



## LETTER OF AGREEMENT

between

Polish VACC  
Warszawa FIR

and

VATSIM Scandinavia  
Sweden FIR

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# 1. General

## 1.1. Purpose

The purpose of this Letter of Agreement (LoA) is to define the coordination procedures to be applied between Polish VACC 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 24 FEB 2022 and supersedes the Letter of Agreement between Polish VACC and Sweden FIR dated 28 MAR 2018.

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Piotr  
Warszawa FIR, Director  
Polish VACC

Martin Loxbo  
Sweden FIR, Director  
VATSIM Scandinavia

## 2. Areas of Responsibility & Sectorization

### 2.1. Areas of Responsibility

#### 2.1.1. Warszawa FIR

Lateral limits: Warszawa FIR as described in AIP Poland

Vertical limits: GND - FL660

#### 2.1.2. Sweden FIR

Lateral limits: Sweden FIR as described in AIP Sweden

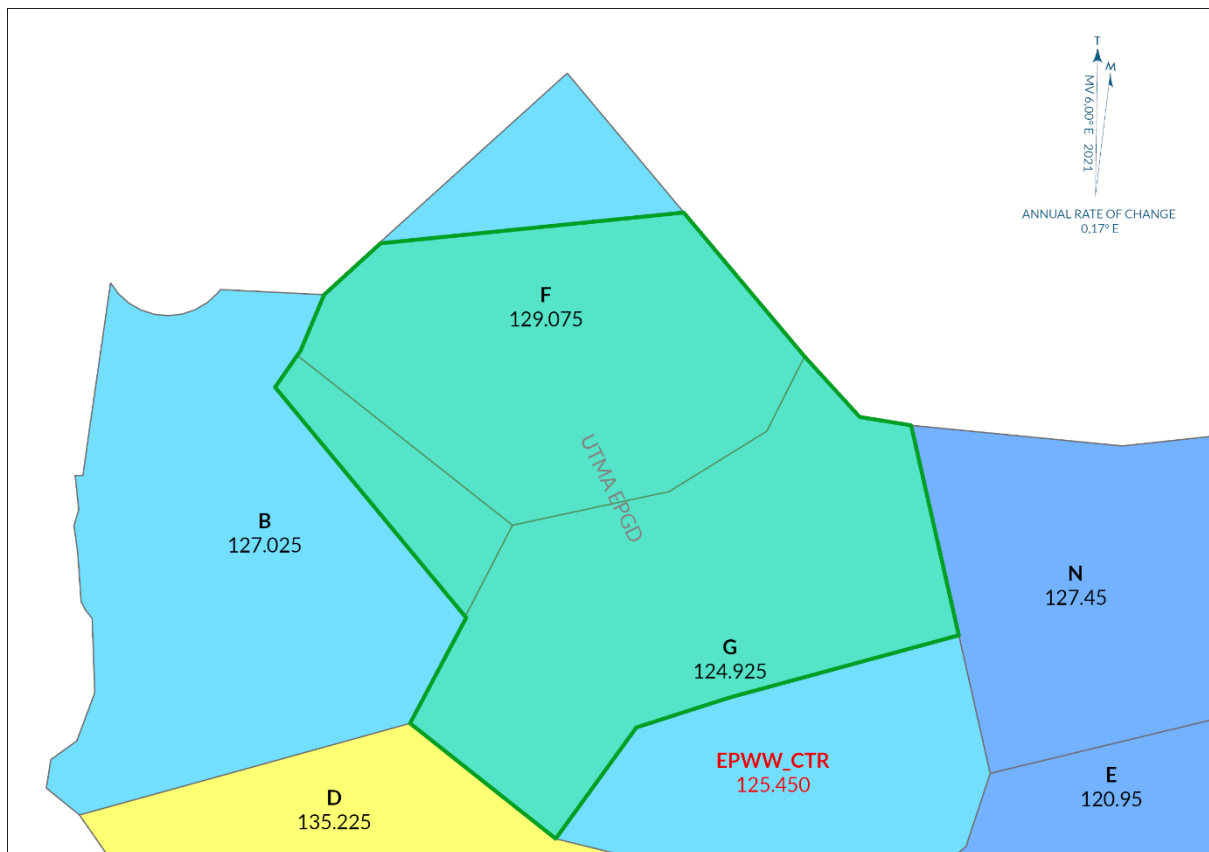
Vertical limits: GND - UNL

## 2.2. Sectorization

### 2.2.1. Sector Map

- **Black:** Upper-Level Sector
- **Red:** Lower Level Sector
- **Green:** Approach/Departure Sector
- **Blue:** Tower Sector

## 2.2.2. Sectors Warszawa FIR



### Sector Gdańsk Approach (AGD):

Lateral limits: UTMA and TMA EPGD

Vertical limits: GND - FL285

Responsible ATS unit (in order of precedence)

