LETTER OF AGREEMENT

between

PL-VACC **and** **VACC-CZ**

Warszawa FIR Praha FIR

Effective: 01st January 2017

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 01st August 2015 and supersedes any earlier Letter of Agreement between Warszawa FIR and Praha FIR.

Jáchym Vohryzek	Piotr Grudniewski
Praha FIR, VACC Director	Warszawa FIR, VACC Director
VACC Czech Republic	VACC Poland

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 after free registration at http://ais.pansa.pl/aip/)

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 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 Krakow Approach

Lateral limits: North-eastern border of Praha FIR between BAVOK and NETIR, then line NUMBABAREX-NAVUR-RODAK-GOVRI to southern borders of Warsaw FIR, then along border with Slovak airspace to NETIR. See Appendix D.

Vertical limits: GND – FL285.

Responsible ATS unit (in order of precedence):

1. EPKK_APP (Krakow Approach), 121.070

2. EPWW_S_CTR (Warsaw Radar), 134.920

3. EURE_FSS (Eurocontrol), 135.300 (above FL245)

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

2.2.1.2 Warsaw sector West

Lateral limits: From LASIS to BADMO then MOLIL, along P851 to BIMPA, then includes N133 to AGAVA, via MAKOV and MAPIK to BAVOK (see Appendix E)

Vertical limits: FL95-FL660, traffic information will be provided below FL95 if possible.

Responsible ATS unit (in order of precedence):

1. EPWW_W_CTR (Warsaw Radar), 134.870

2. EPWW_S_CTR (Warsaw Radar), 134.920

3. EURE_FSS (Eurocontrol), 135.300 (above FL245)

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

2.2.1.3 Warsaw sector South

Lateral limits: remaining part of southern Poland east from West sector, below line LETKI-LIMVI-AGAVA (see Appendix E)

Vertical limits: FL95-FL660, traffic information will be provided below FL95 if possible.

Responsible ATS unit (in order of precedence):

1. EPWW_S_CTR (Warsaw Radar), 134.920

2. EURE_FSS (Eurocontrol), 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 LKAA Sector UPPER

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

Vertical limits: FL305 – FL660

Responsible ATS unit (in order of precedence):

1. LKAA_U_CTR (Praha radar), 133.420
2. LKAA_N_CTR (Praha radar), 127.820
3. LKAA_CTR (Praha radar), 127.120
4. EURE_FSS (Eurocontrol), 135.300 (above FL245)

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

2.2.2.2 LKAA Sector NORTH

Lateral limits: clockwise FIR MÜNCHEN-FIR WARSZAWA border – ASTEL-OKX-RASAN-…-ADADO-SW of ADADO and NW of AMTEK (See Appendix B)

Vertical limits:

- FL125 – FL305 generally with exception:
- FL245 – FL305 btn. approx. ENORU and ARNUM (“Kłodzko area”)

Responsible ATS unit (in order of precedence):

1. LKAA_N_CTR (Praha radar), 127.820
2. LKAA_CTR (Praha radar), 127.120
3. EURE_FSS (Eurocontrol), 135.300 (above FL245)

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

2.2.2.3 LKAA Sector SOUTH

Lateral limits: clockwise SW of ADADO and NW of AMTEK-AMTEK-REGLI-...-FIR MÜNCHEN-FIR WARSZAWA border – OKX - … -NETIR-FIR WARSZAWA – FIR BRATISLAVA border (See Appendix B)

Vertical limits:

- FL125 – FL305

Responsible ATS unit (in order of precedence):

1. LKAA_CTR (Praha radar), 127.120
2. EURE_FSS (Eurocontrol), 135.300 (above FL245)

Remark: EURE_FSS is an ATS unit of EuroCenter vACC.

2.2.2.4 OSTRAVA Sector SUPERLOW

Lateral limits: clockwise FIR MÜNCHEN-FIR WARSZAWA border north of GUDON-RASAN-TOMTI-...-NETIR, FIR WARSZAWA – FIR BRATISLAVA border (See Appendix C), except for TMA Ostrava, airspace south of Kłodzko line is not part of this sector, airspace NE of DESEN line is part of this sector.

