LETTER OF AGREEMENT

between

vACC Germany	**and**	vACC Poland
EDMM		**EPWW**

Effective: January 25, 2024 (AIRAC 2401)

1 General.

1.1 Purpose.

The purpose of this Letter of Agreement is to define the coordination to be applied between EDMM and EPWW 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 25, 2024 (AIRAC 2401) and supersedes previous version, dated November 2, 2023, of the Letter of Agreement between EDMM and EPWW.

1.4 Revision control.

Revision	Date	Author
1.0	04.11.2021	Hannes Altmann, Dawid Reszel
1.1	30.12.2021	Hannes Altmann, Dawid Reszel
2.0	23.03.2023	Hannes Altmann, Jannik Vogel, Dawid Reszel
2.1	02.11.2023	Hannes Altmann, Dawid Reszel
2.2	25.01.2024	Jannik Vogel, Dawid Reszel

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 EDMM.

2.1.1.1 Muenchen FIR.

Lateral limits: As described in AIP Germany
Vertical limits: GND – FL245

2.1.1.2 Rhein UIR.

Lateral limits: As described in AIP Germany
Vertical limits: FL245 – FL660

2.1.2 EPWW.

Lateral limits: As described in AIP Poland
Vertical limits: GND – FL660

2.2 Sectorization.

2.2.1 München FIR.

2.2.1.1 Sector Sachsen Low (EDMMSAS).

Lateral Limits: see Appendix A
Vertical Limits: GND - FL165, see Appendix A

1. EDDC_SAS_APP (Muenchen Radar), 125.875
2. EDMM_MEI_CTR (Muenchen Radar), 124.960
3. EDDP_TRS_APP (Muenchen Radar), 126.175
4. EDMM_GER_CTR (Muenchen Radar), 133.235
5. EDMM_HAL_CTR (Muenchen Radar), 118.235
6. EDMM_HOF_CTR (Muenchen Radar), 133.565
7. EDMM_CTR (Muenchen Radar), 124.050

2.2.1.2 Sector Meissen (EDMMMEI).

Lateral Limits: see Appendix B
Vertical Limits: FL165 - FL315, see Appendix B

1. EDMM_MEI_CTR (Muenchen Radar), 124.960
2. EDMM_GER_CTR (Muenchen Radar), 133.235
3. EDMM_HAL_CTR (Muenchen Radar), 118.235
4. EDMM_HOF_CTR (Muenchen Radar), 133.565
5. EDMM_CTR (Muenchen Radar), 124.050

2.2.2 Rhein UIR.

2.2.2.1 Sector Spree (EDUUSPE).

Lateral Limits: see Appendix C
Vertical Limits: FL315 - FL660, see Appendix C

1. EDUU_SPE_CTR (Rhein Radar), 133.285
2. EDUU_SAL_CTR (Rhein Radar), 133.860
3. EDUU_H_CTR (Rhein Radar), 128.235
4. EDUU_ERL_CTR (Rhein Radar), 136.405
5. EDMM_MEI_CTR (Muenchen Radar), 124.960
6. EDMM_GER_CTR (Muenchen Radar), 133.235
7. EDMM_HAL_CTR (Muenchen Radar), 118.235
8. EDMM_HOF_CTR (Muenchen Radar), 133.565
9. EDMM_CTR (Muenchen Radar), 124.050
10. EUC-ME_CTR (Maastricht Eurocontrol), 135.450

2.2.3 Warszawa FIR.

2.2.3.1 Sector EPPO TMA SOUTH (EPPO-S).

Lateral Limits: see Appendix D
Vertical Limits: FL095 - FL195, see Appendix D

1. EPPO_S_APP (Poznan Approach), 123.040
2. EPPO_N_APP (Poznan Approach), 128.925
3. EPWW_CTR (Warszawa Radar), 125.450
4. EPWW_U_CTR (Warszawa Radar), 130.625

2.2.3.2 Sector D Low (EPWWDL).

Lateral Limits: see Appendix E
Vertical Limits: FL095 - FL365, see Appendix E

1. EPWW_D_CTR (Warszawa Radar), 134.225
2. EPWW_CTR (Warszawa Radar), 125.450
3. EPWW_U_CTR (Warszawa Radar), 130.625
4. EUC-EN_CTR (Eurocontrol East), 135.300 (above FL295 only)