1.	EPGD_APP	(Gdańsk Approach)	129.075
2.	EPWW_F_CTR	(Warszawa Radar)	123.625
3.	EPWW_G_CTR	(Warszawa Radar)	124.925
4.	EPWW_N_CTR	(Warszawa Radar)	127.450
5.	EPWW_CTR	(Warszawa Radar)	125.450
6.	EPWW_U_CTR	(Warszawa Radar)	130.625

### Sector Warszawa B (BWW):

Lateral limits: ACC Warszawa sector B

Vertical limits: FL95 - FL365

Responsible ATS unit (in order of precedence)

- |    |            |                    |         |
|----|------------|--------------------|---------|
| 1. | EPWW_B_CTR | (Warszawa Radar)   | 127.025 |
| 2. | EPWW_G_CTR | (Warszawa Radar)   | 124.925 |
| 3. | EPWW_N_CTR | (Warszawa Radar)   | 127.450 |
| 4. | EPWW_CTR   | (Warszawa Radar)   | 125.450 |
| 5. | EPWW_U_CTR | (Warszawa Radar)   | 130.625 |
| 6. | EURE_FSS*  | (Eurocontrol East) | 135.300 |

\* — Eurocontrol covers sectors above FL245 only

### Sector Warszawa F (FWW):

Lateral limits: ACC Warszawa sector F

Vertical limits: FL95 - FL365

Above AGD: FL285 - FL365

Responsible ATS unit (in order of precedence)

- |    |            |                    |         |
|----|------------|--------------------|---------|
| 1. | EPWW_F_CTR | (Warszawa Radar)   | 129.075 |
| 2. | EPWW_G_CTR | (Warszawa Radar)   | 124.925 |
| 3. | EPWW_N_CTR | (Warszawa Radar)   | 127.450 |
| 4. | EPWW_CTR   | (Warszawa Radar)   | 125.450 |
| 5. | EPWW_U_CTR | (Warszawa Radar)   | 130.625 |
| 6. | EURE_FSS*  | (Eurocontrol East) | 135.300 |

\* — Eurocontrol covers sectors above FL245 only

Sector Warszawa B High:

Lateral limits: ACC Warszawa sector R

Vertical limits: FL365 - FL660

Responsible ATS unit (in order of precedence)

1.	EPWW_U_CTR	(Warszawa Radar)	130.625
2.	EPWW_B_CTR	(Warszawa Radar)	127.025
3.	EPWW_G_CTR	(Warszawa Radar)	124.925
4.	EPWW_N_CTR	(Warszawa Radar)	127.450
5.	EPWW_CTR	(Warszawa Radar)	125.450
6.	EURE_FSS	(Eurocontrol East)	135.300

Sector Warszawa F High:

Lateral limits: ACC Warszawa sector Z

Vertical limits: FL365 - FL660

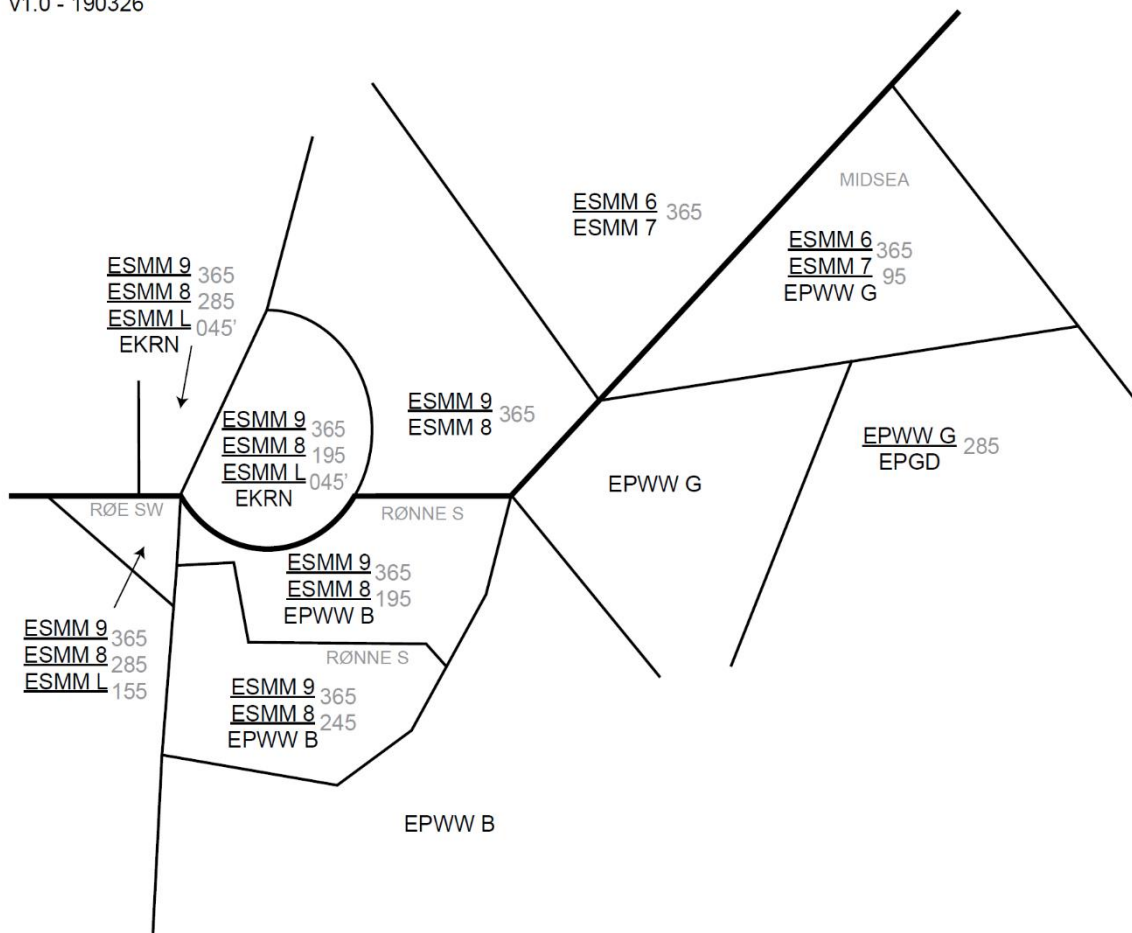
Responsible ATS unit (in order of precedence)

