

## Letter of Agreement

between

Munich FIR (EDMM)

Zürich FIR (LSAZ)

and

IVAO Germany

IVAO Switzerland

Effective: 02-APR-2015

Edition: 1.1

### **1 Document purpose**

The purpose of this Letter of Agreement is to define the coordination procedures to be applied between Munich FIR and Zürich FIR when providing ATS to General Air Traffic (GAT) and/or Operational Air Traffic (OAT), both operating either under Instrument Flight Rules (IFR) or Visual Flight Rules (VFR).

### **2 General procedures**

Traffic in sequence shall be handed over with minimum spacing of 10 NM constant or increasing (succeeding aircraft is not faster). Coordination of speed control should be done via entries in radar labels and does neither need approval nor acknowledgement by receiving sector. Transferred aircraft are generally released for turns up to 45° by transferring sector. Climbing and descending sector entries are subject to prior approval. For this reason traffic may be handed over at an intermediate level. Cruising levels shall be assigned in accordance with AIP of the country in question. Exceptions are laid down in this letter.

Unless a release is obtained, the receiving ATS unit shall not give aircraft a clearance or instruction to climb, descend or change speed until it has passed the common border. If an aircraft is released, the transferring sector remains responsible for separation.

Transfer of communication shall take place in due time and clear of possible conflicts.

### **3.1 ATS units**

<b>Login</b>	<b>Callsign</b>	<b>Frequency in MHz</b>
EDMM_S_CTR	Muenchen Radar	129.100
EDMM_SW_CTR	Muenchen Radar	124.825
EDMM_CTR	Muenchen Radar	136.225
EDNY_TWR	Friedrichshafen Tower	120.075
LSAZ_NSL_CTR	Swiss Radar	136.150
LSAZ_SSL_CTR	Swiss Radar	128.050
LSAZ_M1_CTR	Swiss Radar	133.050
LSAS_LM1_CTR	Swiss Radar	133.405
LSZH_W_APP	Zurich Arrival	118.000
LSZH_E_APP	Zurich Arrival	135.225

### **3.2 Area of responsibility**

The ATS unit in charge of Muenchen FIR is Muenchen Radar.

EDMM\_CTR is a consolidated ATC position including EDMM\_N\_CTR and EDMM\_S\_CTR and covers the complete FIR area.

EDMM\_S\_CTR may be deconsolidated into EDMM\_SE\_CTR and EDMM\_SW\_CTR during events whereas EDMM\_SW\_CTR is responsible for the adjacent airspace of Zurich FIR.

The ATS unit in charge of Zürich FIR is Swiss Radar.

LSAS\_LM1\_CTR is a consolidated ATC position which covers the full Swiss Radar airspace in absence of other positions.

LSZH\_APP covers Arrival responsibilities for Zurich TMA: LSZH/MD/ZR/ME/EDNY. The vertical limit of Zurich Arrival is FL125.

There are 3 configurations for Swiss Radar on the Zurich FIR that are activatable:

*Config. 3*

LSAZ\_NSL\_CTR takes responsibility of traffic on the west side of Zurich FIR from GND to FL245. It does not influence operations between Zurich FIR and Muenchen FIR.

LSAZ\_SSL\_CTR takes responsibility of traffics inbound and outbound Zurich FIR from GND to FL245.

LSAZ\_M1\_CTR takes responsibility of traffics inbound and outbound Zurich FIR (transits) from FL245 to UNL.

*Config. 2*

LSAZ\_SSL\_CTR takes responsibility of traffic inbound and outbound Zurich FIR from GND to FL245.

LSAZ\_M1\_CTR takes responsibility of traffics inbound and outbound Zurich FIR (transits) from FL245 to UNL.

*Config. 1a*

LSAZ\_SSL\_CTR takes responsibility of traffics inbound and outbound Zurich FIR from GND to UNL.

*Config. 1b*

LSAZ\_SSL\_CTR takes responsibility of traffic inbound and outbound Zurich FIR from GND to FL245.

LSAS\_LM1\_CTR takes responsibility of traffics inbound and outbound Zurich FIR (transits) from FL245 to UNL.

Swiss Radar shall announce the configuration to Muenchen Radar.

Zurich Arrival has been split into East and West based on amount of traffic inbound Zurich. LSZH\_W\_APP is the first position to be opened and the most common to be online at any time. If alone the controller is responsible for all arrivals of LSZH, LSZR and EDNY. LSZH\_E\_APP is the second controller to be online. The configuration with 2 controllers leaves all the inbound traffic direct to LSZH, LSZR and EDNY with LSZH\_E\_APP instead of LSZH\_W\_APP.

Zurich Arrival shall announce the configuration to Muenchen Radar.

## **4 Standing agreements**

### 4.1.1 Traffic departing from Muenchen FIR

- None.

### 4.1.2 Traffic with destination in Muenchen FIR

- Flights with destination EDDM shall be transferred at FL310 or lower direct NUNRI, released by transferring sector.
- Flights with destination LOWI shall be transferred at FL250, released by transferring sector.

### 4.2.1 Traffic departing from Zürich FIR

- Flights departing LSZH via T103/Z2/UN871 shall be transferred climbing to FL240.
- Flights departing LSZR via XEBIX/KPT shall be transferred climbing to FL190.
- Flights departing EDNY via XEBIX/KPT should be transferred at FL130.

