurt Area

FIR LOVV airspace southwest of Klagenfurt line (Appendix B1) is permanently delegated from WK to LJLA FL125 - FL165

### 3

## Procedures for Coordinations.

### 3.1 Definitions

A release is an authorisation 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 LOVV\_CTR may also be used by LOVV\_X\_CTR or EURM\_X\_CTR.

### 3.2 General Conditions

Coordination of flights shall take place via the agreed coordination points (COP) or on any other route allowed by the SECSI FRA. COP that are not mentioned in this document but regularly filed by pilots shall be added within Euroscope to aid controllers but do not have to be published in this document. Should an aircraft by using a valid or non valid route avoid one of the restrictions, the controllers on duty shall ensure hand overs in greatest accordance with this LoA.

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.

### 3.3 IFR flights from Zagreb/ Ljubljana FIR to Wien FIR.

Airport concerned	COP	CFL	Special Conditions
<b>LOWW</b>	OBUTI	FL300	At FL, Note B
	LAPNA	FL310	At FL, Note B
<b>LOWK</b>	BERTA/ KLAGY/ DIPSA	FL120	At FL
<b>LOWG</b>	RADLY	↓ 9000ft (QNH LJLJ)	LoR FL120B (except MURA)
	Via OBUTI DCT MUREG/ GOLVA (MURA)	↓ FL130	LoR FL160B, contact WG on 119.3
<b>LOXZ</b>		FL300	At FL
<b>LOWL</b>	From LJLA	FL340	At FL
<b>LOWS</b>		FL340	At FL
<b>LOWI</b>		FL340	At FL
<b>LJLJ</b>	VALLU (Eastbound)	↑ FL290	At FL, LoR FL170A
	ARLON	↑ FL290	At FL, LoR FL130A
	GIMIX/ BERTA	↑ FL280	At FL, LoR FL170A
<b>LJMB</b>	GOLVA	6000ft QNH LJMB coordinated	At Altitude
	Except Graz Radar	FL280	At FL
<b>LDZA</b>	Via OBUTI (MURA)	↑ FL200	LoR FL130A, released for turns above FL160
	Except MURA Westbound	↑ FL320	Climbing, FL305A
	Except MURA Eastbound	↑ FL290	Climbing, FL170A
<b>LDPL/ LDRI/ LDRO</b>	Eastbound	↑ FL330	Climbing, FL305A, Note A
<b>EDDM</b>		FL340	At FL
<b>LHBP</b>	MURA Sector (eg IRLIX)	FL370	At FL, Note C
<b>LZIB/ LKTB</b>	Except MURA	FL330	At FL
	OBUTI (MURA)	FL300	At FL
<b>LIPZ</b>	Eastbound	FL330	At FL, Note A

Note A: Should an even level be required due to a westbound the track of the aircraft, an even level no greater than +1000ft shall be assigned without coordination.

Note B: LOWW arrivals shall expect NIGSI at FL180.)

Note C: LHBP arrivals shall expect GOTAR at FL330

### 3.4 IFR flights from Wien FIR to Zagreb/ Ljubljana FIR

Airport concerned	COP	CFL	Special Conditions
<b>LJLJ</b>	RADLY/ VALLU / LUMUS/ BERTA	↓ FL130	Descending, LoR FL200B
	VEKEN/ DEGUM	↓ FL170	Descending, LoR FL240B
<b>LJMB</b>	MUREG/ GOLVA	↓ 9000ft	Descending, LoR FL120B
		↓ FL170	Descending, LoR FL240B
<b>LDZA</b>	PETOV	↓ FL130	Descending LoR FL200B, released for turns within MURA sector
	Except MURA	FL290	At FL
<b>LDZD/ LQxx</b>		FL350	At FL, Note A
<b>LDPL</b>		↓ FL290	Descending
<b>LDRI/ LDLO</b>		↓ FL250	Descending
<b>LQxx</b>	Via MURA	FL310	At FL
<b>LOWW</b>	MURA	FL310	At FL
	RADLY	↑ FL320	LoR FL250A
<b>LOWG</b>	PETOV	↑ FL190	Climbing
<b>LOWK</b>	REKTI/ BERTA/ KLAGY (via LJLA)	↑ FL150	LoR FL130A
<b>LOWS/ LOWI/ LOWL</b>		↑ FL330	Climbing, LoR FL250A, Note A
<b>LOWG</b>	RADLY (via LJLA)	FL160	Climbing
<b>LIPZ</b>		FL320	At FL

Note A: Should an even level be required due to a westbound the track of the aircraft, an even level no greater than +1000ft shall be assigned without coordination.