Vertical limits: GND – FL125

Responsible ATS unit (in order of precedence):

1. LKMT_APP (Ostrava radar), 118.370
2. LKAA_N_CTR (Praha radar), 127.820 (only up to SW of ADADO and NW of AMTEK boundary)
3. LKAA_CTR (Praha radar), 127.120

2.2.2.5 TMA Ostrava

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

Vertical limits: 1000ft AGL – FL95

Responsible ATS unit (in order of precedence):

1. LKMT_APP (Ostrava radar), 118.370
2. LKAA_CTR (Praha radar), 127.120

2.2.2.6 HDO Box

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 C)

Vertical limits: FL95 – FL125

Responsible ATS unit (in order of precedence):

1. LKPR_APP (Praha radar), 127.570
2. LKAA_CTR (Praha radar), 127.120

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 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.

3.2 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
↓ ICAO code	Traffic arriving to airport indicated by ICAO code
ToC	Transfer of Control as described in section 4.1
nnn	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)

<table>
<tr><th>RASAN</th><th>LKAA -> EPWW</th><th colspan="2">EPWW -> LKAA</th></tr>
<tr><td rowspan="5"></td><td rowspan="5">NIL</td><td>↑ EPPO</td><td>340</td></tr>
<tr><td>↓ EDDN EDDM</td><td>340</td></tr>
<tr><td>↓ other LKAA</td><td>280</td></tr>
<tr><td>↓ LKPR LKKB LKVO EDDC</td><td>↓220, 260B</td></tr>
<tr><td colspan="2">ACC Warszawa is responsible for the provision of separation between traffic converging after TOMTI and RASAN</td></tr>
</table>

TOMTI	LKAA -> EPWW		EPWW -> LKAA	
	↑ LKKV via P733 (CZE)	310	↑ EPWR	260 rlsd↑
	↑ LKPR LKKB LKVO via P733 (CZE)	↑290, 270A	↓ EDDN EDDM	340
	↑ LKPR LKKB LKVO LKKV EDDC via N869 (TRZ)	↑190, 170A	↓ other LKAA	280
	↓ EPPO via P733 (CZE)	290	↓ LKPR LKKB LKVO EDDC	↓220, 260B
	↓ EPWR	190	ACC Warszawa is responsible for the provision of separation between traffic converging after TOMTI and RASAN	

LAGAR	LKAA -> EPWW		EPWW -> LKAA
	↑ LKKV	310	NIL
	↑ LKPR LKKB LKVO	↑290, 270A rlsd↑300	
	↓ EPPO	290	
	↓ EPWR	190	

ELVOT	LKAA -> EPWW		EPWW -> LKAA
	NIL		NIL

ENORU	LKAA -> EPWW		EPWW -> LKAA
	NIL		NIL

DESEN	LKAA -> EPWW	EPWW -> LKAA	
	ACC Praha is responsible for separation of traffic proceeding via L984 and UT709 and traffic via REGLI, DESEN and AMTEK.	↑ EPWR	250
		↓ LOWW LZBB	350

ADADO	LKAA -> EPWW	EPWW -> LKAA	
	NIL	↑ EPKK	↑280, 260A
		↑ EPKT	↑240, 200A

AMTEK	LKAA -> EPWW	EPWW -> LKAA	
	ACC Praha is responsible for separation of traffic proceeding via L984 and UT709 and traffic via REGLI, DESEN and AMTEK.	↑ EPWR	250 at PEKOT
		↓ LOWW LZBB	330

REGLI	LKAA -> EPWW		EPWW -> LKAA	
	↑ LKMT	↑110, 100A	↑ EPWR	190
	↓ EPWR	200	↓ LKMT	120

	ACC Praha is responsible for separation of traffic proceeding via		

	L984 and T709 and traffic via REGLI, DESEN and AMTEK.		

BAVOK	LKAA -> EPWW		EPWW -> LKAA	
	↑ LKPD LKTB LKPO LKCV	↑330, 290A	↑ EPKT	240
	↑ LKMT	↑110, 100A	↓ LKMT	120
	↓ EPKT	↓150, 230B, rlsd. 130		

PADKA	LKAA -> EPWW		EPWW -> LKAA	
	↑ LKPD LKTB LKPO LKCV	↑330, 290A	↓ LKPD LKCV	280
	↓ EPRZ EPLB	310		
	↓ EPKK	↓190, 230B		

TUSIN	LKAA -> EPWW	EPWW -> LKAA	
	NIL	↑ EPKK EPKT	↑240, 130A
		↓ LOWW LZBB	340
		↓ LKTB LKPO	280
		↓ LKMT	120

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

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 sectors 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, EPWW_I_CTR (Warszawa Information 119.450, shall be the primary sector for uncontrolled VFR flights.

4 Transfer of Control and Transfer of Communications

4.1 Transfer of Control

Transfer of Control shall take place at the Area of Responsibility (AoR) boundary.