### 4.2.2 Traffic with destination in Zürich FIR

- Flights with destination LSZH shall be transferred at FL200 inbound RAVED to Swiss Radar. If Swiss Radar is offline and Zurich Arrival is online the traffic is released at FL200. Zurich Arrival will monitor the descend until inside its airspace.
- Flights with destination EDNY should be transferred when crossing KPT at FL080 when runway 24 in use or FL120 when runway 06 in use.
- Flights with destination LSZR should be transferred at FL140 outbound KPT.
- Flights with destination LFSB should be transferred at FL280 or higher.

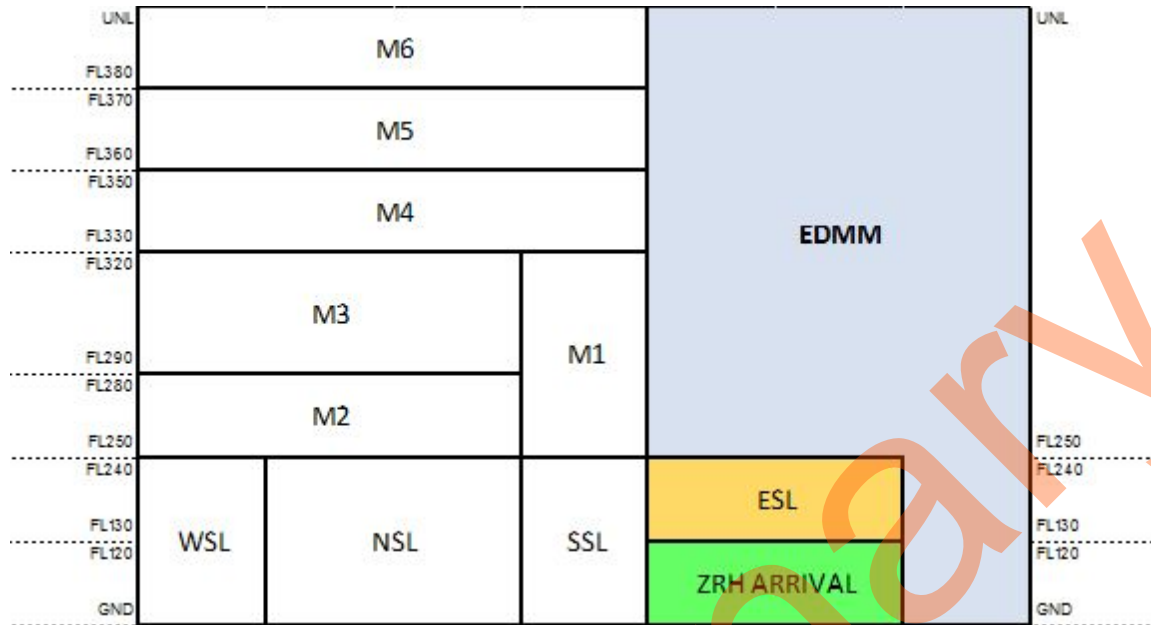
## 5. Special areas

### 5.1 Airspace delegated from Muenchen FIR to Zürich FIR

Lateral limits:



Vertical limits: GND – FL245



### 5.2 Delegated operations at Friedrichshafen (EDNY)

Friedrichshafen is part of Muenchen FIR. However IFR departures and arrivals are delegated to LSZH\_E\_APP or LSZH\_W\_APP if the former is not online.

EDNY\_TWR remains at Muenchen FIR's responsibility generally.

If EDNY\_TWR is not online, Zurich Arrival takes responsibility of operations within the control zone and on the ground also.

### 5.3 Airspace delegated from Zürich FIR to Muenchen FIR

N/A

## **Annex Y: Coordination standards**

For coordination with adjacent units the phrases described below shall be used:

**Approval Request:** Request from an ATS unit to the ATS unit concerned for an approval to deviate from agreed procedures. For example:

- Coordination of a direct routing
- Approval request to cross/use an airspace of an unit not involved in the normal flight profile of the mentioned aircraft (“airspace crossing”)
- Transfer of an aircraft not at agreed level
- Transfer of an aircraft in vertical movement

Phraseology example: *“approval request to cross your airspace, \*callsign\*, \*position\*, \*level\*, to proceed direct \*waypoint\*, descending \*level\*” - “approved / approved, not below \*level\* / not approved”*

**Release:** An authorisation by the transferring unit to the accepting unit to climb/descend/turn/control speed (of) a specific aircraft before the point of transfer of control.

Phraseology example: *“request release (for climb/turn/...) \*callsign\*” - “released (for climb/turn/for left turns only/...)”*

**Request:** A specific request by the accepting unit to the transferring unit regarding an aircraft.

Phraseology example: *“request \*callsign\* direct \*waypoint\*/heading \*heading\*/climbing \*level\*/descending \*level\*/speed \*speed\*”*

Controllers may also coordinate general approvals/releases deviating from agreed procedures.

## **Annex Z: Definitions**

**Area of Responsibility (AoR):** An airspace of defined dimensions where a specific ATS unit has responsibility for providing ATS.

**Transfer of control:** Receiving unit takes over responsibility for separation.

**Transfer of communication:** The instruction for a pilot to contact the next unit.

**General Air Traffic (GAT):** All flights which are conducted in accordance with the rules and procedures of ICAO and/or the national civil aviation regulations and legislation.

**Operational Air Traffic (OAT):** All flights which do not comply with the provisions stated for GAT and for which rules and procedures have been specified by appropriate national authorities. Usually used by state aircraft.

Paragraphs using the wording “shall” represent a **mandatory** procedure.

Paragraphs using the wording “should” represent a **recommended** procedure.

Paragraphs using the wording “may” represent an **optional** procedure.