1.	EPWW_U_CTR	(Warszawa Radar)	130.625
2.	EPWW_F_CTR	(Warszawa Radar)	129.075
3.	EPWW_G_CTR	(Warszawa Radar)	124.925
4.	EPWW_N_CTR	(Warszawa Radar)	127.450
5.	EPWW_CTR	(Warszawa Radar)	125.450
6.	EURE_FSS	(Eurocontrol East)	135.300



## 2.2.3. Sectors Sweden FIR

v1.0 - 190326



### Sector Rønne TWR:

Lateral limits: Rønne TMA

Vertical limits: GND - 4500 ft AMSL

Responsible ATS unit (in order of precedence)

1. EKRN\_TWR (Rønne Tower) 118.325
2. EKDK\_B\_CTR (Copenhagen Control) 121.375
3. EKDK\_V\_CTR (Copenhagen Control) 126.050

### Sector ESMM L:

Lateral limits: Rönne TMA

Vertical limits: 4500 ft AMSL – FL195

Responsible ATS unit (in order of precedence)

1.	ESMS_APP	(Sweden Control)	134.975
2.	ESMM_K_CTR	(Sweden Control)	131.275
3.	ESMM_8_CTR	(Sweden Control)	128.175
4.	ESMM_2_CTR	(Sweden Control)	127.750
5.	ESMM_5_CTR	(Sweden Control)	128.625
6.	ESMM_7_CTR	(Sweden Control)	124.150
7.	ESOS_CTR	(Sweden Control)	118.400

### Sector ESMM 6:

Lateral limits: East of E016.14.00

Vertical limits: FL365 - UNL

Responsible ATS unit (in order of precedence)

1.	ESMM_6_CTR	(Sweden Control)	135.800
2.	ESMM_3_CTR	(Sweden Control)	128.050
3.	ESMM_7_CTR	(Sweden Control)	124.150
4.	ESMM_8_CTR	(Sweden Control)	128.175
5.	ESMM_2_CTR	(Sweden Control)	127.750
6.	ESOS_CTR	(Sweden Control)	118.400

### Sector ESMM 7:

Lateral limits: East of E016.14.00

Vertical limits: GND – FL365

Responsible ATS unit (in order of precedence)

1.	ESMM_7_CTR	(Sweden Control)	124.150
2.	ESMM_6_CTR	(Sweden Control)	135.800
3.	ESMM_8_CTR	(Sweden Control)	128.175
4.	ESMM_2_CTR	(Sweden Control)	127.750
5.	ESOS_CTR	(Sweden Control)	118.400

### Sector ESMM 8:

Lateral limits: West of E016.14.00

Vertical limits: GND – FL365

Responsible ATS unit (in order of precedence)

1.	ESMM_8_CTR	(Sweden Control)	128.175
2.	ESMM_2_CTR	(Sweden Control)	127.750
3.	ESMM_7_CTR	(Sweden Control)	124.150
4.	ESMM_5_CTR	(Sweden Control)	128.625
5.	ESOS_CTR	(Sweden Control)	118.400

### Sector ESMM 9:

Lateral limits: West of E016.14.00

Vertical limits: FL365 - UNL

Responsible ATS unit (in order of precedence)