4.2 Transfer of Communications

Transfer of Communications shall take place no later than Transfer of Control. Transfer of Communication shall take place only after Transfer of Radar Identification (Hand-off) has been accepted by the receiving ATS unit.

4.3 Transfer of Radar Identification (Hand-off)

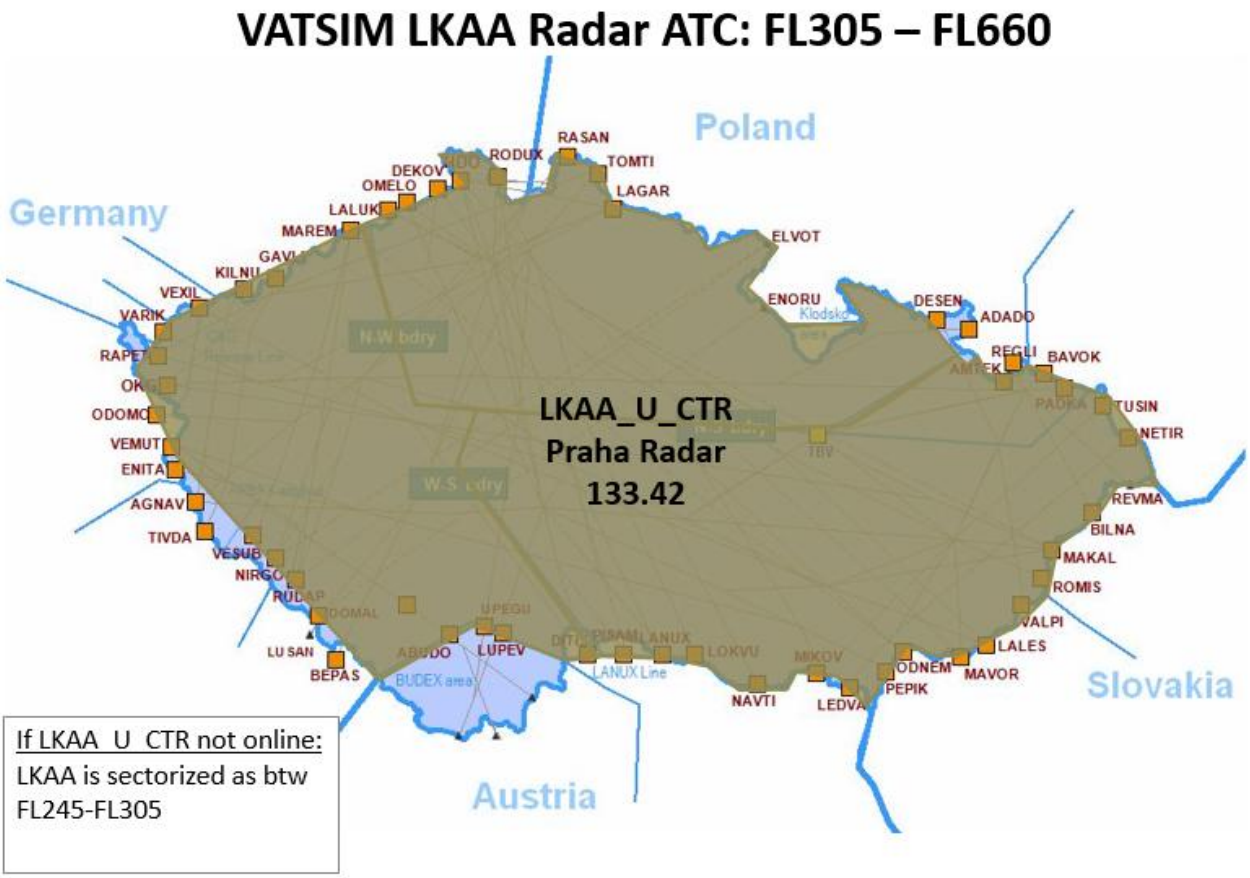
Transfer of Radar Identification shall take place without prior coordination provided that the minimum distance between two successive flights on the same route and flight level to be transferred is at least 10NM and constant or increasing

1. 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)
2. Any assigned heading has been coordinated between the transferring and accepting ATS stations by chat

4.4 SSR Code Assignment

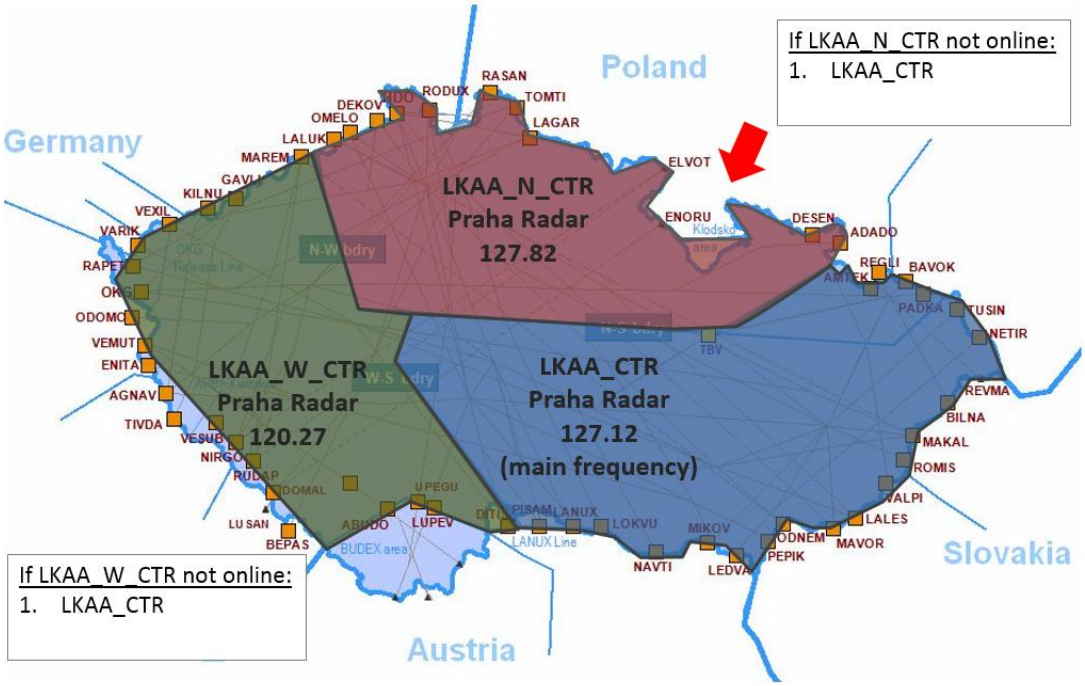
Both ATS units shall transfer flights with verified discrete SSR codes.

