



LETTER OF AGREEMENT

between

vACC Germany
München ACC
Karlsruhe UAC

and

vACC Austria
Wien ACC
LAUs

Effective: April 20, 2023 (AIRAC 2304)

1 General.

1.1 Purpose.

The purpose of this Letter of Agreement is to define the coordination to be applied between München ACC, Karlsruhe UAC, Wien ACC and LAUs 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 April 20, 2023 (AIRAC 2304) and supersedes previous version, dated August 11, 2022 (AIRAC2208), of the Letter of Agreement between München FIR and Wien FIR.

1.4 Revision control.

Revision	Date	Author
1.X	30.12.2021	Various authors
2.0	11.08.2022	Jannik Vogel, Samy Greve, Tobias Thanner, Jakob Engelbrecht
3.0	20.04.2023	Jannik Vogel, Jakob Engelbrecht

2 Areas of Responsibility and Sectorization.

2.1 Areas of Responsibility.

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

2.1.1 München ACC.

Lateral limits: München FIR and Rhein UIR as described in AIP Germany

Vertical limits: GND – FL245 (München FIR)
FL245 – FL315 (Rhein UIR)

2.1.2 Rhein UAC.

Lateral limits: Rhein UIR as described in AIP Germany

Vertical limits: FL315 – FL660

2.1.3 Wien ACC and LAUs.

Lateral limits: Wien FIR as described in AIP Austria

Vertical limits: GND – FL660

2.2 Sectorization.

Sector chart EDMM: vats.im/sectors-edmm

Sector chart LOVV: vats.im/sectors-lovv

For detailed coordinates refer to GNG, AIP Germany ENR 2.1 or AIP Austria ENR 2.2.

2.3 Delegation of the Responsibility for the Provision of ATS.

2.3.1 Delegation of ATS from Wien ACC/LAUs to München ACC.

2.3.1.1 ROCKY Line.

Generally, the airspace west of ROCKY Line (see Appendix C) is permanently delegated from Wien FIR to München FIR, except the AoR Innsbruck.

2.3.2 Delegation of ATS from München ACC to Wien ACC/LAUs.

2.3.2.1 ROCKY Line.

Generally, the airspace east of ROCKY Line (see Appendix C) is permanently delegated from München FIR to Wien FIR.

2.3.2.2 Königssee Area.

The airspace overhead Königssee Area (see Appendix C) is permanently delegated from München FIR to Wien FIR.

Vertical limits: GND – FL125

3 Procedures for Coordination.

3.1 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 EDMM_CTR may also be used by EDMM_X_CTR or EDUU_X_CTR.

3.2 Abbreviations.

ACC	Area Control Center	kts	Knots
AD	Aerodrome	LAU	Local Approach Unit
ADEP	Aerodrome of Departure	LoA	Letter of Agreement
ADES	Aerodrome of Destination	LoR	Line of Responsibility
AoR	Area of Responsibility	NM	Nautical Mile
APP	Approach Facility	NVFR	Night Visual Flight Rules
ATS	Air Traffic Services	RFL	Requested Flight Level
COP	Coordination Point	Rlsd	Released
CTR	Center/Enroute Facility	SSR	Secondary Surveillance Radar
FIR	Flight Information Region	TMA	Terminal Maneuvring Area
FIS	Flight Information Service	UAC	Upper Area Control Center
FL	Flight Level	VFR	Visual Flight Rules
GND	Ground	WEF	With Effect From
GNG	Global Nav Generator (gng.aero-nav.com)		

3.3 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.

FLxxxA means “climbing and above specified FL”, FLxxxB means “descending and below specified FL”.