### 3.5 VFR flights from Adria FIR to Wien FIR

For controlled VFR flights and VFR at night flights coordination, transfer of control and transfer of communication shall take place as for IFR flights. Uncontrolled VFR flights shall be transferred to the appropriate sector if in radio contact. If online, LOVV\_I\_CTR (Wien Information), 124.400, shall be the primary sector for uncontrolled VFR flights.



### 3.6 **VFR flights from Wien FIR to Adria FIR**

For controlled VFR flights and VFR at night flights coordination, transfer of control and transfer of communication shall take place as for IFR flights. Uncontrolled VFR flights shall be transferred to the appropriate sector if in radio contact.

## **4 Special Procedures**

### **4.1 Releases from LOVV\_CTR to ADR\_CTR**

#### **4.1.1 ADR\_CTR may clear flights**

- Direct to the next waypoint after the LoR within the SECSI FRA without coordination
- Not applicable when the remaining time until crossing LoR is less than 5 minutes or ADES is LOxx, EDDM or LZIB

#### **4.1.2 ADR\_CTR may turn flights**

- Planned via OBUTI for ARR LDZA within limits of MURA Sector
- Planned via RADLY within the limits of release area RADLY (Release Area RADLY (Appendix B)).

### **4.2 Releases from ADR\_CTR to LOVV\_CTR**

#### **4.2.1 LOVV\_CTR may clear flights**

- Direct to the next waypoint after the LoR within the SECSI FRA without coordination
- Not applicable when the remaining time until LoR is less than 5 minutes

#### **4.2.2 LOWG\_APP may turn flights**

- Planned via RADLY for ARR LOWG within 10nm of RADLY

#### **4.2.3 LOWG\_APP may descend flights**

- Planned via RADLY for ARR LOWG within 10nm OF RADLY TO 8000ft QNH LJJ

## **5 Transfer of Control and Transfer of Communications**

### **5.1 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 5.4 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 (5.4) is suspended.

### **5.2 Silent transfer of control**

The following values for silent transfer of control apply:

- If preceding aircraft is faster/same speed: 10nm
- Separation shall not be less than 10nm within 5 minutes flight time after LoR
- Horizontal Separation can be reduced to 5nm if coordinated.

Should ATC assign a speed, pilots are to be instructed to report the speed to the downstream station

### **5.3 Transfer of Communications**

Transfer of Communications shall take place no later than Transfer of Control.

### **5.4 Hand-Off procedure:**

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

1. The upstream sector sends the aircraft to the frequency of the downstream sector by voice or text
2. The upstream sector initiates a transfer via the appropriate function of the radar client..
3. Upon initial call the downstream sector assumes the flight via the appropriate function of the radar client.