5 Appendix A

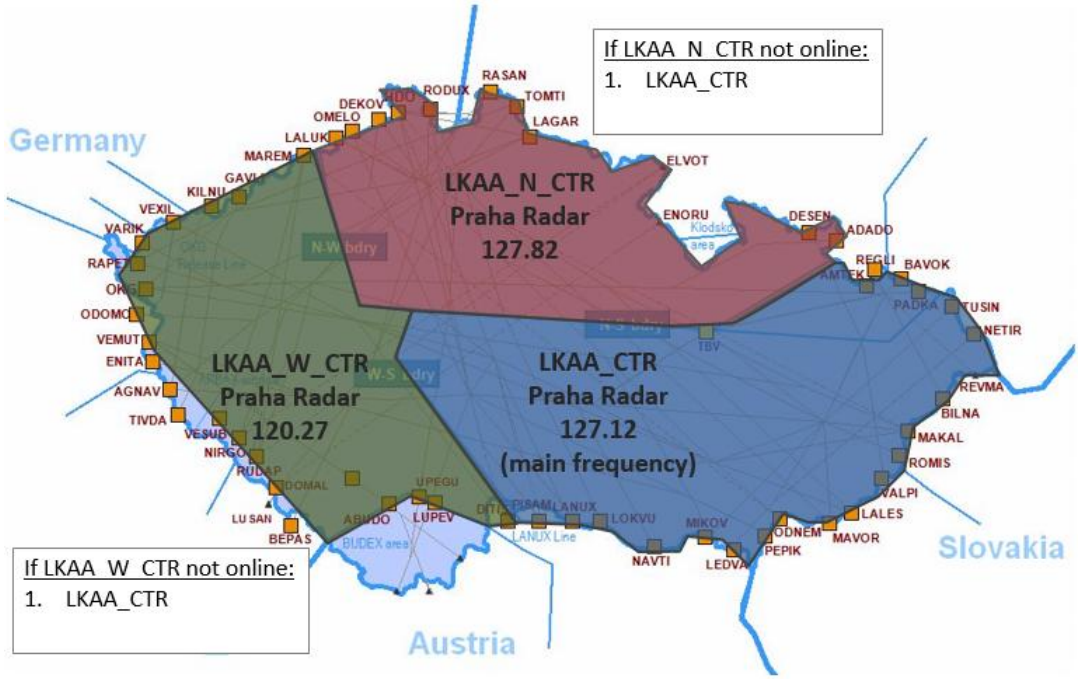

VATSIM LKAA Radar ATC: FL305 – FL660
Poland
Germany
Slovakia
Austria
LKAA_U_CTR
Praha Radar
133.42
RASAN
RODUX
TOMTI
LAGAR
DEKOV
OMELO
LALUK
MAREM
KILNU
VEXIL
VARIK
RAPET
ODOMO
VEMUT
ENITA
AGNAV
TIVDA
VESUB
NIRGO
BEPAS
LU SAN
LUPEV
ELVOT
ENORU
DESEN
ADADO
BAVOK
TUSIN
NETIR
REVMA
BILNA
MAKAL
ROMIS
VALPI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

6 Appendix B

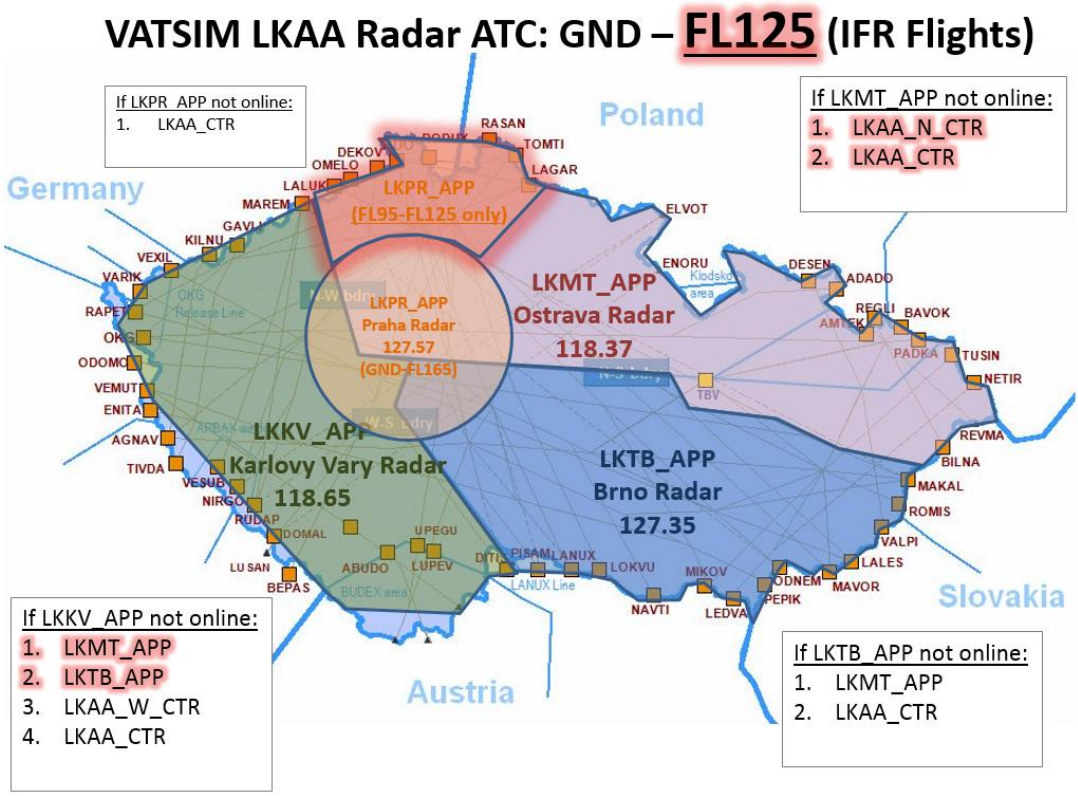
VATSIM LKAA Radar ATC: FL245 – FL305



VATSIM LKAA Radar ATC: FL125 – FL245



7 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
LALUK
MAREM
GAVLI
KILNU
VEXIL
VARIK
RAPET
OKG
ODOMO
VEMUT
ENITA
AGNAV
TIVDA
VESUB
NIRGO
RUDAP
DOMAL
UPEGU
LUSAN
ABUDO
LUPEV
BEPAS
PISAM
LANUX
LOKVU
MIKOV
NAVTI
LEDVA
ODNEM
PEPIK
MAVOR
LALES
VALPI
ROMIS
MAKAL
BILNA
REVMA
NETIR
TUSIN
PADKA
BAVOK
REGLI
ADADO
DESEN
ENORU
ELVOT
TBV
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