LETTER OF AGREEMENT

between

VACC-AUSTRIA **and** **VACC-CZ**

Wien FIR Praha FIR

Effective: 16th May 2024

1. General

1.1. Purpose

The purpose of this Letter of Agreement is to define the coordination procedures to be applied between Wien FIR and Praha 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 aviation 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 16th May 2024 and supersedes any earlier Letter of Agreement between Wien FIR and Praha FIR.

Ondřej Pěnička	Jakob Engelbrecht
Praha FIR, VACC Director	Wien FIR, deputy vACC Director
VACC Czech Republic	VACC Austria

2. Areas of Responsibility and Delegation of the Responsibility for the Provision of ATS

2.1. Areas of Responsibility

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

2.1.1. Wien FIR

Lateral limits: Wien FIR as described in AIP Austria (available for free at http://eaip.austrocontrol.at/)

Vertical limits: GND – FL660

2.1.2. Praha FIR

Lateral limits: Praha FIR as described in the AIP of the Czech Republic (available for free at http://lis.rlp.cz)

Vertical limits: GND – FL660

2.2. Sectorization

2.2.1. Wien FIR

Following sectorization is based on real data but is reduced and simplified for VATSIM usage. Lateral limits describe only the relevant part of each sector relevant for this LoA.

2.2.1.1. LOVV Sector E1

Lateral limits: clockwise west of DITIS - … - FIR BRATISLAVA-FIR WIEN (See Appendix D)

Vertical limits: FL245 – FL305

Responsible ATS unit (in order of precedence):

1. LOVV_E_CTR (Wien Radar), 135.625

2. LOVV_N_CTR (Wien Radar), 134.350

3. LOVV_CTR (Wien Radar), 132.600

4. LOVV_C_CTR (Wien Radar), 118.725

5. EURM_CTR (Maastricht Radar), 135.450

Remark: EURM_CTR is an ATS unit of EuroCenter vACC.

2.2.1.2. LOVV Sector E25 (Upper)

Lateral limits: clockwise west of DITIS - … - FIR BRATISLAVA-FIR WIEN (See Appendix D)

Vertical limits: FL305 - FL660

Responsible ATS unit (in order of precedence):

1. LOVV_U_CTR (Wien Radar), 131.350

2. LOVV_E_CTR (Wien Radar), 135.625

3. LOVV_N_CTR (Wien Radar), 134.350

4. LOVV_CTR (Wien Radar), 132.600

5. LOVV_C_CTR (Wien Radar), 118.725

6. EURM_CTR (Maastricht Radar), 135.450Remark: EURM_CTR is an ATS unit of EuroCenter vACC.

2.2.1.3. LOVV Sector N1

Lateral limits: clockwise FIR MÜNCHEN-FIR WIEN - north of BUDEX - west of DITIS - MASUR

(See Appendix D)

Vertical limits: FL165 – FL305

Responsible ATS unit (in order of precedence):

1. LOVV_F_CTR (Wien Radar), 128.700

2. LOVV_N_CTR (Wien Radar), 134.350

3. LOVV_E_CTR (Wien Radar), 135.625

4. LOVV_CTR (Wien Radar), 132.600

5. LOVV_C_CTR (Wien Radar), 118.725

6. EURM_CTR (Maastricht Radar), 135.450 (above FL245)

Remark: EURM_CTR is an ATS unit of EuroCenter vACC.

2.2.1.4. LOVV Sector N25 (Upper)

Lateral limits: clockwise FIR MÜNCHEN-FIR WIEN - north of BUDEX - west of DITIS - MASUR

(See Appendix D)

Vertical limits: FL305 - FL660

Responsible ATS unit (in order of precedence):

1. LOVV_U_CTR (Wien Radar) 131.350

2. LOVV_N_CTR (Wien Radar), 134.350

3. LOVV_E_CTR (Wien Radar), 135.625

4. LOVV_CTR (Wien Radar), 132.600

5. LOVV_C_CTR (Wien Radar), 118.725

6. EURM_CTR (Maastricht Radar), 135.450 (above FL245)

Remark: EURM_CTR is an ATS unit of EuroCenter vACC.