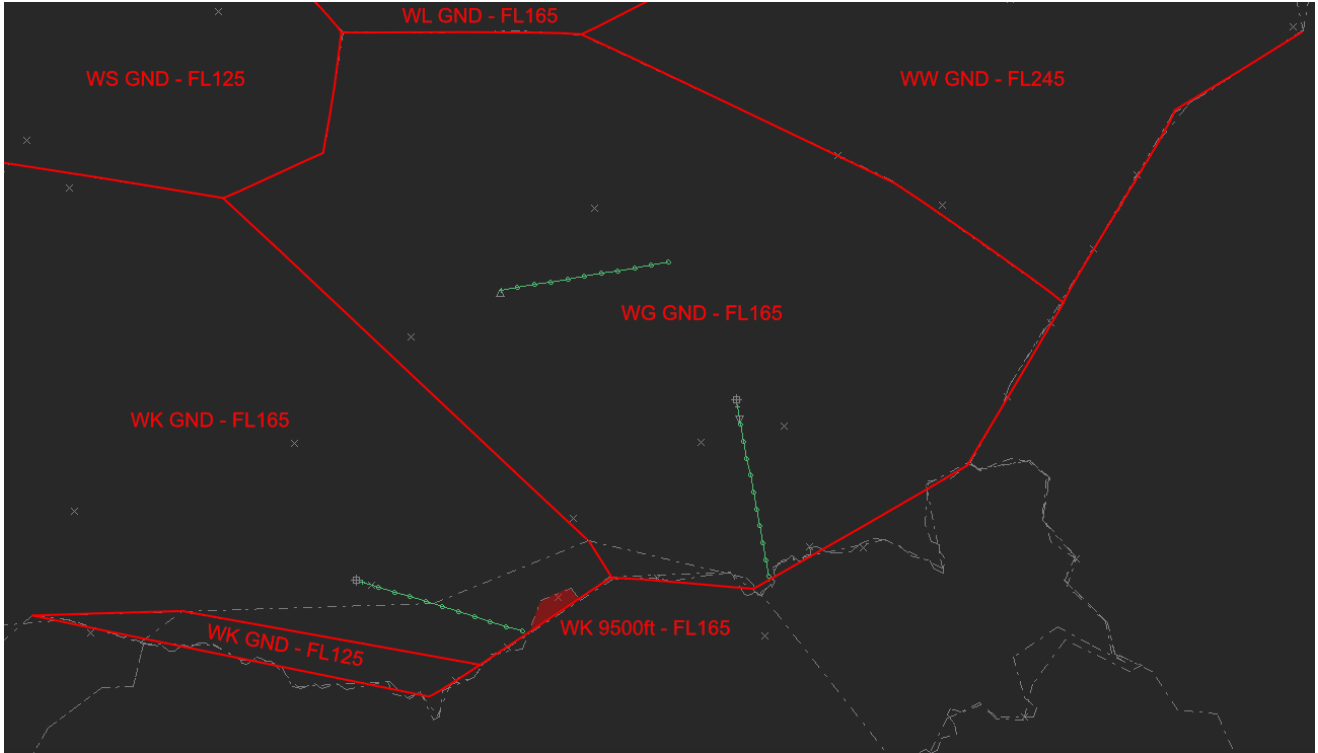
### **5.5 SSR Code Assignment**

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.