2.2.3.3 Sector D High (EPWWDH).

Lateral Limits: see Appendix E
Vertical Limits: FL365 - FL660, see Appendix E

1. EPWW_U_CTR (Warszawa Radar), 130.625
2. EPWW_D_CTR (Warszawa Radar), 134.225
3. EPWW_CTR (Warszawa Radar), 125.450
4. EUC-EN_CTR (Eurocontrol East), 135.300

2.2.3.4 Sector T Low (EPWWTL).

Lateral Limits: see Appendix E
Vertical Limits: FL095 - FL365, see Appendix E

1. EPWW_CTR (Warszawa Radar), 125.450
2. EPWW_U_CTR (Warszawa Radar), 130.625
3. EUC-EN_CTR (Eurocontrol East), 135.300 (above FL295 only)

2.2.3.5 Sector T High (EPWWTH).

Lateral Limits: see Appendix E
Vertical Limits: FL365 - FL660, see Appendix E

1. EPWW_U_CTR (Warszawa Radar), 130.625
2. EPWW_CTR (Warszawa Radar), 125.450
3. EUC-EN_CTR (Eurocontrol East), 135.300

2.3 Delegation of the Responsibility for the Provision of ATS.

Not applicable.

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 EDMM_1_CTR.

3.2 Abbreviations.

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

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 EDMM to EPWW.

3.4.1 Arrivals.

Arrival AD	COP	Level Allocation	Special Conditions	From Sector	To Sector
EPWR	LASIS	FL290		MEI	T
EPPO	POZUM	FL290		MEI	D

3.4.2 Departures.

Departure AD	COP	Level Allocation	Special Conditions	From Sector	To Sector
EDDP	LASIS	FL310		MEI	T

3.5 IFR flights from EPWW to EDMM.

3.5.1 Arrivals.

Arrival AD	COP	Level Allocation	Special Conditions	From Sector	To Sector
EDDE, EDBM, EDVE, EDAC	KORUP	FL240	(*1)	T	MEI
EDDP	KORUP	FL220		T	MEI
EDDC, EDAB	KORUP	FL160		EPPO S	SAS

(*1) Note: Flights from EPWW to EDMM via KORUP and GOVEN are released for turns 15 NM prior reaching sector boundary.

3.5.2 Departures.

Departure AD	COP	Level Allocation	Special Conditions	From Sector	To Sector
EPWR	NAROX	FL280		T	MEI

3.6 VFR flights from EDMM to EPWW.

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, EPPO_I_APP (Poznan Information), 126.300, shall be the primary sector for uncontrolled VFR flights. If EPPO_I_APP is offline, EPWW_V_CTR (Warszawa Information), 134.175, will cover this area.

3.7 VFR flights from EPWW to EDMM.

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. If EDXX_MM_CTR is offline, EDXX_FIS_CTR (Langen Information), 128.950, will cover this area.

4 Special Procedures.

4.1 Tactical Directs in Upper Airspace.

Waypoint	From Sector	Special Conditions
MOFKE	EDUU SPE	
KELEL		
LENOV		
GORPI		
BIMPA		ADES EPWA
DOSIX		ADES EPMO

Waypoint	From Sector	Special Conditions
LARET	EPWW T	
GOBAX		
NIMAB		
LARET		

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: 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.