2.2.1.5. TMA LOWL

Lateral limits:

A. (above FL125) clockwise FIR MÜNCHEN-FIR WIEN - north of BUDEX - west of DITIS - MASUR (includes BUDEX area, see Appendix D)

B. (below FL125) clockwise FIR MÜNCHEN-FIR WIEN - FIR PRAHA-FIR WIEN - west of DITIS (excluding BUDEX area, see Appendix D)

Vertical limits: GND - FL165

Responsible ATS unit (in order of precedence):

1. LOWL_APP (Linz Radar) 129.625

2. LOVV_N_APP (Wien Radar) 123.725

3. LOVV_L_CTR (Wien Radar) 129.200

4. LOVV_N_CTR (Wien Radar), 134.350

5. LOVV_E_CTR (Wien Radar), 135.625

6. LOVV_CTR (Wien Radar), 132.600

7. LOVV_C_CTR (Wien Radar), 118.725

2.2.1.6. TMA LOWW N (NERDU) Sector

Lateral limits: clockwise west of DITIS – NAVTI/ 340 Radial WGM (See Appendix D, E)

Vertical limits: GND – FL245

Responsible ATS unit (in order of precedence):

1. LOWW_N_APP (Wien Radar), 118.775

2. LOWW_M_APP (Wien Radar), 125.175

3. LOWW_APP (Wien Radar), 134.675

4. LOWW_P_APP (Wien Radar), 129.050

5. LOVV_L_CTR (Wien Radar), 129.200

6. LOVV_E_CTR (Wien Radar), 135.625

7. LOVV_N_CTR (Wien Radar), 134.350

8. LOVV_CTR (Wien Radar), 132.600

9. LOVV_C_CTR (Wien Radar), 118.725

2.2.1.7. TMA LOWW M (MABOD) Sector

Lateral limits: clockwise west of NAVTI/ 340 Radial WGM - … - FIR BRATISLAVA-FIR WIEN (See Appendix D, E)

Vertical limits: GND - FL245

Responsible ATS unit (in order of precedence):

1. LOWW_M_APP (Wien Radar), 125.175

2. LOWW_P_APP (Wien Radar), 129.050

3. LOWW_N_APP (Wien Radar), 118.775

4. LOWW_APP (Wien Radar), 134.675

5. LOVV_L_CTR (Wien Radar), 129.200

6. LOVV_E_CTR (Wien Radar), 135.625

7. LOVV_N_CTR (Wien Radar), 134.350

8. LOVV_CTR (Wien Radar), 132.600

9. LOVV_C_CTR (Wien Radar), 118.725

2.2.2. Praha FIR

Following sectorization is based on real data but is reduced and simplified for VATSIM usage. Lateral limits describe only the relevant part of each sector for this LoA.

2.2.2.1. LKAA Sector UPPER

Lateral limits: whole area of LKAA (Czech Republic), (See Appendix A) with exception of BUDEX area

Vertical limits: FL305 – FL660

Responsible ATS unit (in order of precedence):

1. LKAA_U_CTR (Praha Radar), 133.420
2. LKAA_W_CTR (Praha Radar), 120.270 (only above LKAA Sector WEST if LKAA_CTR online)
3. LKAA_N_CTR (Praha Radar), 127.820 (only above LKAA Sector NORTH if LKAA_CTR online)
4. LKAA_CTR (Praha Radar), 127.120
5. EURE_FSS (Eurocontrol), 135.300
6. EURM_FSS (Eurocontrol), 135.450

Remark: EURE_FSS and EURM_FSS are ATS units of EuroCenter vACC.

2.2.2.2. LKAA Sector SOUTH

Lateral limits: clockwise FIR BRATISLAVA-FIR WIEN border – LEDVA - … - PISAM - west of PISAM (See Appendix B)

Vertical limits: FL125 – FL305

Responsible ATS unit (in order of precedence):

1. LKAA_CTR (Praha Radar), 127.120
2. LKAA_W_CTR (Praha Radar), 120.270
3. LKAA_N_CTR (Praha Radar), 127,820
4. EURE_FSS (Eurocontrol), 135.300 (above FL245)
5. EURM_FSS (Eurocontrol), 135.450 (above FL245)

Remark: EURE_FSS and EURM_FSS are ATS units of EuroCenter vACC.

2.2.2.3. LKAA Sector WEST

Lateral limits: clockwise west of PISAM – LUPEV - ABUDO - FIR MÜNCHEN-FIR WIEN border (See Appendix B)

Vertical limits: FL125 – FL305

Responsible ATS unit (in order of precedence):

1. LKAA_W_CTR (Praha Radar), 120.270
2. LKAA_CTR (Praha Radar), 127.120
3. LKAA_N_CTR (Praha Radar), 127.820
4. EURE_FSS (Eurocontrol), 135.300 (above FL245)
5. EURM_FSS (Eurocontrol), 135.450 (above FL245)

Remark: EURE_FSS and EURM_FSS are ATS units of EuroCenter vACC.

