ENR 1.3 INSTRUMENT FLIGHT RULES

1. Procedures for RVSM flights

Where an ACFT's **altitude reporting system displayed level (Transponder mode C/S ADS_B)** differs from the reported FL by 200 ft or more, the controller shall inform the pilot accordingly and the pilot shall be requested to check the pressure setting and confirm the ACFT's level.

2. Special procedures for IFR flights (Z and Y) within FIR Switzerland (LSAS)

2.1 Departures

Flight plans are to be submitted in accordance to FPL REF: ENR 1.10.

When a Z FLT commences from a Swiss AD with a joining point within FIR Switzerland, this FLT shall be notified immediately before TKOF by TEL to:

- ACC Zurich (for FLTs joining within the CTA Zurich),
  TEL +41 (0) 43 931 69 65, or to
- ACC Geneva (for FLTs joining within the CTA Geneva),
  TEL +41 (0) 22 747 13 91.

The above mentioned services transmit a transponder code which shall be operated at TKOF, as well as the FREQ to call for ATC clearance.

Due to regulation measures, a TKOF slot allocation for Z-flights is possible. The adherence to a received TKOF slot (CTOT) is compulsory. The responsibility lays with the Pilot in command.
Additionally, Pilot in command shall request the activation of the flight plan by transmitting the time of departure upon initial contact with the appropriate ATS unit.

Joining-clearance may be denied or delayed by ATC for flights which are not pre-announced by TEL or not respecting their TKOF slot (CTOT). Ref to: ENR 1.9.4. (AIR TRAFFIC FLOW MANAGEMENT AND AIRSPACE MANAGEMENT Chapter 4)

ATC clearances will be given by TEL only in exceptional cases.

For local procedures, contact the relevant AD authority.

2.2 General procedures for Z/Y FLTs from and to LSZL

FPL concerning Z/Y flights from and/or to LSZL shall additionally be addressed to LSZAZTZX.

Whenever active, LSZL ATC will carry out the coordination for Z flights described in ENR 1.3.2.1, providing the flight crew with a transponder code and the frequency for the IFR joining, in addition to other relevant information.

2.2.1 Southbound Z FLTs departing from LSZL

Southbound FLTs may join IFR either over LUGAN or a WPT within the AoR (Area of Responsibility) of MILANO.

Departures intending to join a LSZA SID are coordinated either by Locarno TWR or by Locarno AD authority (outside ATS service hours) with Lugano TWR/APP, when active. After departure, flights shall proceed under VFR towards LUGAN and hold outside CTR, until contact with Lugano TWR/APP is established.

Departures intending to join IFR within MILANO AoR (not LUGAN), or if Lugano TWR/APP is not active, are coordinated by Locarno TWR or by Locarno AD authority (outside ATS service hours) with MILANO FIC.

2.2.2 Northbound Z FLTs departing from LSZL

Northbound FLTs should climb under VFR towards the north, to join IFR within the airway system. Coordination procedures with ACC Zurich according to ENR 1.3.2.1 apply.

If the meteorological conditions do not permit the above-mentioned procedure, the FLT may join a LSZA SID towards the north, according to the procedure described in ENR 1.3.2.2.1.

2.2.3 Y FLTs to LSZL

Such FLTs should preferably file "PINIK" or any other WPT within TMA Milano or CTA Zurich, as the WPT at which the change from IFR flight to VFR flight may be executed.

After their change from IFR to VFR, such FLTs may expect to cross CTR Lugano either via MEZZO or via W-Luino.

If continuation of the FLT under VFR is not possible, Lugano TWR/APP may issue an IFR APCH CLR to land at LSZA.

3. Clearance to fly maintaining own separation in VMC (VMC climb/descent)

When so requested by an ACFT, a controlled FLT operating in VMC may be cleared to climb or descend, subject to maintaining its own separation from other ACFT and remaining in VMC, provided the following conditions are fulfilled:

a. the VMC climb/descent clearance may be delivered O/R only if the FLT crew of the other ACFT agrees to the use of the procedure;
b. the VMC climb/descent clearance may be delivered during the HR of daylight only;
c. essential traffic information will be given by ATC to the ACFT concerned.

4. Expected Approach Time (EAT)

An EAT is transmitted to an ACFT only O/R of the pilot, or if it is likely that the delay will be 10 MIN or more. The EAT will only be revised if the transmitted time is likely to change by more than 5 MIN.