3.4 IFR flights from München ACC to Wien ACC/LAUs.

3.4.1 Arrivals.

Arrival AD	COP	Level Allocation	Special Conditions	FROM Sector	TO Sector
LOWI	BADVI TULSI	↓FL130	Clear of Wien ACC sector	TEG	APP-WI
	MADEB XEBIX	↓FL150		ZUG	
LOWL	AKIMA DEXIT	FL160		EGG	APP-WL
	INPUL	FL270		TRU	ACC-B
LOWS	TITIG TRAUN MEBEK	↓8000 ft	QNH EDDM	DMSL	APP-WS
	UNKEN	FL130	(*1)	TRU	APP-WS
	BIBAG	FL100	(*2)	EGG	APP-WS

(*1) Note: 10NM west of UNKEN at FL. Passing ROCKY Line at FL120B will be assured by LOWS_APP.

(*2) Note: Released for descent to lowest 7000 ft and turns after passing BIBAG.

3.4.2 Departures.

Departure AD	COP	Level Allocation	Special Conditions	FROM Sector	TO Sector
EDDM	AKIMA	↑FL290	ROCKY Line FL170A	EGG	ACC-N
	MEBEK	↑FL190	ROCKY Line FL100A	DMSH	ACC-B
	RADIZ LATLO MODSA	↑FL270	ROCKY Line FL180A	TRU	ACC-W
EDMA EDMO	RADIZ LATLO MODSA	↑FL270	ROCKY Line FL180A		
EDNY EDJA LSZR	BIRGI UMVEG GEDSO	FL310		TEG	ACC-W
EDDN	LAMSI	FL310		EGG	ACC-N

3.5 IFR flights from Karlsruhe UAC to Wien ACC.

3.5.1 Arrivals.

Arrival AD	AoR Boundary / COP	Level Allocation	Special Conditions	FROM Sector	TO Sector
LOWG, LOWK, LOXZ, LJLJ, LIPQ	ACC Wien W	FL330		ALP/CHI	ACC-W
LDZA, LDRI, LJMB, LIP* (except LIPQ)		FL350			
LOWG, LOWK, LOXZ	ACC Wien B	FL330		CHI	ACC-B
LDZA, LJMB		FL350			
LOWG, LOWK, LOXZ	ACC Wien N	FL330		DON	ACC-N
LOWW	ACC Wien N	FL330			
	ACC Wien B				
	ACC Wien W	FL350		ALP/CHI	ACC-W

3.5.2 Departures.

Departure AD	AoR Boundary / COP	Level Allocation	Special Conditions	FROM Sector	TO Sector
LSZH, LSZS, LSMD	ACC Wien W	Min. ↑FL330	LoR FL310A	ALP	ACC-W
		Any higher FL after REV	At FL		

3.6 IFR flights from Wien ACC/LAUs to München ACC.

3.6.1 Arrivals.

Arrival AD	COP	Level Allocation	Special Conditions	FROM Sector	TO Sector
EDDM	AMADI	FL130	(*1)	ACC-B	DMSH
	REDBU	FL140			
EDDN	SIMBA SUBEN	FL300		ACC-N	EGG
EDMA EDMO	TRAUN TITIG	FL150		ACC-B	DMSH
EDDS	TITIG KIRDI	FL300			TRU
EDNY EDJA LSZR	TRAUN	FL300		ACC-W	TEG
	ERKIR	FL260			
LSZS	GEDSO	FL300		ACC-W	TEG
Praha FIR (LK*)	DEXIT LAMSI	FL300		ACC-N	EGG

(*1) Note: If traffic permits and with approval of EDDM_APP entry condition may be altered to "descending, FL190 or below at COP". ACC Wien shall assure separation between involved flights until passing NAPSA.

3.6.2 Departures.

Departure AD	COP	Level Allocation	Special Conditions	FROM Sector	TO Sector
LOWI	ALL SIDs	↑FL160		APP-WI	TRU/TEG/ZUG
LOWL	RENKA	↑FL160		APP-WL	EGG
	LAMSI	↑FL160			
	SUBEN	↑FL140	Rlsd ↑FL160 20NM from SUBEN		
LOWS	TRAUN	↑FL120		APP-WS	TRU
	SIMBA				EGG
	TITIG	↑FL90	Rlsd ↑FL120		DMSL

3.7 **IFR flights from Wien ACC to Karlsruhe UAC.**

3.7.1 Arrivals.

Arrival AD	COP	Level Allocation	Special Conditions	FROM Sector	TO Sector
EDDS, LSMD, LSZS	ERKIR	FL340		ACC-W	CHI
EDDF	SIMBA	FL360		ACC-B	DON
	SUBEN		ACC-N		
EDDR, EDFM, EDSB	TITIG KIRDI	FL340		ACC-B	CHI
LSZH	ERKIR	FL360		ACC-W	
LKPR	SIMBA	FL320		ACC-B	DON

3.8 VFR flights from München FIR to Wien FIR.

For controlled VFR flights and NVFR flights above 2500 feet GND 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.

3.9 VFR flights from Wien FIR to München FIR.

For controlled VFR flights and NVFR flights above 2500 feet GND 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, EDXX_MM_CTR (Langen Information), 120.650, shall be the primary sector for uncontrolled VFR flights.

4 Special Procedures.

4.1 Releases from Wien ACC to München ACC and Karlsruhe UAC.

4.1.1 München ACC / Karlsruhe UAC may clear flight:

- from/abeam SBG VOR direct to any position within AoR München.
- direct STEIN / SASAL / TOVKA / MAREG / ABLOM entering via LOVVN sectors.

4.1.2 München ACC / Karlsruhe UAC may turn flights:

- planned via SUBEN / RENKA / DEXIT 10NM east of ROCKY Line.

4.2 Releases from München ACC and Karlsruhe UAC to Wien ACC.

4.2.1 Wien ACC may clear flights:

- ADES EDDS planned via TITIG / KIRDI with RFL FL200A direct EBEDA.

4.2.2 Wien ACC may turn flights:

- planned via L725 to the right when passing UNKEN.
- planned via LATLO / RADIZ / MODSA after passing L725.

4.3 Traffic from München ACC and Karlsruhe UAC / Wien ACC to Wien ACC / München ACC and Karlsruhe UAC.

4.3.1 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: Arrivals EDDM, EDM* and LOW* 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.

4.3.2 Additional to the procedure described in 4.3.1, the following waypoints may be cleared without individual coordination provided flight is entering the accepting sector above FL320:

LOVV → EDUU: RUDNO, MAMOR, AKINI, KPT

EDUU → LOVV: MASUR, SASAL, STEIN, GOTAR, NEMEK, GIMIX

Note 1: Arrivals EDDF and LOW* 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.

4.4 LOWI Procedures.

4.4.1 Release Line Innsbruck.

APP Innsbruck may turn and descent flights ADES LOWI passing the Release Line Innsbruck. Turns greater than 45° are permitted, as long as traffic remains south of Release Line Innsbruck and is below FL165.

Separation for arriving and departing traffic south of Release Line Innsbruck shall be provided by APP Innsbruck.

APP Innsbruck may use a 3 NM surveillance separation minimum south of Release Line Innsbruck, as long as all aircraft concerned are on the frequency of APP Innsbruck.

4.4.2 LAU Innsbruck may clear LOWI Departures:

- direct KOGOL.
- with ADES EDDM direct to DISUN.
- via KPT direct KPT.

4.4.3 München ACC may clear LOWI Arrivals:

- planned via ELMEM direct ELMEM and arrivals planned via RTT direct RTT.

4.4.4 Additional LOWI procedures for high traffic will be published in a separate Appendix C to this LoA.

4.5 LOWS Procedures.

4.5.1 Release Line Salzburg.

APP Salzburg may turn and descent flight ADES LOWS passing the Release Line Salzburg.

4.5.2 LAU Salzburg may clear flights:

- via TRAUN direct to ATLLOL.
- Via SIMBA direct to NENUM / GONBA / LALIN.

4.5.3 München APP/ACC may clear Arrivals LOWS:

- planned via L725 from any position south of L725 direct SBG VOR.