2.2.2.4. BRNO Sector SUPERLOW

Lateral limits: clockwise FIR BRATISLAVA-FIR WIEN border – LEDVA - … - PISAM - west of PISAM (See Appendix C)

Vertical limits: GND – FL125

Responsible ATS unit (in order of precedence):

1. LKTB_APP (Praha Radar), 127.350
2. LKMT_APP (Praha Radar), 118.370
3. LKAA_CTR (Praha Radar), 127.120
4. LKAA_W_CTR (Praha Radar), 120.270
5. LKAA_N_CTR (Praha Radar), 127.820

2.2.2.5. KARLOVY VARY Sector SUPERLOW

Lateral limits: clockwise west of PISAM – GIMBO - ADLET - FIR MÜNCHEN-FIR WIEN border (See Appendix C) – caution, this sector is INCLUDING the BUDEX area

Vertical limits: GND – FL125

Responsible ATS unit (in order of precedence):

1. LKKV_APP (Praha Radar), 118.650
2. LKTB_APP (Praha Radar), 127.350
3. LKMT_APP (Praha Radar), 118.370
4. LKAA_W_CTR (Praha Radar), 120.270
5. LKAA_CTR (Praha Radar), 127.120
6. LKAA_N_CTR (Praha Radar), 127.820

2.2.2.6. TMA Brno

Lateral limits: as per AIP Czech Republic, approx. west of LEDVA to west of MIKOV (See Appendix B)

Vertical limits: FL065 – FL095

Responsible ATS unit (in order of precedence):

1. LKTB_APP (Praha Radar), 127.350
2. LKMT_APP (Praha Radar), 118.370
3. LKAA_CTR (Praha Radar), 127.120
4. LKAA_W_CTR (Praha Radar), 120.270
5. LKAA_N_CTR (Praha Radar), 127.820

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

2.3.1. Delegation of ATS from Praha FIR to Wien FIR

2.3.1.1 BUDEX Area

The airspace north of the Austrian border to BUDEX (see Appendix F) is permanently delegated from LKAA to LOVV between FL125 and FL660.

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

Procedures

3. 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.

Traffic overflying LOVV and/or LKAA shall be handed off on a valid ATS/FRA route at a valid RFL using the semi-circular cruising level rule (even/odd). Direct routings shall be coordinated if not covered by any specific release (in tag/voice/per LOA) or the general release described in 4.4 .

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 of 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, 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.

3.1. 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.

3.2. IFR flights from Wien FIR to Praha FIR

Concerned Airport	COP	Cleared FL	Conditions
↑LOWW	LEDVA	230/170A	Climbing, released for FL240
	DITIS	↑300/240A	Climbing
	LANUX	↑300/200A	Climbing
↑LOWW (Dest LKPR)		180	At level
↑LZIB	DITIS	↑340/310A	Climbing
↑LOWL	UPEGU	160	At level
↑LOWS	UPEGU	300/250A	Climbing
↓LKPR, LKVO, LKKB, LKPD	BUDEX	250	At level
		300	At level
↓LKTB, LKKU	LEDVA	10000ft QNH LOWW/FL120B	Descending
↓LKMT		FL270	At level
↓LKCS		8000ft QNH LOWL/FL120B	Descending
↓EPKK, EPWR, EPKT	LEDVA	330	At level
↓EDDC, EDDP		340	At level

3.3. IFR flights from Praha FIR to Wien FIR

Concerned Airport	COP	Cleared FL	Conditions
↑LKPR, LKPD	PISAM/ DITIS	↑290/250A	Climbing, released for FL300
↑LKTB, LKKU	MIKOV	120	At level
↑LKMT		↑300/250A	Climbing
↓LOWW	BUDEX	↓310/340B	Descending, handover to N1 sector
	MIKOV	↓130/170B	Descending, released for turns after transfer of communication
	LANUX	150	At level
↓LZIB		230	At level
	BUDEX	330	At level
↓LOWL	LUPEV	↓170/210B	At level
↓LOWS, LOWK, LJMB	LANUX	330	At level
↓LOWL, LOWG		310	At level
↓LOWS, LOWK, LJMB	MIKOV	340	At level
↓LOWL, LOWG		330	At level

3.4. VFR flights from Wien FIR to Praha FIR

For controlled VFR flights and VFR 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, LKAA_I_CTR (Praha Information) 126.100, shall be the primary sector for uncontrolled VFR flights.

3.5. VFR flights from Praha FIR to Wien FIR

For controlled VFR flights and VFR 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. TFI, LOWW_I_APP (Wien Information) 118.525, shall be the primary sector for uncontrolled VFR flights in the TMA LOWW.

