LETTER OF AGREEMENT

between

PL-VACC

and

Warszawa FIR

Praha FIR

VACC-CZ

Effective from 24th March 2022

1 General

1.1 Purpose

The purpose of this Letter of Agreement is to define the coordination procedures to be applied between Warszawa 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 24th March 2022 and supersedes any earlier Letter of Agreement between Warszawa FIR and Praha FIR.

Ondřej Pěnička VACC-CZ Director Piotr VACC Poland Director

Bedřich Schindler VACC-CZ Technical Director

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 Warszawa FIR

Lateral limits: Warszawa FIR as described in AIP Poland (available for free at <u>https://www.ais.pansa.pl/</u>) 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 https://aim.rlp.cz/)

Vertical limits: GND - FL660

2.2 Sectorization

2.2.1 Warszawa 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.

2.2.1.1 Sector J

Lateral limits: Sector J (See Appendix G)

Vertical limits: FL095 – FL365 excluding TMA Kraków

Responsible ATS unit (in order of precedence):

- 1. EPWW_J_CTR (Warszawa Radar), 124.625
- 2. EPWW_CTR (Warszawa Radar), 125.450
- 3. EPWW_U_CTR (Warszawa Radar), 130.625
- 4. EURE_FSS (Eurocontrol East), 135.300 (above FL245)

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

2.2.1.2 Sector K

Lateral limits: Sector K (See Appendix G)

Vertical limits: FL095 – FL365 excluding TMA Kraków

Responsible ATS unit (in order of precedence):

- 1. EPWW_K_CTR (Warszawa Radar), 134.175
- 2. EPWW_J_CTR (Warszawa Radar), 124.625
- 3. EPWW_CTR (Warszawa Radar), 125.450
- 4. EPWW_U_CTR (Warszawa Radar), 130.625
- 5. EURE_FSS (Eurocontrol East), 135.300 (above FL245)

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

2.2.1.3 Sector T

Lateral limits: Sector T (EPWW_CTR) (See Appendix G)

Vertical limits: FL095 – FL365 excluding TMA Kraków

Responsible ATS unit (in order of precedence):

- 1. EPWW_CTR (Warszawa Radar), 125.450
- 2. EPWW_U_CTR (Warszawa Radar), 130.625
- 3. EURE_FSS (Eurocontrol East), 135.300 (above FL245)

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

2.2.1.4 Sector J UPPER

Lateral limits: Sector J (See Appendix G)

Vertical limits: FL365 – FL660

Responsible ATS unit (in order of precedence):

- 1. EPWW_U_CTR (Warszawa Radar), 130.625
- 2. EPWW_J_CTR (Warszawa Radar), 124.625
- 3. EPWW_CTR (Warszawa Radar), 125.450
- 4. EURE_FSS (Eurocontrol East), 135.300

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

2.2.1.5 Sector K UPPER

Lateral limits: Sector K (See Appendix G)

Vertical limits: FL365 – FL660

Responsible ATS unit (in order of precedence):

- 1. EPWW_U_CTR (Warszawa Radar), 130.625
- 2. EPWW_K_CTR (Warszawa Radar), 134.175
- 3. EPWW_J_CTR (Warszawa Radar), 124.625
- 4. EPWW_CTR (Warszawa Radar), 125.450
- 5. EURE_FSS (Eurocontrol East), 135.300

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

2.2.1.6 Sector T UPPER

Lateral limits: Sector T (EPWW_CTR) (See Appendix G)

Vertical limits: FL365 – FL660

Responsible ATS unit (in order of precedence):

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

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

2.2.1.7 TMA Kraków

Lateral limits: TMA Kraków, CTA04 (See Appendix H)

Vertical limits: 2300 ft AMSL – FL285

Responsible ATS unit (in order of precedence):

- 1. EPKK_APP (Kraków Approach), 121.075
- 2. EPWW_K_CTR (Warszawa Radar), 134.175
- 3. EPWW_J_CTR (Warszawa Radar), 124.625
- 4. EPWW_CTR (Warszawa Radar), 125.450
- 5. EPWW_U_CTR (Warszawa Radar), 130.625
- 6. EURE_FSS (Eurocontrol East), 135.300 (above FL245)

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

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 Sector UPPER NORTH

Lateral limits: clockwise FIR MÜNCHEN-FIR WARSZAWA border – east of PADKA, (See Appendix A and B)

Vertical limits: FL305 - FL660 excluding "DESEN area"

Responsible ATS unit (in order of precedence):

- 1. LKAA U CTR (Praha Radar), 133.425
- 2. LKAA_N_CTR (Praha Radar), 127.825
- 3. LKAA_CTR (Praha Radar), 118.375
- 4. EURE_FSS (Eurocontrol East), 135.300 (above FL245)

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

2.2.2.2 Sector LOWER NORTH

Lateral limits: clockwise FIR MÜNCHEN-FIR WARSZAWA border – east of ADADO, (See Appendix C and D)

Vertical limits: FL125 - FL305

- FL245 FL305 excluding "Kłodzko area", (See Appendix C)
- FL125 FL245 including "Kłodzko area", (See Appendix D)

