Letter of Agreement

between

Berlin Regional Group / Rhein UIR and Sweden FIR

May 2011

Version 2

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 02/06/2011 and supersedes the Letter of Agreement between Bremen FIR / Rhein UIR and VACCSCA dated 02/07/2009.

Martin Loxbo	Nils Friedrich
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/UIR
Vertical limits:	GND – UNL

2.2 Sectorisation

2.2.1 Bremen FIR/Rhein UIR

GND – FL285:	*Bremen Müritz Sector* EDWW_M_CTR 124.175 (EDWW_B_CTR 123.225, EDWW_CTR 125.025, EDWW_A_CTR 123.925*, EDWW_W_CTR 128.750*) *Callsign BREMEN RADAR* **Only to be used with prior coordination*
FL285 – UNL:	*Rhein Ostsee Sector* EDUU_E_CTR 128.075 (EDWW_M_CTR 124.175, EDWW_B_CTR 123.225, EDWW_CTR 125.025, EDWW_A_CTR 123.925*, EDWW_W_CTR 128.750*) *Callsign RHEIN RADAR (BREMEN RADAR)* **Only to be used with prior coordination*

2.2.2 Sweden FIR

GND – FL285:	*Malmö AoR Sector L* (ESMM-L) ESMS_APP 134.975 (ESMM_K_CTR 124.850, ESMM_8_CTR 128.175, ESMM_7_CTR 124.150, ESMM_CTR 128.625, ESOS_CTR 118.400)
FL285 – FL355:	*Malmö AoR Sector 8* (ESMM-8) ESMM_8_CTR 128.175 (ESMM_6_CTR 128.055, ESMM_7_CTR 124.150, ESMM_CTR 128.625, ESOS_CTR 118.400)
FL355 - UNL:	*Malmö AoR Sector 9* (ESMM-9) ESMM_8_CTR 128.175 (ESMM_6_CTR 128.055, ESMM_7_CTR 124.150, ESMM_CTR 128.625, ESOS_CTR 118.400)

Within the lateral limits of Rönne TMA:

GND – 4500 ft MSL:	*Rönne TWR* EKRN_TWR 118.325 (EKDK_A_CTR/EKDK_CTR 135.275) *Callsign RÖNNE TOWER*
4500 ft MSL – FL195:	*Malmö AoR Sector L* (ESMM-L) ESMS_APP 134.975 (ESMM_K_CTR 124.850, ESMM_8_CTR 128.175, ESMM_7_CTR 124.150, ESMM_CTR 128.625, ESOS_CTR 118.400)

Note 1: Secondary frequencies within parenthesis ( ).
Note 2: Callsign for all ESMM and ESOS sectors is SWEDEN CONTROL.
Note 3: For frequencies where the sixth digit is 5 (e.g. 134.975), the final 5 shall on VATSIM be substituted with a 0 (zero) due to technical limitations (e.g. 134.970).

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 0141931E – 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

Lateral limits:	553356N 0124651E – 552201N 0130137E – 551458N 0125956E – 545500N 0130000E – 545500N 0125100E – FIR boundary – 553356N 0124651E
Vertical limits:	FL195 – UNL
Airspace classification:	C FL195 – FL660, G FL660 – UNL

3.3.1.2 Area L3

Lateral limits:	551458N 0125956E – 545500N 0130000E – 545500N 0125100E – FIR boundary – 551402N 0124132E – 551458N 0125956E
Vertical limits:	3500 ft MSL – FL195
Airspace classification:	E 3500 ft MSL – FL95, C FL95 – FL195

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

3.3.2.1 Area RÖNNE SOUTH

Lateral limits:	545500N 0142127E – FIR/UIR (Rönne TMA) boundary – 545500N 0155200E – 544106N 0154309E – 542306N 0152346E – 541545N 0150321E – 542000N 0141650E – 545500N 0142127E
Vertical limits:	FL195 – 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
(U)M736	SALLO	Odd FL
(U)M44	SALLO	Odd FL
(U)M864	UNGAV	Even FL
UN33	BIKRU	Odd FL

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

ATS Route	COP	Level Allocation
(U)M736	SALLO	Even FL
(U)M44	SALLO	Even FL
(U)Z400	BAKLI	Even FL
UN33	BIKRU	Even FL
(U)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)

- Traffic filed via SALLO – (U)M736 may without coordination be routed DCT PEROM.
- Traffic filed via SALLO – (U)M44 may without coordination be routed DCT ARGAD.
- Traffic filed via BIKRU – UN33 may without coordination be routed DCT POBOX, with regard to EPWW FIR/UIR.

Via SALLO:
- Flights departing from EKCH/EKRK/ESMS are cleared by ESMM-L to FL250, and are released to EDWW for climb to max FL280 when passing (abeam) BALOX.
- Flights with destination EDAH/EDBH/EDOP/ETNL/ETNU are cleared by ESMM-L to FL270.

Via UNGAV:
- Flights departing from EKRN are cleared by ESMM-L to FL100.
- Flights with destination EDAH/EDBH/EDOP/ETNL/ETNU are cleared by ESMM-L 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)

- Northbound traffic filed via ALM may without coordination be routed DCT ALM.
- Northbound traffic filed via BIKRU shall without coordination be routed DCT ELVIX. This traffic shall pass the AoR boundary at least 2,5 NM west of BIKRU.
- Traffic via UP12 may be cleared DCT ROE without coordination.
- Traffic planned via SALLO or BAKLI is released for turn after passing abeam ASDIN
- Traffic planned via UP12 released for right turn after passing at ASDIN/abeam ASDIN
- Northbound traffic planned via UN33 released for right turn after passing POBOX.

Via BAKLI:
- Flights with destination EKCH/EKRK/ESMS will by EDWW be given descent clearance to FL120, and shall pass the sector boundary at or below FL160.
- Flights with destination ESMK will by EDWW be given descent clearance to FL260.
- Traffic is released to ESMM-L for turn and descent 15 NM before the sector boundary.

Via BAKLI/SALLO:
- Flights departing from EDAH/EDBH/EDOPETNL/ETNU will by EDWW be given climb clearance to FL280.
- Traffic is released to ESMM-L for turn and descent 15 NM before the sector boundary.

Via DETNI:
- Flights with destination EKRN will by EDWW be given descent clearance to FL110, and shall pass the sector boundary at or below FL150.
- Flights departing from EDAH/EDBH/EDOP/ETNL/ETNU are cleared by EDWW to FL270.

4.3 VFR Flights
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 at/abeam BALOX/GIROR 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 at/abeam ASDIN 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.