4. Special Procedures

4.1. Releases from LKAA to LOVV

4.1.1. LOVV may turn flights ARR LOWW via MIKOV after transfer of communication

4.1.2. LOVV may climb LKPR/ LKPD departures via PISAM/DITIS to FL300

4.2. Releases from LOVV to LKAA

4.2.1. LKAA may clear flights ARR LOWL via LUPEV to PETEN

4.2.2. LKAA may climb flights DEP LOWW via LEDVA to FL240

4.3. LOWW Arrivals - BUDEX Procedure

4.3.1. LOVV_F_CTR covers only the ACC-N1 Sector. It has priority over any station that would cover N1 otherwise.

4.3.2. LOWW arrivals via BUDEX shall be handed over to the station covering the N1 sector cleared FL310, FL340 or below at boarder.

4.4. Traffic from Praha FIR to Wien FIR / Wien FIR to Praha FIR

4.4.1. Traffic may generally be cleared by both parties to the next published waypoint after the COP, provided that the original next sector of the accepting unit remains the same.

Note: 1 LOxx and LKxx arrivals are exempted from this procedure

Note 2: After coordination between both parties, specific flights or all flights in general can be suspended from this procedure for a limited period of time.

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

Transfer of Radar Identification may be effected without systematic use of bi-directional speech facilities provided the minimum distance between successive aircraft about to be transferred has one of the following values:

a) 10 NM if the succeeding aircraft is not faster

b) if the succeeding aircraft is faster: 20 NM and Mach number differing by not more than M 0.05 at FL250 or above, or 20 kts IAS below FL250 are assigned to aircraft concerned; 30 NM and Mach number differing by not more than M 0.1 at FL250 or above, or 40 kts IAS below FL250 are assigned to aircraft concerned

5.3. Transfer of Communications

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

5.4. Hand-Off procedure

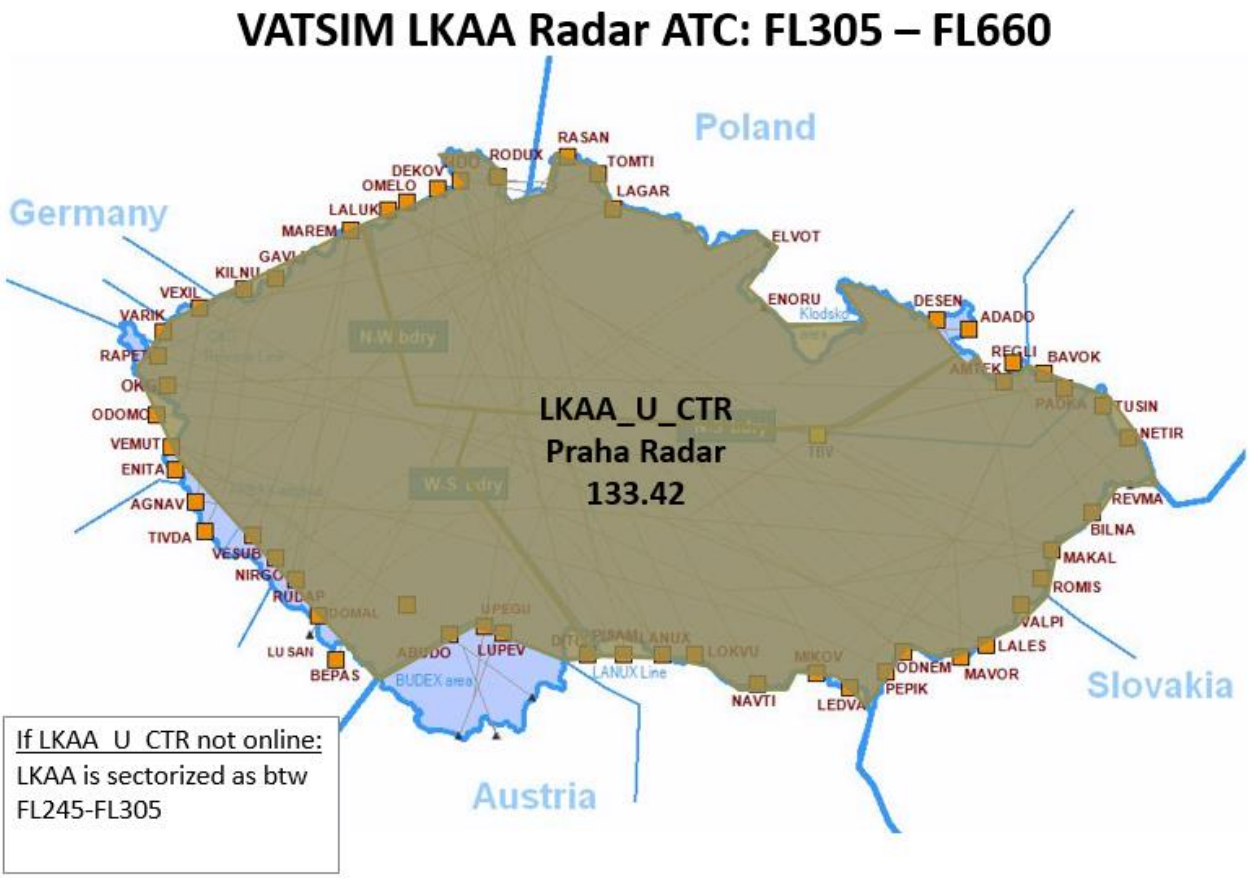
Unless otherwise agreed between stations online, the following hand-off procedure shall apply:

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

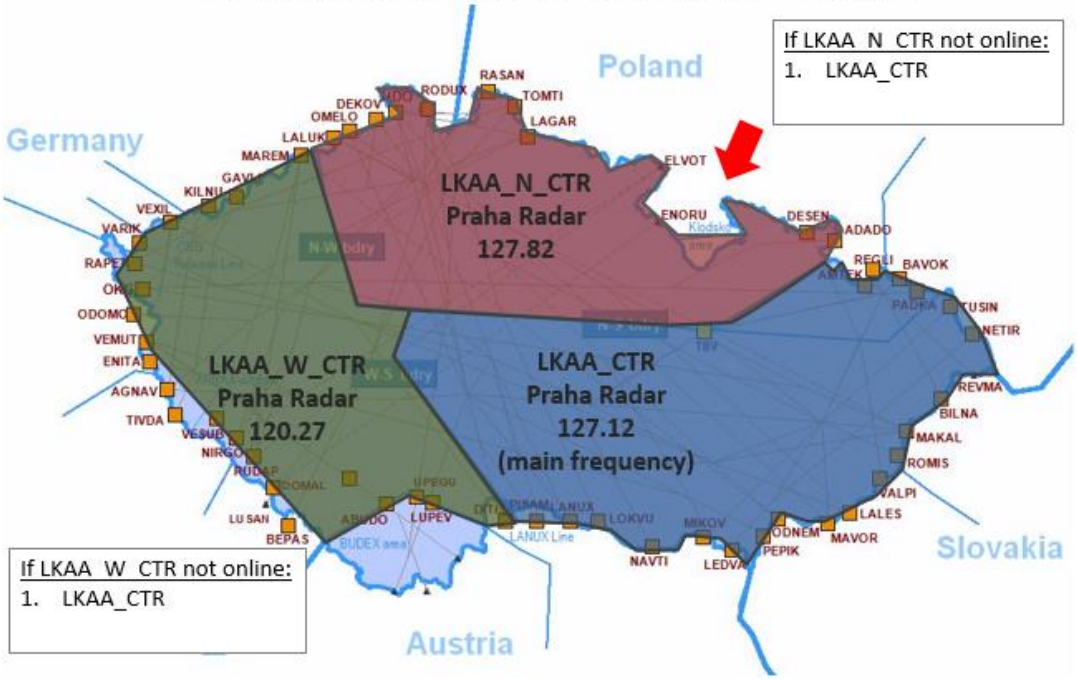
Both ATS units shall transfer flights with verified discrete SSR codes. Any change of SSR code by the accepting ATS unit may only take place after the transfer of control point. SSR Code 1000 may be used for sufficiently equipped IFR flights within Mode-S zone.