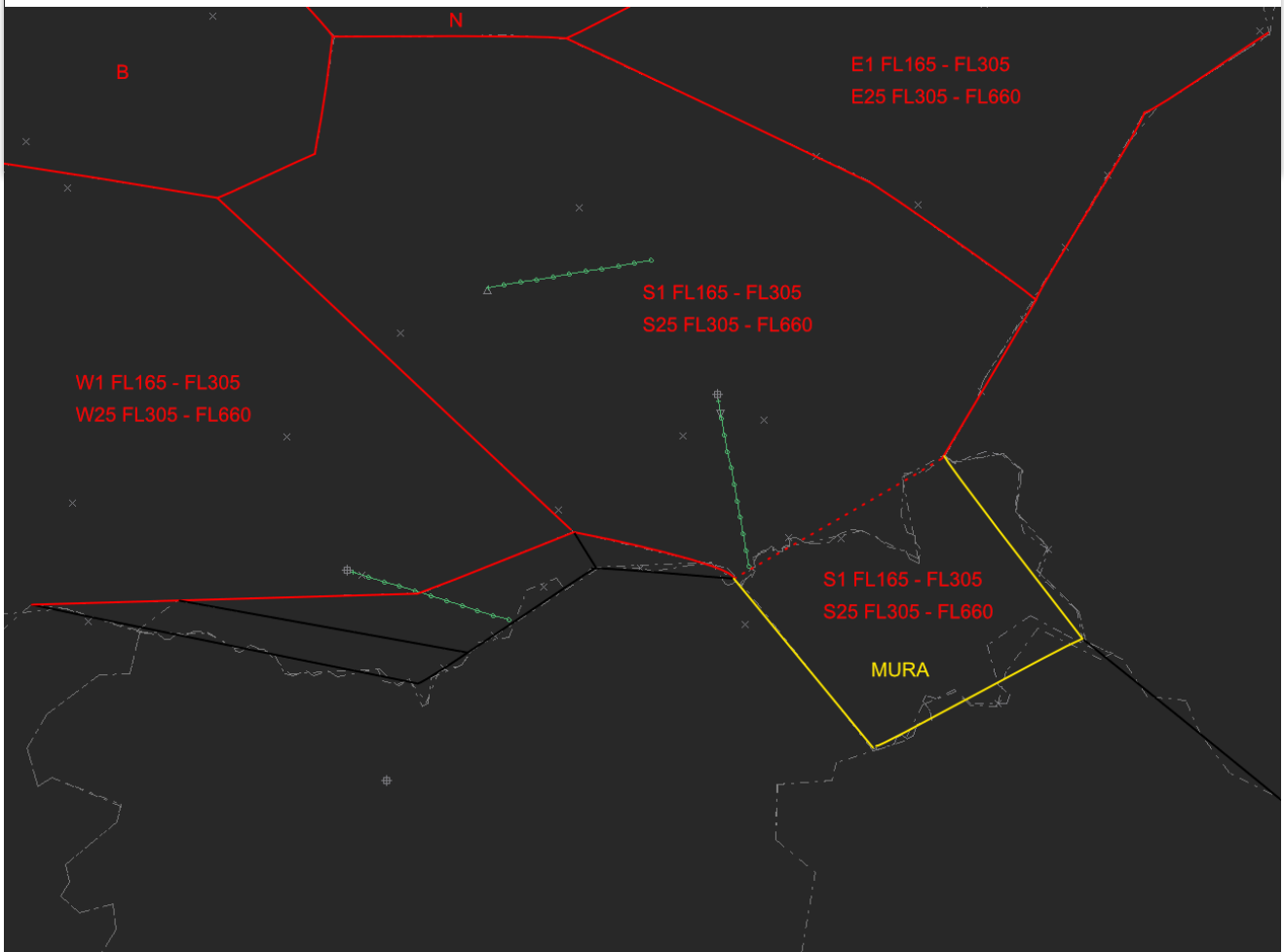
# Appendix A

## Sectorisation.

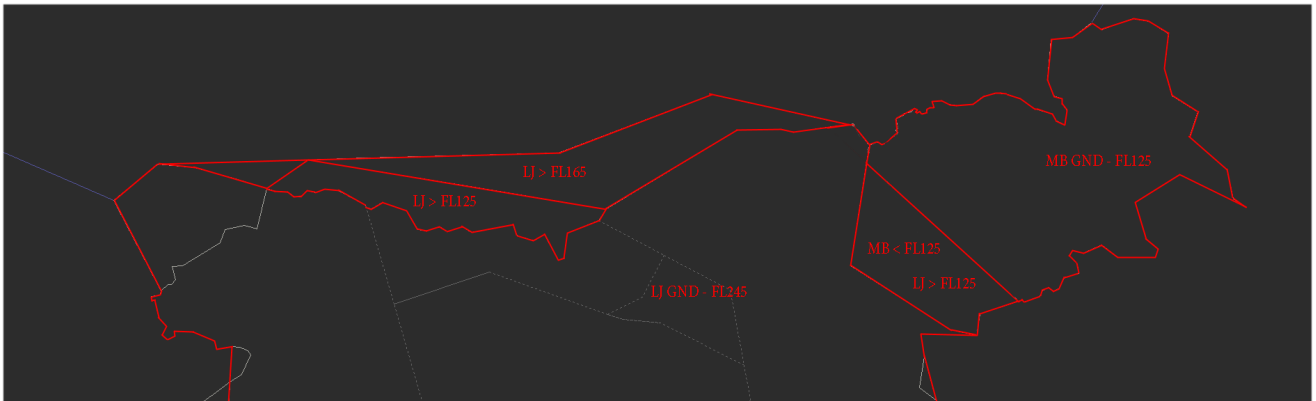
### A.1: LOVV LAU



### A. 2: LOVV ACC



### A.3: LJ Sector



## Appendix B

### Lines Definition.

#### B. 1:

