2019

LETTER OF AGREEMENT

BETWEEN

BERLIN REGIONAL GRUOP/RHEIN UIR AND SWEDEN FIR

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28 March 2019

1 General

1.1 Purpose

The purpose of this Letter of Agreement (LoA) is to define the coordination procedures to be applied between Bremen FIR / Rhein UIR and Sweden FIR when providing ATS on the VATSIM network.

1.2 Distribution

All operationally significant information and procedures contained in this Letter of Agreement shall be distributed by the appropriate means to all concerned controllers.

1.3 Validity

This Letter of Agreement becomes effective 28/03/2019 and supersedes the Letter of Agreement between Bremen FIR / Rhein UIR and VATSIM Scandinavia dated 13/09/2018.

Martin Loxbo	Gordian Heer
Director Sweden FIR	Berlin Regional Group

2 Areas of Responsibility and Sectorisation

2.1 Areas of Responsibility

2.1.1 Bremen FIR / Rhein UIR

Lateral limits:	Bremen FIR/Rhein UIR	
Vertical limits:	Bremen FIR:	GND – FL285
	Rhein UIR:	FL285 – UNL

2.1.2 Sweden FIR

Lateral limits:	Sweden FIR
Vertical limits:	GND – UNL

2.2 Sectorisation

2.2.1 Bremen FIR/Rhein UIR

Area	Sector Name	Secondary Sectors	Remarks
Bremen Müritz Sector	GND – FL285 Bremen Müritz Sector EDWW_M_CTR 124.170	EDWW_B_CTR 123.220 EDWW_CTR 125.020	Callsign BREMEN RADAR
Rhein Ostsee Sector	FL285 – UNL Rhein Ostsee Sector EDUU_E_CTR 128.070	EDWW_M_CTR 124.170 EDWW_B_CTR 123.220 EDWW_CTR 125.020	Callsign RHEIN RADAR (BREMEN RADAR)

2.2.2 Sweden FIR

Area	Sector Name	Secondary Sectors	Remarks
Malmö ACC Sector L	GND – FL285 Malmö AoR Sector L ESMS_APP 134.970	ESMM_K_CTR 131.270 ESMM_8_CTR 128.170 ESMM_2_CTR / ESMM_CTR 127.750 ESMM_5_CTR 128.620 ESMM_7_CTR 124.150 ESOS_CTR 118.400	

Area	Sector Name	Secondary Sectors	Remarks
Malmö ACC Sector 8	FL285 – FL365 Malmö AoR Sector 8 ESMM_8_CTR 128.170	ESMM_2_CTR / ESMM_CTR 127.750 ESMM_7_CTR 124.150 ESMM_5_CTR 128.620 ESOS_CTR 118.400	
Malmö ACC Sector 9	FL365 – UNL Malmö AoR Sector 9 ESMM_9_CTR 135.970	ESMM_3_CTR 128.050 ESMM_8_CTR 128.170 ESMM_2_CTR / ESMM_CTR 127.750 ESMM_7_CTR 124.150 ESMM_5_CTR 128.620 ESOS_CTR 118.400	
Within the lateral limits of Rönne TMA:	GND – 4500 ft MSL Rönne TWR	EKRN_TWR 118.320 EKDK_CTR 121.370	Callsign RÖNNE TOWER
	4500 ft MSL – FL195 Malmö AoR Sector L ESMS_APP 134.970	ESMM_K_CTR 131.270 ESMM_8_CTR 128.170 ESMM_2_CTR / ESMM_CTR 127.750 ESMM_5_CTR 128.620 ESMM_7_CTR 124.150 ESOS_CTR 118.400	

Note 1: Callsign for all ESMM and ESOS sectors is SWEDEN CONTROL.

3 Delegated Airspace

3.1 Airspace delegated from Bremen FIR/Rhein UIR to Sweden FIR

Note: The areas described below shall be depicted on radar displays used by EDWW/EDUU and ESMM.