4.6 EDDM Procedures.

4.6.1 Release Line München.

After coordination with **APP Salzburg**, APP München may descent and turn flights ADES EDDM EDMA EDMO northwest of Release Line München between FL95 and FL125. APP München shall be responsible for separation of these flights to all concerned traffic within TMA LOWS.

4.6.2 Arrivals/Departures EDDM.

Arrivals EDDM EDMA EDMO via AMADI, REDBU and SBG VOR are released by LOVVB1 sector to APP München for turn and descent when passing these COPs. APP München shall be responsible for separation of these flights.

München APP shall ensure separation between IFR flights

- Departing EDDM on KIRDI SID, arriving via NAPSA, arrivals LOWS via TITIG.
- Departures EDDM via KIRDI are released for climb to FL220 by ACC München.

Minima for silent transfer of control between arrivals EDDM EDMA EDMO are reduced to 7 NM (see section 5.2).

5 Transfer of Control and Transfer of Communication.

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 (ADES EDDM EDMA EDMO): 7 NM
- If preceding aircraft is faster: 10 NM
- If succeeding aircraft is faster by 20kts / M0.05 or less: 20 NM
- If succeeding aircraft is faster by 40kts / M0.1 or less: 30 NM

5.3 Transfer of Communications.

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

5.4 Hand-Off procedure.

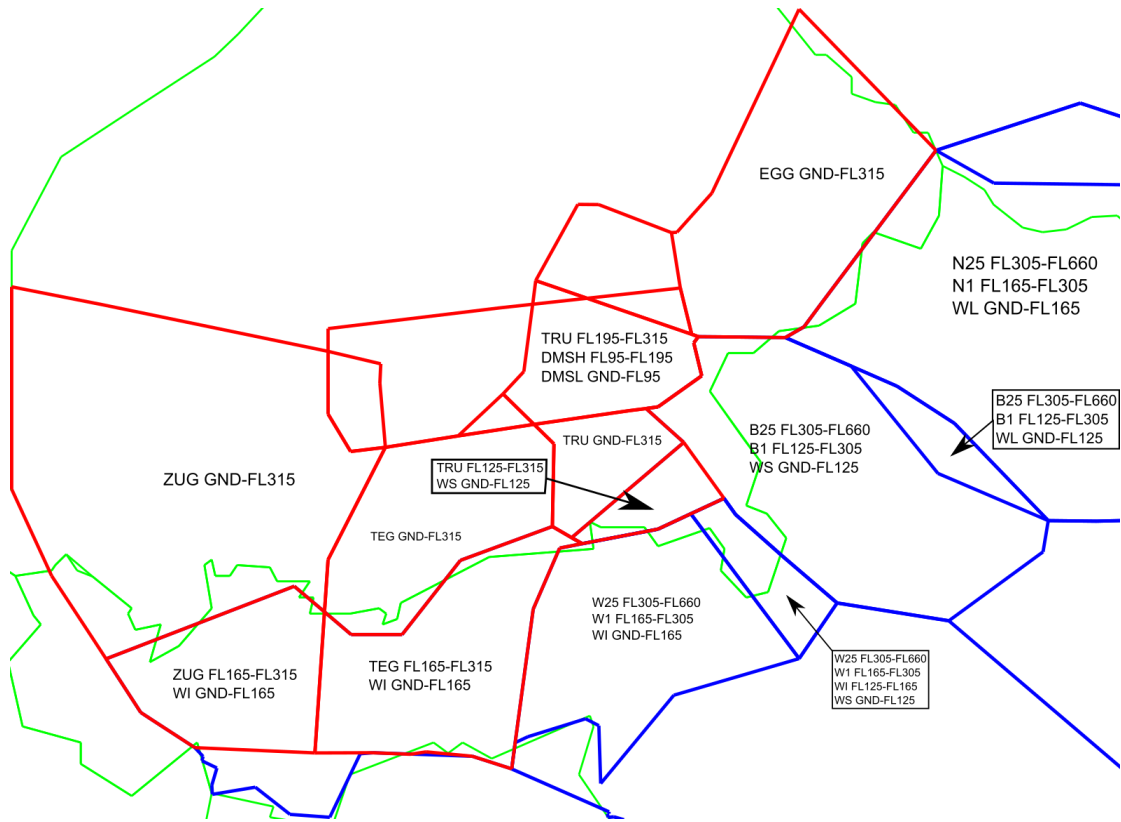
Unless otherwise agreed between stations online, the following hand-off procedure shall apply:

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.

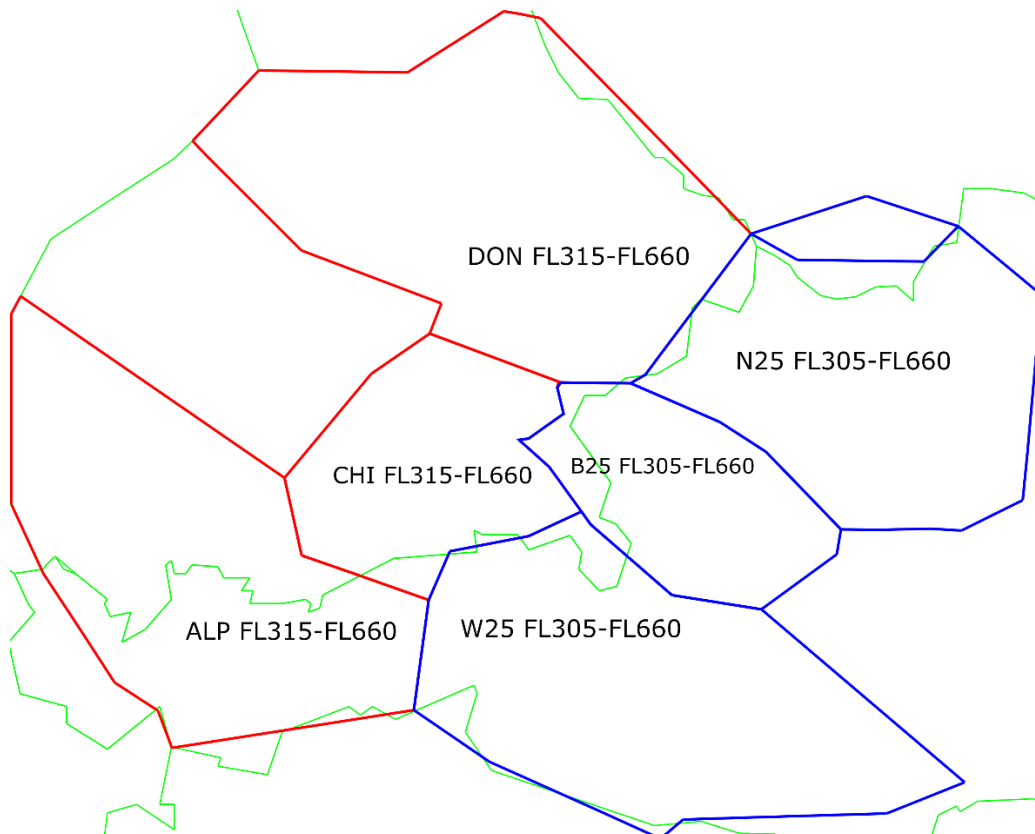
5.5 SSR Code Assignment.

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
Area of Common Interest (ACI) below FL315



Appendix B
Area of Common Interest (ACI) above FL315



Appendix C LOWI High Traffic Operations

Due to complexity of LOWI aerodrome, additional procedures for high traffic phases in LOWI are defined in the document available here:

vats.im/lowi-hiro

Whenever APP-WI declares “High Traffic Operations”, all involved parties are obligated to comply with the procedures declared in the document above.

Appendix D Lines depiction