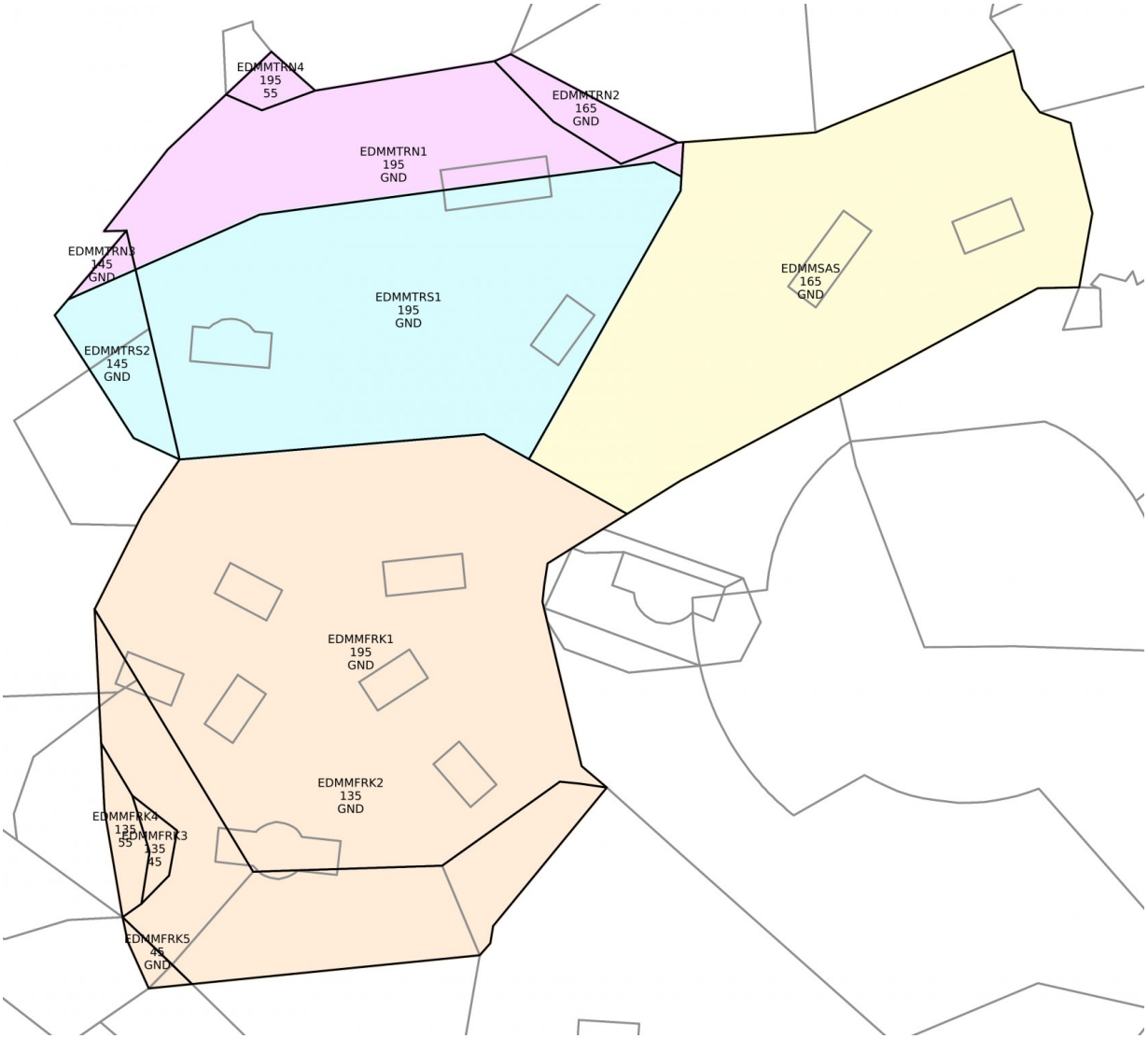
Unless otherwise agreed between stations online, the following hand-off procedure shall apply:

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.