3.1.1 Delegation of ATS from Bremen FIR/Rhein UIR (EDWW/EDUU) to Malmö AoR (ESMM)

3.1.1.1 Area RÖNNE SOUTH WEST

Lateral limits:	545500N 0134539E - 545500N 0142127E - 544000N 0141929E - 545500N 0134539E
Vertical limits:	FL155 – FL285 (Bremen ACC) FL285 – FL660 (Karlsruhe UAC)
Airspace classification:	C

3.2 Airspace delegated from Sweden FIR to Bremen FIR/Rhein UIR

Not applicable.

3.3 Special Areas

3.3.1 Delegation of ATS from Malmö AoR (ESMM) to Copenhagen FIR/UIR (EKDK)

3.3.1.1 Area H2 a

Lateral limits:	553356N 0124651E - 553101N 0125032E - 545500N 0125100E - Swedish/Danish border northward to - 553356N 0124651E
Vertical limits:	FL195 – FL660
Airspace classification:	C

3.3.1.2 Area H2 b

Lateral limits:	553101N 0125032E - 552201N 0130137E - 551458N 0125956E - 545500N 0130000E - 545500N 0125100E - 553101N 0125032E
Vertical limits:	FL195 – FL285
Airspace classification:	C

3.3.1.3 Area L3

Lateral limits:	551458N 0125956E - 545500N 0130000E - 545500N 0125100E - Swedish/Danish border northward to - 551402N 0124132E - 551458N 0125956E
Vertical limits:	3500 ft MSL – FL195
Airspace classification:	3500 ft MSL – FL95 Class E, FL95 – FL195 Class C

3.3.2 Delegation of ATS from Warsawa FIR/UIR (EPWW) to Malmö AoR (ESMM)

3.3.2.1 Area RÖNNE SOUTH a

Lateral limits: 545500N 0142127E - along SWEDEN FIR border eastward to - 545500N 0155200E - 544106N 0154309E - 543154N 0153312E - 543509N 0152654E - 543500N 0151400E - 543500N 0143945E - 544600N 0143530E - 544534N 0142012E - 545500N 0142127E
Vertical limits: FL195 – FL460
Airspace classification: C

3.3.2.2 Area RÖNNE SOUTH b

Lateral limits: 544600N 0143530E - 543500N 0143945E - 543500N 0151400E - 543509N 0152654E - 543154N 0153312E - 542306N 0152346E - 541545N 0150321E - 542000N 0141650E - 544534N 0142012E - 544600N 0143530E
Vertical limits: FL245 – FL460
Airspace classification: C

4 Procedures for Coordination

4.1 ATS Routes, Coordination Points and Flight Level Allocation

4.1.1 Flights from Malmö AoR (ESMM) to Bremen FIR/Rhein UIR (EDWW/EDUU)

ATS Route	COP	Level Allocation
M736	SALLO	Odd FL
M44	SALLO	Odd FL
M864	UNGAV	Even FL
N33	BIKRU	Odd FL

4.1.1.2 Flights from Bremen FIR/Rhein UIR (EDWW/EDUU) to Malmö AoR (ESMM)

ATS Route	COP	Level Allocation
M736	SALLO	Even FL
M44	SALLO	Even FL
Z400	BAKLI	Even FL
Z330	OKAGA	Odd FL
N33	BIKRU	Even FL
P12	DETNI	Odd FL

4.2 Special Procedures

Note 1: A "release" is an authorization for the accepting unit to climb, descend or turn (by not more than 45°) a specific aircraft before the transfer of control.

Note 2: Direct routes which differ from the flight planned route shall always be indicated by entering the name of the "direct to" fix in the aircraft tag scratchpad. Example: An aircraft cleared direct to BAKLI shall have "BAKLI" displayed in the scratchpad.

4.2.1 Flights from Sweden FIR to Bremen FIR/Rhein UIR

4.2.1.1 Flights from Malmö AoR (ESMM) to Bremen FIR/Rhein UIR (EDWW/EDUU)

General

- Traffic filed via PEROM may without coordination be routed DCT PEROM.
- Traffic filed via ARGAD may without coordination be routed DCT ARGAD.
- Traffic filed via POBOX may without coordination be routed DCT POBOX, with regard to EPWW FIR/UIR.

Departures from:

- EKCH/EKRK/ESMS via SALLO are cleared by ESMM to FL250, and are released to EDWW for climb to max FL280, 7 NM before the sector boundary.
- EKRN via UNGAV are cleared by ESMM to FL100.

Arrivals to:

- EDAH/EDBH/EDOP/ETNL/EDBN via SALLO are cleared by ESMM to FL270.
- EDAH/EDBH/EDOP/ETNL/EDBN via UNGAV are cleared by ESMM to FL280.

4.2.2 Flights from Bremen FIR/Rhein UIR to Sweden FIR

4.2.2.1 Flights from Bremen FIR/Rhein UIR (EDWW/EDUU) to Malmö AoR (ESMM)

General

- Traffic filed via ALM may without coordination be routed DCT ALM.
- Traffic filed via ELVIX may without coordination be routed DCT ELVIX.
- Traffic filed via ROE may without coordination be routed DCT ROE.

Traffic is released to ESMM for turn 15 NM before the sector boundary with regard to known traffic and EPWW.

Departures from:

- EDAH/EDBH/EDOP/ETNL/EDBN via SALLO and BAKIL are cleared by EDWW to FL280.
- EDAH/EDBH/EDOP/ETNL/EDBN via DETNI and OKAGA are cleared by EDWW to FL270.

Arrivals to:

- EKCH/EKRK/ESMS via BAKIL will by EDWW be given descent clearance to FL120, and shall pass the sector boundary at or below FL160.
- ESMK via BAKIL will by EDWW be given descent clearance to FL260.
- EKRN via DETNI will by EDWW be given descent clearance to FL110, and shall pass the sector boundary at or below FL150.

Traffic is released to ESMM for turn and descent 15 NM before the sector boundary.

4.3 FRA

4.3.1 Germany

Empty

4.3.2 Sweden

Free Route Airspace (FRA) applies within Denmark-Sweden Functional Airspace Block (DK-SE FAB) above FL285. Eligible flights shall use the Entry/Exit - points below.

Entry:
BAKIL, DETNI, BIKRU, OKAGA, SALLO

Exit:
BIKRU, SALLO, UNGAV

4.4 VFR

For controlled VFR flights coordination, transfer of control and transfer of communications shall take place as for IFR flights. Uncontrolled VFR flights shall be transferred to the appropriate sector, if in radio contact.

5 Transfer of Control and Transfer of Communications

5.1 Transfer of Control

Transfer of control takes place at the AoR boundary.

5.2 Transfer of Communications

5.2.1 Flights from Sweden FIR to Bremen FIR / Rhein UIR

5.2.1.1 Flights from Malmö AoR (ESMM) to Bremen FIR/Rhein UIR (EDWW/EDUU)

Transfer of communications shall normally take place 7 NM before the sector boundary and in no case later than the transfer of control.

5.2.2 Flights from Bremen FIR / Rhein UIR to Sweden FIR

5.2.2.1 Flights from Bremen FIR/Rhein UIR (EDWW/EDUU) to Malmö AoR (ESMM)

Transfer of communications shall normally take place 15 NM before the sector boundary and in no case later than the transfer of control.

6 Radar Based Coordination Procedures

6.1 SSR Code Assignment

Both ATS units shall transfer aircraft 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.

6.2 Radar Coordination Procedures

6.2.1 Transfer of Radar Control

Transfer of radar control may be effected after prior verbal coordination provided the minimum distance between the aircraft does not fall below **5 NM**.

6.2.2 Silent Transfer of Radar Control

Transfer of radar control may be effected without prior verbal coordination provided the minimum distance between successive aircraft about to be transferred is 10 NM and constant or increasing.

Note: When using mach-number speed control, pilots concerned shall be instructed to report their assigned mach-number to the accepting ATS unit upon initial contact.