6.	ESMM_9_CTR	(Sweden Control)	135.975
7.	ESMM_3_CTR	(Sweden Control)	128.050
8.	ESMM_8_CTR	(Sweden Control)	128.175
9.	ESMM_2_CTR	(Sweden Control)	127.750
10.	ESMM_7_CTR	(Sweden Control)	124.150
11.	ESMM_5_CTR	(Sweden Control)	128.625
12.	ESOS_CTR	(Sweden Control)	118.400

### 3. Delegated airspace

#### 3.1. Airspace delegated from FIR Warszawa to Sweden FIR

##### 3.1.1. Delegation of ATS from FIR Warszawa (EPWW) to Malmö AoR (ESMM)

###### 3.1.1.1. Area MIDSEA

Lateral limits: 555100N 0173300E - 551724N 0182353E -  
550801N 0161410E - 555100N 0173300E  
Vertical limits: FL95 - FL460  
Airspace classification: C

###### 3.1.1.2. 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

###### 3.1.1.2. 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

#### 3.2. Airspace delegated from Sweden FIR to FIR Warszawa

Not applicable

## 4. Procedures for Coordination

### 4.1. ATS Routes and Flight Level Allocation

Standard flight level allocation is to be used on all routes.

*Note: Standard flight level allocation (in RVSM airspace) means that aircraft on eastbound routes (magnetic track 360°-179°) are to use odd flight levels and westbound flights (magnetic track 180°-359°) are to use even flight levels.*

### 4.2. Special Procedures

*Note: 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.*

#### 4.2.1. Flights from Sweden FIR to Polish VACC

##### 4.2.1.1. Flights from Malmö AoR (ESMM) to Warsawa FIR/UIR (EPWW)

###### **EPGD arrivals**

ESMM shall clear traffic with destination EPGD via COP MOTAD and RIVDI to FL270 to cross COP or abeam at FL290 or below, or at cruise level if lower. Transfer of communication shall be made to EPGD APP. The traffic is released to EPGD APP for descent and turn with regard to known traffic and activated D-areas.

Traffic with destination EPGD via COP ELPOL and RUMAR, at FL290 or above, is released by ESMM to EPWW for descent and turns 20 NM from AoR boundary with regard to known traffic and activated D-areas.

###### **EPSC arrivals**

Traffic with destination EPSC via COP XELOL will be cleared by ESMM to FL190, or at cruise level if lower, to cross COP or abeam at FL290 or below.

###### **EKCH and ESMS departures**

EPWW will regard traffic from EKCH and ESMS as climbing to the coordinated flight level.

## 4.2.2. Flights from Polish VACC to Sweden FIR

### 4.2.2.1. Flights from Warszawa FIR/UIR (EPWW) to Malmö AoR (ESMM)

#### **EPGD departures**

Departing traffic from EPGD via COP MOTAD shall be cleared to FL260 or cruise level if lower. The traffic is released to ESMM for climb to FL280 and turns with regard to known traffic and activated D-areas. Further climb and turn shall be coordinated with EPWW.

Departing traffic from EPGD via COP DEVEL and RUMAR shall be cleared by EPWW to FL300 or cruise level if lower. This traffic is released to ESMM for climb and turn with regard to known traffic and activated D-areas.

#### **Northbound traffic filed via L617 and M70**

Northbound traffic filed via L617 and M70 shall be regarded as one flow of traffic. Required radar separation shall be constant or increasing measured from KOLOB.

#### **North- and northwestbound traffic**

North- and northwestbound traffic is released to ESMM for turn and traffic with destination EKCH or ESMS for turn and descent 20 NM before the AoR boundary with regard to known traffic and activated D-areas.

Northbound traffic may, by EPWW or EPGD APP, be given clearance direct to the respective waypoint below, without coordination with ESMM, provided that the waypoint is in the FPL route of the aircraft:

GOSOT, KOLOB, GORPI, LUSID, PENOR, ROE

## 4.3. FRA

### 4.3.1. Poland

Free Route Airspace (FRA) applies within FIR Warszawa above FL95, excluding TMAs.

### 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/Exit:

AMROR, GORPI, GOSOT, KOLOB, LARMA, LUSID, PENOR, POKEN, RUMAR

## 4.4 . 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 AoR to Polish VACC

##### 5.2.1.1. Flights from Malmö AoR (ESMM) to Warszawa FIR/UIR (EPWW)

Transfer of communications shall take place not later than the transfer of control.

#### 5.2.2. Flights from Polish VACC to Sweden FIR

##### 5.2.2.1. Flights from Warszawa FIR/UIR (EPWW) to Malmö AoR (ESMM)

Transfer of communications shall take place not later than 20 NM before the AoR boundary.



## 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 EPWW or EPGD APP may only take place after the transfer of control point.

Any change of SSR code by ESMM may take place at the earliest 20 NM before the AoR boundary.

### 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 7 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.*