6. Appendix A

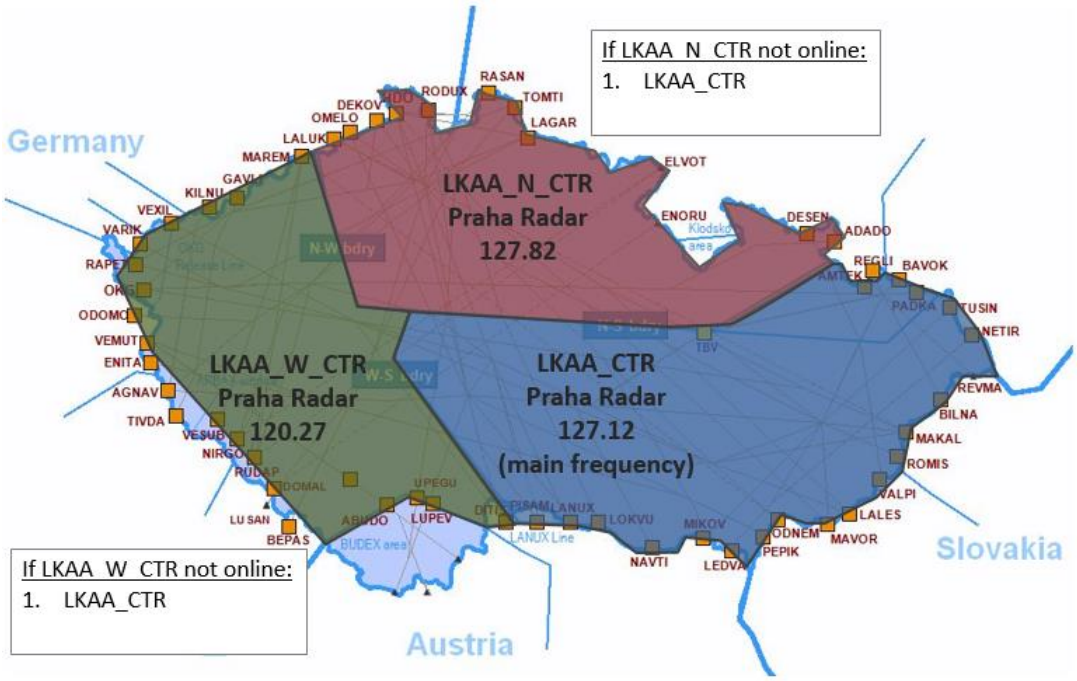

VATSIM LKAA Radar ATC: FL305 – FL660
Poland
Germany
Slovakia
Austria
LKAA_U_CTR
Praha Radar
133.42
RASAN
RODUX
TOMTI
LAGAR
DEKOV
OMELO
LALUK
MAREM
KILNU
VEXIL
VARIK
RAPET
ODOMO
VEMUT
ENITA
AGNAV
TIVDA
VESUB
NIRGO
ELVOT
ENORU
DESEN
ADADO
REGLI
BAVOK
TUSIN
NETIR
REVMA
BILNA
MAKAL
ROMIS
VALPI
LALES
MAVOR
ODNEM
PEPIK
LEDVA
NAVTI
LOKVU
MEKOV
LANUX
LANUX Line
LUPEV
BEPAS
LU SAN
BUDEX area
If LKAA_U_CTR not online:
LKAA is sectorized as btw FL245-FL305