5. Radio communication failure during IFR flights

Arriving ACFT whose DEST point is located in Switzerland shall PCD in accordance with the instructions contained in the STAR charts, in the AD 2.24 section.
Departing ACFT under pilot's NAV shall PCD in accordance with the instructions contained in the SID charts, in the AD 2.24 section.
Departing ACFT being vectored by radar away from the route specified in its current FLT plan shall PCD in the most direct manner to the route specified in the current FLT plan.

6. Reduced reporting procedures

Radiotelephony procedures employed by pilots of IFR FLTs within Swiss area of jurisdiction:

a. The initial call after a change of radio FREQ will only contain ACFT IDENT and actual FL, indicating the cleared FL for ACFT in climb or descent;
b. Any PSN report, if required subsequently, will only contain ACFT IDENT, PSN and time over;
c. If assigned a speed requirement, the FLT crew shall report this in the initial call.

7. Rate of climb/descent

Should a pilot for any reason not be able to comply with the ROC/ROD cleared by ATC, he shall inform the controller immediately.
Depending on the phase of FLT, the procedures specified below are applicable to all ACFT whose PER data allows these procedures to be met:

- level changes ENR:
  during descent, a rate of between 1000-2500 ft/min is expected and should be complied with (except within the last 1000 ft to the cleared FL, the rate should not exceed 1000 ft /min) and similarly, ACFT CMB the cleared FL, the ROC within the last 1000 ft should not exceed 1000 ft/min either;
- level changes in HLDG patterns:
  a ROD of 1000 ft/min or less is expected and should be complied with;
- descent on STAR's:
  a rate of between 1500-2500 ft/min is expected and should be complied with;
- LVE IAF under radar vectors:
  unless otherwise specified by ATC, the ROD is at pilot's discretion.
- any DEV from the above mentioned rates, if deemed necessary by the pilot, shall be communicated to ATC immediately.

8. RNAV procedures

8.1 RNAV 5 procedures

RNAV 5 (B-RNAV) routes are designed in accordance with the EUROCONTROL B-RNAV criteria. However, in accordance with the ICAO Doc 9613 Performance-based Navigation (PBN) Manual, these routes are published within the Swiss Airspace in compliance with the RNAV 5 requirements.
In AIP Switzerland, the terms “RNAV 5” and “B-RNAV” have the same meaning.
RNAV equipment may use the input from one or a combination of the following types of position sensors:
VOR/DME, DME/DME, INS/IRS and GNSS. However, the availability of VOR/DME is not assured in Swiss airspace. Request radar vectoring in case of RNAV position unavailability.

8.2 RNAV 1 procedures

RNAV 1 (P-RNAV) procedures are designed in accordance with the ICAO Doc 8168 PANS-OPS RNAV 1 criteria.
In AIP Switzerland, the terms “RNAV 1” and “P-RNAV” have the same meaning.

8.3 RNAV Routes

ACFT, other than State ACFT, operating on ATS routes* within FIR/UIR Switzerland at and above FL 100 shall be equipped with, as a MNM, RNAV equipment meeting RNAV 5 (B-RNAV) in accordance with the requirements set out in ICAO Doc 7030 Regional Supplementary Procedures (EUR, chapter 4, 4.1.1.2.3).
Aircraft operators shall ensure that the navigation equipment fulfils the requirements of the flight-planned routing.

* An ATS route is defined in ICAO Annex 11 as follows:
A specified route designated for channelling the flow of traffic as necessary for the provision of ATS.
The term ”ATS route” is used to mean variously AWY, advisory route, controlled or uncontrolled route, ARR or DEP route, etc.

8.3.1 Fixed RNAV routes

These are permanently published ATS routes which shall be FLT-planned for use by RNAV equipped ACFT. They are identified by route designators in accordance with ICAO Annex 11.

8.3.2 Contingency RNAV routes

These are temporarily published ATS routes which can be FLT-planned for use by appropriately equipped ACFT. They are identified by route designators in accordance with ICAO Annex 11. These routes will be published for cases of specific need only (e.g. outage of NAV facilities, activation of temporarily reserved airspace).

8.3.3 Random RNAV routing

These routings are unpublished tracks which may be FLT-planned within designated and published random RNAV areas. For the time being there are no such areas designated within Switzerland.