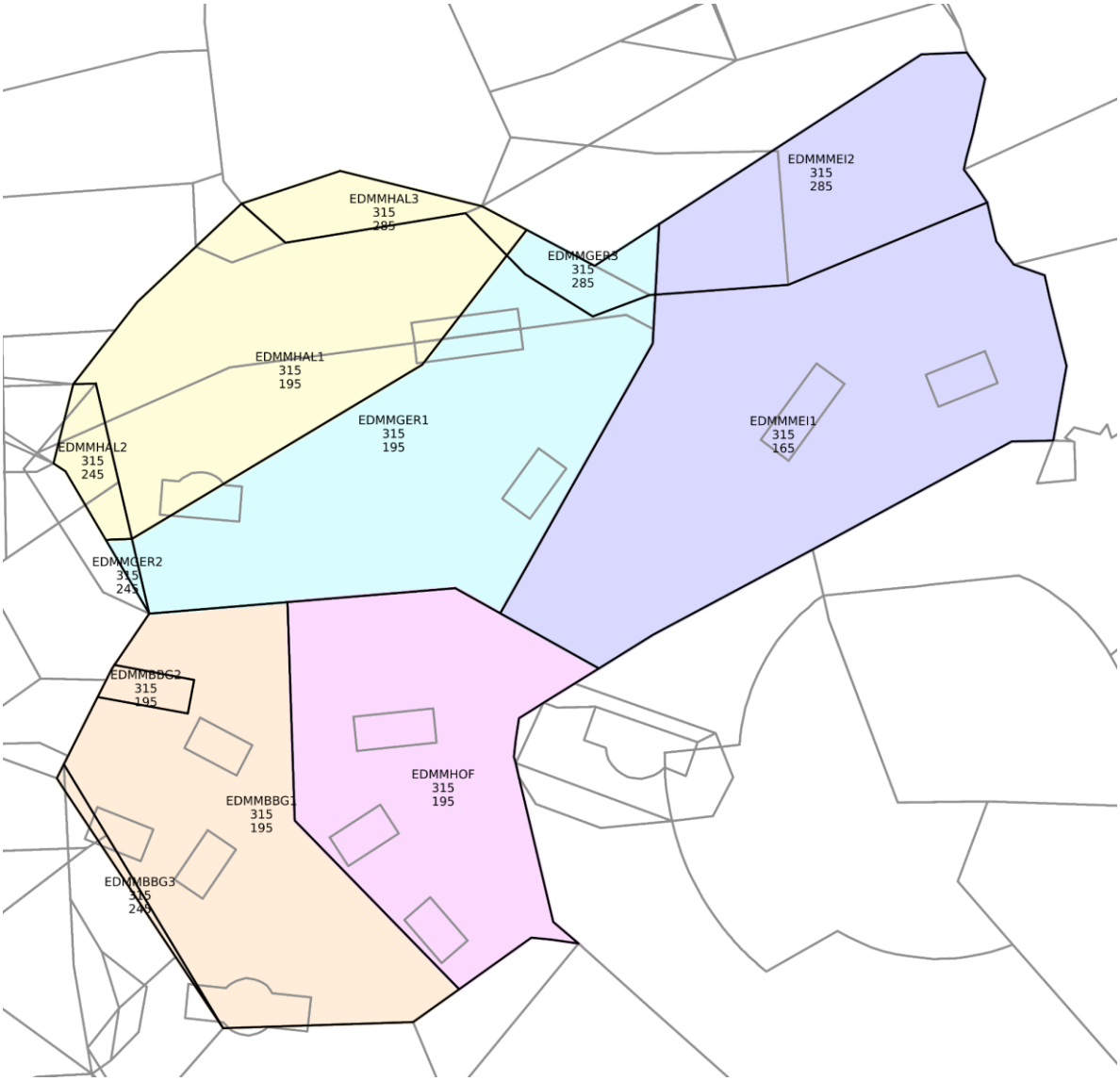
5.5 SSR Code Assignment.

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.