7. Appendix B

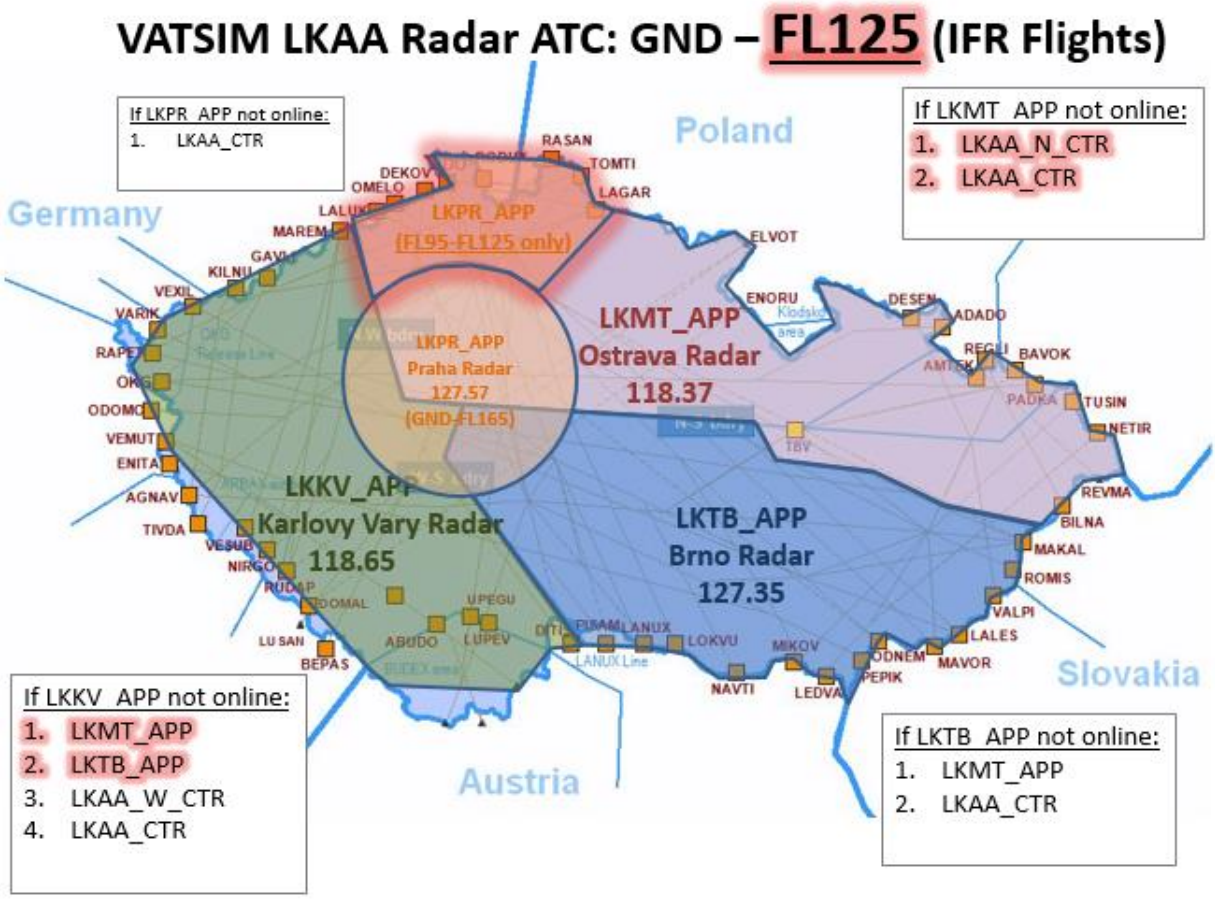
VATSIM LKAA Radar ATC: FL245 – FL305



VATSIM LKAA Radar ATC: FL125 – FL245



8. Appendix C


VATSIM LKAA Radar ATC: GND – FL125 (IFR Flights)
If LKPR_APP not online:
1. LKAA_CTR
If LKMT_APP not online:
1. LKAA_N_CTR
2. LKAA_CTR
Poland
Germany
Slovakia
Austria
LKPR_APP
(FL95-FL125 only)
LKPR_APP
Praha Radar
127.57
(GND-FL165)
LKMT_APP
Ostrava Radar
118.37
LKKV_APP
Karlovy Vary Radar
118.65
LKTB_APP
Brno Radar
127.35
RASAN
TOMTI
LAGAR
DEKOV
OMELO
LALUX
MAREM
GAVLI
KILNU
VEXIL
VARIK
RAPEL
OKG
ODOMO
VEMUT
ENITA
AGNAV
TIVDA
VESUB
NIRGO
RUDAP
DOMAL
UPEGU
LUSAN
ABUDO
LUPEV
BEPAS
ELVOT
ENORU
DESEM
ADADO
REGUL
BAVOK
PADKA
TUSIN
NETIR
REVMA
BILNA
MAKAL
ROMIS
VALPI
LALES
MAVOR
ODNEM
PEPIK
LEDVA
NAVTI
MIKOV
LOKVU
LANUX
PUMAM
LANUX Line
If LKKV_APP not online:
1. LKMT_APP
2. LKTB_APP
3. LKAA_W_CTR
4. LKAA_CTR
If LKTB_APP not online:
1. LKMT_APP
2. LKAA_CTR