Responsible ATS unit (in order of precedence):

- 1. LKAA N CTR (Praha Radar), 127.825
- 2. LKAA_CTR (Praha Radar), 118.375
- 3. EURE_FSS (Eurocontrol East), 135.300 (above FL245)

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

2.2.2.3 Sector UPPER SOUTH

Lateral limits: clockwise east of PADKA – FIR WARSZAWA-FIR BRATISLAVA border, (See Appendix A and B)

Vertical limits: FL305 – FL660

Responsible ATS unit (in order of precedence):

- 1. LKAA_U_CTR (Praha Radar), 133.425
- 2. LKAA_S_CTR (Praha Radar), 127.125
- 3. LKAA_CTR (Praha Radar), 118.375
- 4. EURE_FSS (Eurocontrol East), 135.300 (above FL245)

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

2.2.2.4 Sector LOWER SOUTH

Lateral limits: clockwise east of ADADO – FIR WARSZAWA-FIR BRATISLAVA border, (See Appendix C and D)

Vertical limits: FL125 - FL305

Responsible ATS unit (in order of precedence):

- 1. LKAA_S_CTR (Praha Radar), 127.125
- 2. LKAA_CTR (Praha Radar), 118.375
- 3. EURE_FSS (Eurocontrol East), 135.300 (above FL245)

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

2.2.2.5 CTA Ostrava

Lateral limits: clockwise FIR MÜNCHEN-FIR WARSZAWA border – FIR WARSZAWA-FIR BRATISLAVA border (See Appendix D), except for TMA Ostrava and HDO Box.

Vertical limits: GND – FL125

Responsible ATS unit (in order of precedence):

- 1. LKMT_APP (Praha Radar), 119.375
- 2. LKAA_N_CTR (Praha radar), 127.825
- 3. LKAA_CTR (Praha radar), 118.375

2.2.2.6 TMA Ostrava

Lateral limits: as per AIP Czech Republic, approx. west of REGLI to west of TUSIN (See Appendix E and F)

Vertical limits: 1000 ft AGL – FL095

Responsible ATS unit (in order of precedence):

- 1. LKMT_APP (Praha Radar), 119.375
- 2. LKAA_N_CTR (Praha radar), 127.825
- 3. LKAA_CTR (Praha radar), 118.375

2.2.2.7 HDO Box

Note: Internal coordination airspace inside LKAA, not actual published airspace sector.

Lateral limits: FIR MÜNCHEN-FIR WARSAW border – 50 40 26 N 015 51 55 E (See Appendix E and F)

Vertical limits: FL95 – FL125

Responsible ATS unit (in order of precedence):

- 1. LKPR_APP (Praha radar), 127.575
- 2. LKAA_CTR (Praha radar), 118.375

3 Procedures

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.

Traffic may be cleared direct to its co-ordination point (COP) without prior coordination.

Traffic overflying EPWW and/or LKAA shall be handed off on a valid ATS route at a valid RFL using the semi-circular cruising level rule (even/odd). Direct routings shall be coordinated.

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, 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.

3.2 IFR flights from/to Warszawa FIR (EPWW) to/from Praha FIR (LKAA)

Following abbreviations and symbols are used in this section:

↑ ICAO code	Traffic departing from airport indicated by ICAO code
\downarrow ICAO code	Traffic arriving to airport indicated by ICAO code
ТоС	Transfer of Control as described in section 4
<u>nnn</u>	ToC levelled at flight level nnn
↑nnn	ToC in climb to flight level nnn
√nnn	ToC in descend to flight level nnn
nnnA	at flight level nnn or above
nnnB	at flight level nnn or below
rlsd	released (release conditions follow)

RASAN			
LKAA -> EPWW	EPWW -> LKAA		
	个 EPPO	<u>340</u>	
	\downarrow EDDN EDDM	<u>340</u>	
	\downarrow other LKAA	<u>280</u>	
NIL	↓ LKPR LKKB LKVO EDDC	↓ 220, 260B	
	ACC Warszawa is responsible for t separation between traffic conver RASAN	he provision of ging after TOMTI and	

ΤΟΜΤΙ			
LKAA -> EPWW		EPWW -> LKAA	
↑ LKKV	<u>310</u>	个 EPWR	<u>260</u> rlsd个 after ToC
↑ LKPR LKKB LKVO	↑290, 270A	↓ EDDN EDDM	<u>340</u>
↑ EDDC	个190, 170A	\downarrow other LKAA	<u>280</u>
↓ EPPO	<u>310</u>	↓ LKPR LKKB LKVO EDDC	↓220, 260B
↓ EPWR	<u>190</u>	ACC Warszawa is responsible for the provision of separation between traffic converging after TOMTI and RASAN	

LAGAR			
LKAA -> EPWW		EPWW -> LKAA	
↑ LKKV	<u>310</u>		
↑ LKPR LKKB LKVO	个290, 270A rlsd 个300 after Toc	NIL	
↓ EPPO	<u>310</u>		
↓ EPWR	<u>190</u>		

ELVOT		
LKAA -> EPWW EPWW -> LKAA		
NIL	NIL	

ENORU		
LKAA -> EPWW EPWW -> LKAA		
NIL	NIL	

DESEN			
LKAA -> EPWW EPWW -> LKAA		A	
ACC Praha is responsible for separation of traffic proceeding via PADKA and BAVOK and traffic via REGLI and DESEN.	个 EPWR	个270 <i>,</i> 250A	
	↓ LKTB LKKU LKNA	<u>290</u>	
	↓ LOWW LZBB	<u>350</u>	
	Flights via DESEN at FL300 or below shall be transferred		
	to SOUTH LOWER sector.		