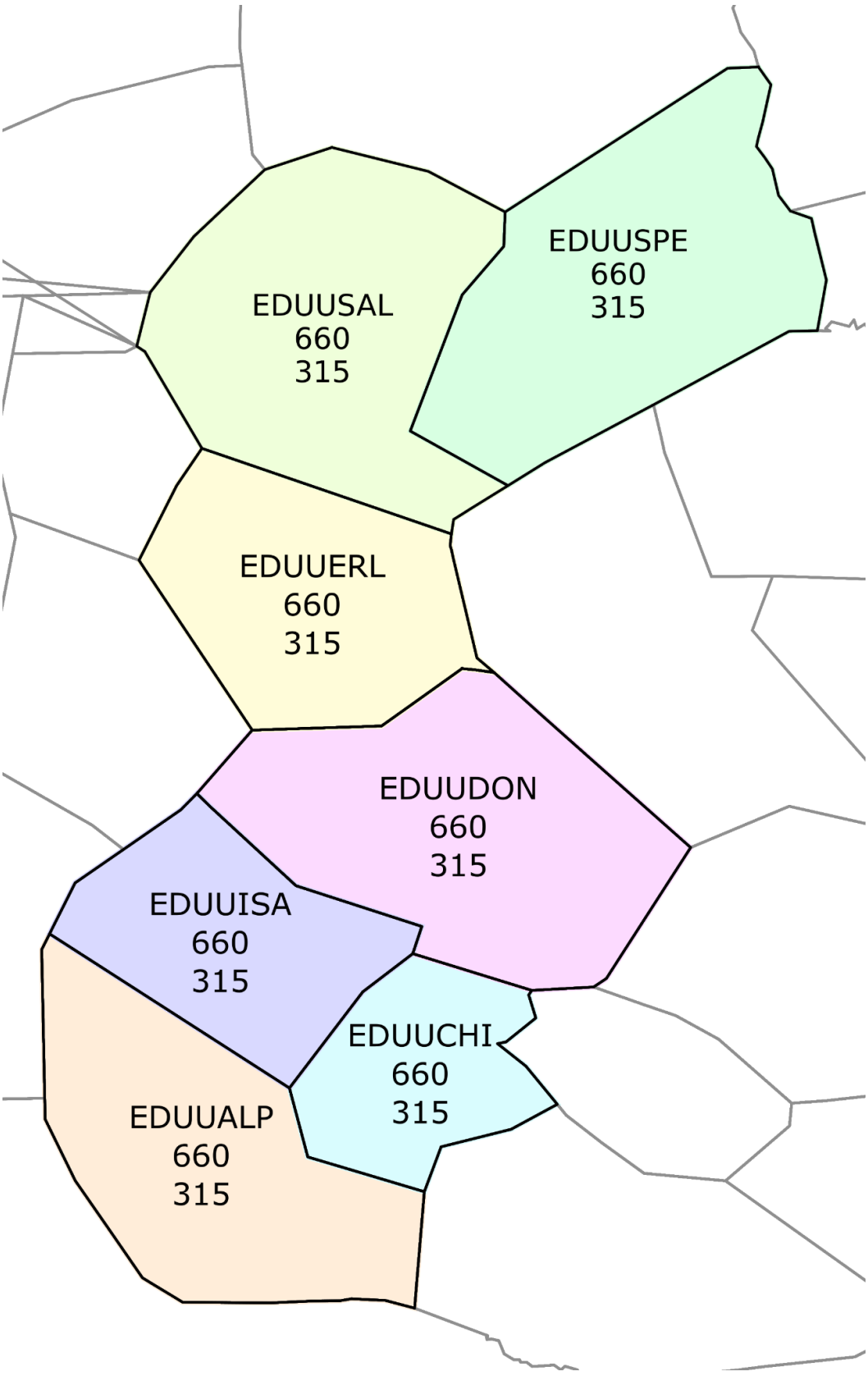
Appendix A
EDMM Sectors below FL165



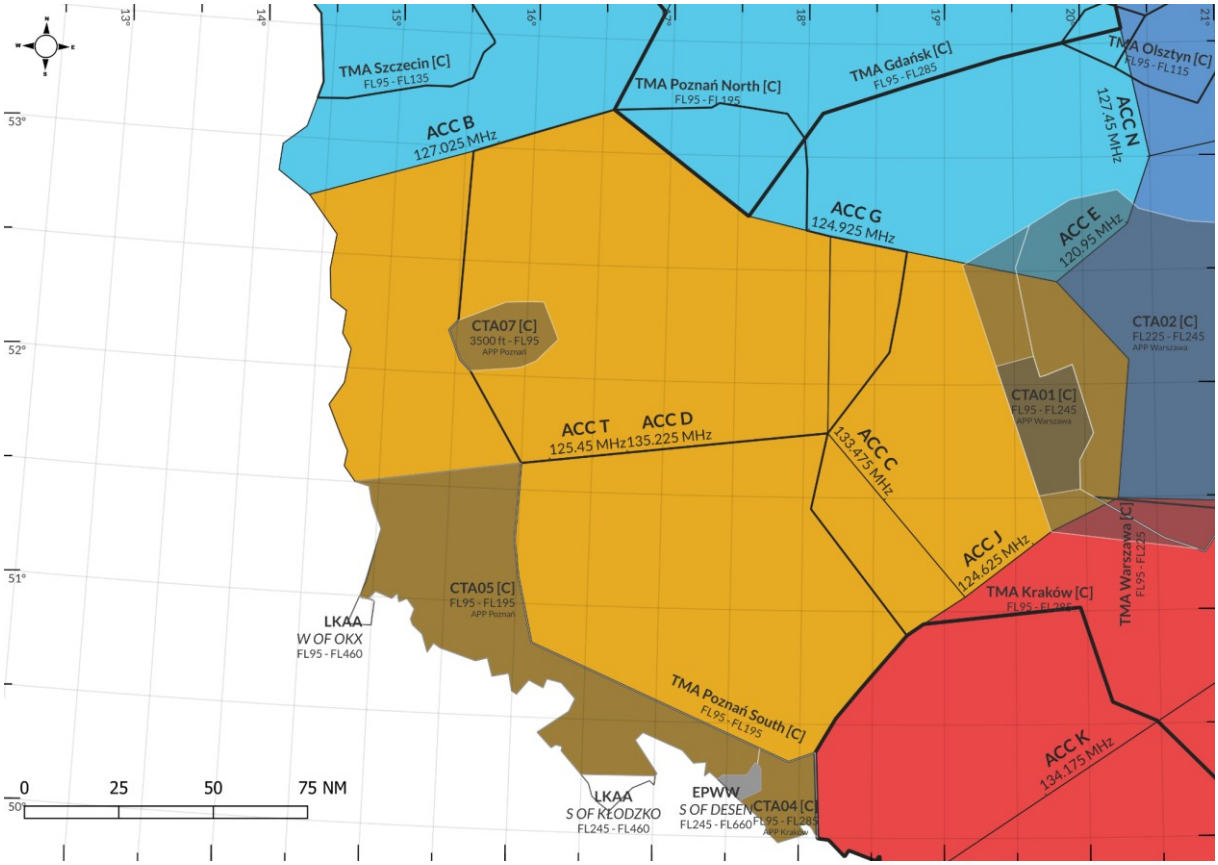
Appendix B
EDMM Sectors above FL165



Appendix C