9. Appendix D - LOVV ACC Sectors and TMAs

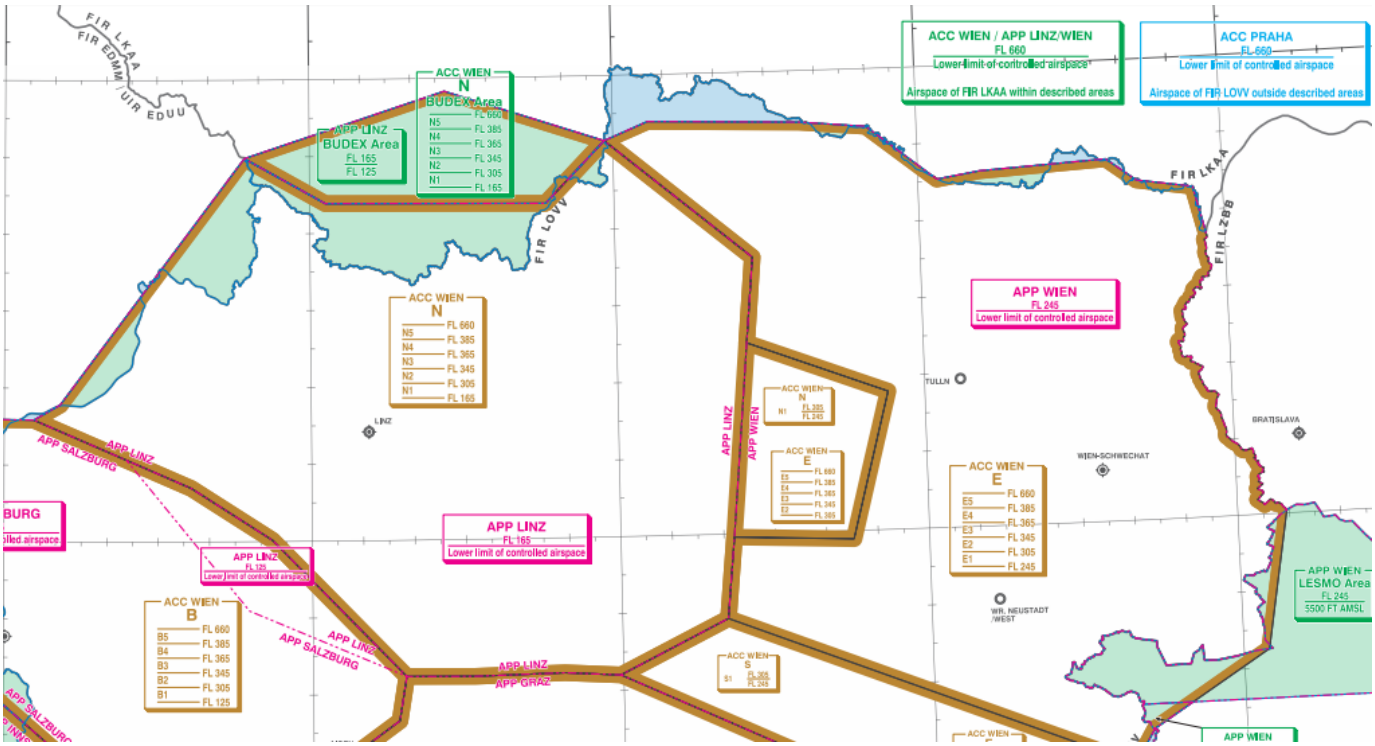
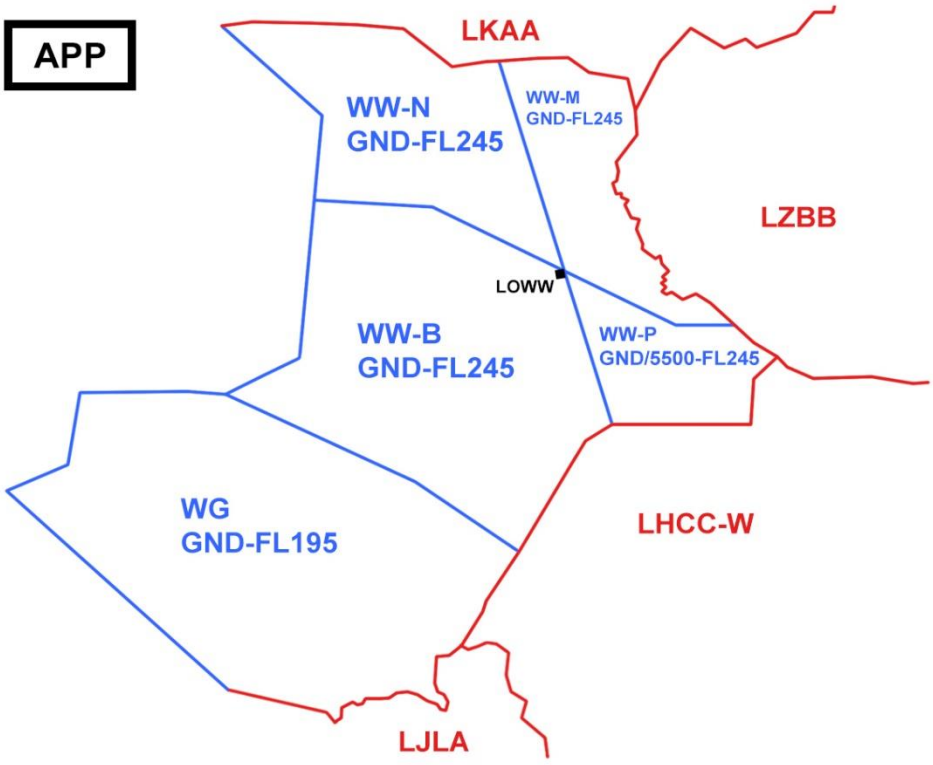


Chart available: https://charts.vacc-austria.org/LOVV/LOVV_Enroute_ATC%20Sectors_18042024.pdf

10. Appendix E- LOWW TMA Split



11. Appendix E- BUDEX Area