UTEVO			
LKAA -> EPW	W	EPWW -> LKAA	
↑ ЕРКК ЕРКТ	个280	NIL	

ADADO			
LKAA -> EPWW EPWW -> LKAA			
	↑ ЕРКК	<u>280</u>	
NIL	小 ЕРКТ	个240, 200A	
		rlsd 280	

REGLI			
LKAA -> EPWW		EPWW -> LKAA	
↑ LKMT	↑110, 100A	个 EPWR	<u>270</u> , PEKOT 250A
↓ EPPO	360	↓ LOWW LZBB	<u>330</u>
↓ EPWR	<u>200</u>		
ACC Praha is responsible for separation of traffic proceeding via PADKA and BAVOK and traffic via REGLI and DESEN.		↓ LKMT	<u>120</u>

BAVOK			
LKAA -> EPWW		EPWW -> LKAA	
↑ LKMT	↑110, 100A	↑ ЕРКТ	240 rsld 280
↑ LKPD LKTB LKCV	↑330, 290A	↓ LKMT	<u>120</u>
↓ ЕРКТ	↓150, 230B rlsd 130		
ACC Praha is responsible for separation of traffic proceeding via PADKA and BAVOK and traffic via REGLI and DESEN.			

PADKA			
LKAA -> EPWW		EPWW -> LKAA	
↑ LKMT	个110, 100A	↓ LKPD LKCV	<u>280</u>
↑ LKPD LKTB LKCV	个330, 290A		
↓ EPRZ EPLB	<u>310</u>		
↓ ЕРКК	↓190, 230B rlsd 130	↓ LKMT	<u>120</u>
ACC Praha is responsible for separation of traffic			
proceeding via PADKA and BAVOK and traffic via REGLI and DESEN.			

TUSIN			
LKAA -> EPWW	EPWW -> LKAA		
NIL	↑ ЕРКК ЕРКТ	个240, 130A rlsd 280	
	↓ LOWW LZBB	<u>340</u>	
	↓ LKTB LKKU LKNA	<u>280</u>	
	↓ LKMT	<u>120</u>	

NETIR			
LKAA -> EPWW		EPWW -> LKAA	
↑ LKMT	↑110, 100A		
	↓150, 190B	NIL	
rls	rlsd 130		

3.3 VFR flights from Warszawa 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.

3.4 VFR flights from Praha FIR to Warszawa 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, EPKK_I_APP (Krakow Information 119.275) / EPPO_I_APP (Poznan Information 126.300) / EPWW_I_CTR (Warszawa Information 134.875), shall be the sector for uncontrolled VFR flights. See Appendix I for the FIS in G sectorization.

4 Transfer of Control and Transfer of Communications

4.1 Transfer of Control

Transfer of Control takes place at the Area of Responsibility boundary.

A minimum distance of 5 NM from Area of Responsibility boundary shall be observed for aircraft not intending to cross the Area of Responsibility boundary unless otherwise coordinated.

4.2 Transfer of Communications

Transfer of Communications shall take place no later than Transfer of Control. Inability to accept hand-off of an aircraft, due to capacity issues, technical problems or because the receiving ATS unit is about to close, must be coordinated with the releasing ATS unit.

4.3 Transfer of Radar Identification (Hand-off)

Transfer of Radar Identification shall take place without prior coordination provided that **the minimum distance between two successive flights on the same route and flight level to be transferred is at least 10 NM and constant or increasing.**

Any direct routing which deviates from the flight planned route of the flight to be transferred is indicated in the Euroscope and has been coordinated between the transferring and accepting ATS stations (either by chat or by COPN/COPX tools)

Any assigned speed or heading has been coordinated between the transferring and accepting ATS stations by chat.

Hand-off without prior coordination shall be initiated by the releasing ATS unit no later than 2 minutes before the Area of responsibility boundary. Transfer of Radar Identification (Hand-off) shall be accepted by receiving unit only after a successful Transfer of Communications.

Note: In case the receiving ATS unit has set its state to "break", transfer of communication shall only take place after prior coordination or after the track has been accepted.

4.4 SSR Code Assignment

Both ATS units shall transfer flights with verified discrete SSR codes. Flights equipped with Mode S transponder (based on FPL Equipment code) can be identified and transferred with the squawk code 1000 and Mode S identification used.

5 Appendix A



6 Appendix B



7 Appendix C



8 Appendix D



9 Appendix E



10 Appendix. F



11 Appendix G



12 Appendix H



13 Appendix I