EDUU Sectors above FL315

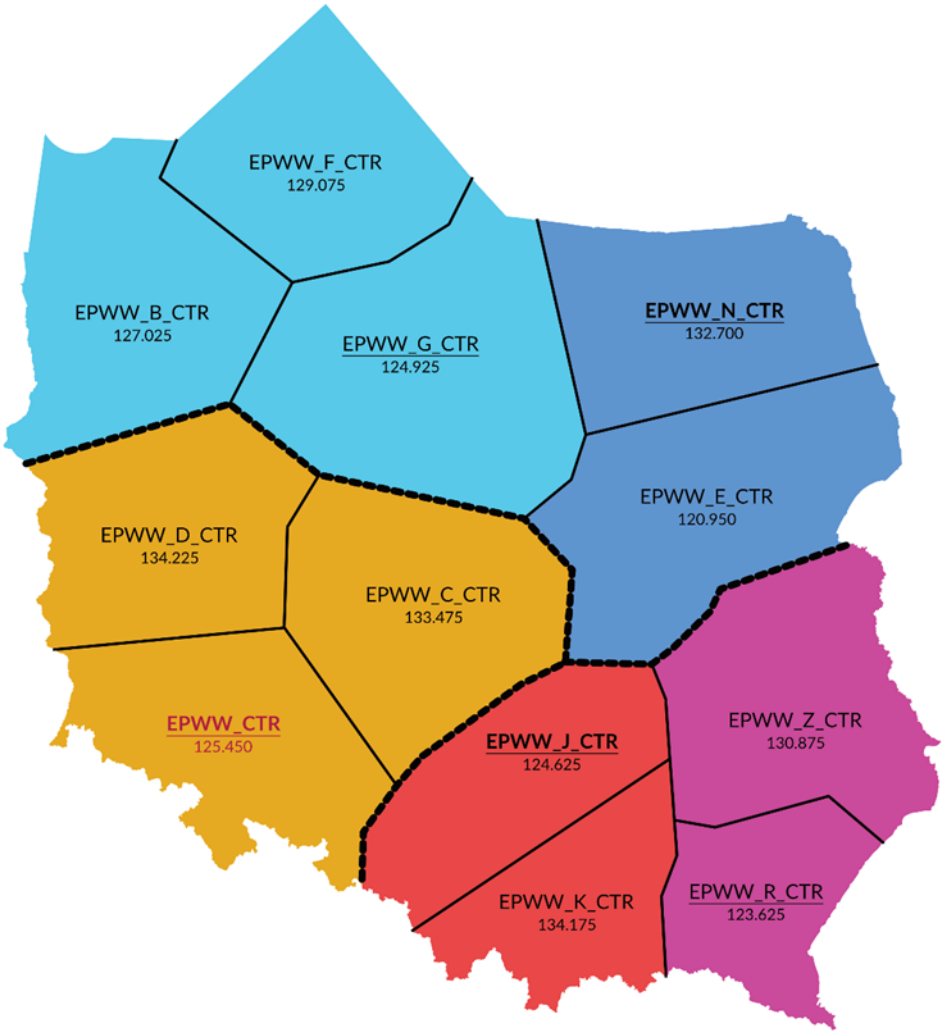


Appendix D
EPPO TMA



Appendix E
EPWW Sectors

ACC LOW



ACC HIGH

Covering FIR Warszawa above F365 when lower ACC is online