8.3.4 Other applications of RNAV

There are specific direct routings assigned by ATC or on pilots’ requests.

8.4 RNP 0.3 procedures for helicopter

RNP 0.3 routes (KYxyz) and associated routes (KQxyz) are designed for helicopter operation within Swiss Airspace in accordance with ICAO DOC 9613 Performance-based Navigation (PBN) Manual and DOC 8168.

9. Free Route Airspace – General procedures

9.1 Definitions

9.1.1 FRA

A specified airspace within which users may freely plan a route between a defined entry point and a defined exit point, with the possibility to route via intermediate (published or unpublished) waypoints, without reference to the ATS route network, subject to airspace availability. Within this airspace, flights remain subject to air traffic control.

9.1.2 FRA significant points

FRA horizontal entry point (E)
A published significant point on the horizontal boundary of the Free Route Airspace from which FRA operations are allowed. The FRA relevance of such points is included in ENR 4.1/4.4 columns as (E).

FRA horizontal exit point (X)
A published significant point on the horizontal boundary of the Free Route Airspace to which FRA operations are allowed. The FRA relevance of such points is included in ENR 4.1/4.4 columns as (X).

FRA horizontal intermediate point (I)
A published significant point or unpublished point, defined by geographical coordinates or by bearing and distance via which FRA operations are allowed. Intermediate points may be used to connect FRA operations to ATS route network. If published, the FRA relevance of such points is included in ENR 4.1/4.4 columns as (I).

FRA arrival connecting point (A)
A published significant point to which FRA operations are allowed for arriving traffic to specific aerodromes.
The FRA relevance of such points is included in ENR 4.1/4.4 columns as (A).

FRA departure connecting point (D)
A published significant point from which FRA operations are allowed for departing traffic from specific aerodromes.
The FRA relevance of such points is included in ENR 4.1/4.4 columns as (D).

9.2 Area of application

Skyguide provides ATS in areas above Switzerland and in delegated areas above Austria, Germany, Italy and France. These combined areas comprise Skyguide's Area of Responsibility (AoR).
LSASFRA is a Free Route Airspace area created within the entire lateral limits of Skyguide's AoR. FRA procedures are available H24 above FL195 up to FL660 within LSASFRA Part 1 and up to FL245 within LSASFRA Part 2 as detailed in ENR 2.2 and ENR Charts.

Italian Free Route Airspace volume "FRAIT" as described in AIP Italy ENR 2.2 extends over Swiss territory. Flights within FRAIT shall comply with the flight planning requirements defined in AIP Italy ENR 1.10.

French Free Route Airspace volume "LFFRAE" as described in AIP France ENR 2.2 extends over Swiss territory.
Flights within LFFRAE shall comply with the flight planning requirements defined in AIP France ENR 1.10.

9.3 FRA procedures

9.3.1 General

Within FRA flights may be planned DCT between significant points and/or radio navigation aids published in ENR 4.1/4.4.
There is no restriction on the maximum DCT distance.
The use of unpublished points defined by geographical coordinates or by bearing and distance is not allowed.

9.3.2 Overflying traffic

Within LSASFRA aircraft operators can freely plan a route between a defined FRA Horizontal Entry Point (E) and a defined FRA Horizontal Exit Point (X), with the possibility to route via FRA Intermediate Points (I), without a reference to the ATS route network, subject to airspace availability.

9.3.3 Access to/from terminal airspace

Vertical entry and exit to/from the LSASFRA is made possible via the connection of ATS route segments connected to FRA significant points mentioned above. These ATS route segments are in turn connected to the SIDs or STARs of the various aerodromes. The available FRA connections between significant points and/or radio navigation aids to the ATS route network are published in the Route Availability Document (RAD).

9.3.4 Cross-border application

9.3.4.1 FRA Germany

Cross border FRA application is available between LSASFRA and DFS FRA Cells EDUU East, EDUU West and EDMM South. Flights between these areas are not required to file a FRA horizontal entry or exit point (E, X), rather the use of a FRA intermediate point (I), that is situated near the boundary and published in ENR 4.1 or ENR 4.4 is possible. It is not allowed to plan from a FRA significant point inside LSASFRA to a location described by geographical coordinates inside DFS FRA and vice versa. Only significant points as published in AIP ENR 4.1 or ENR 4.4 are permitted. Specific restrictions on the use of the FRA intermediate points (I) between the FRA areas are defined in the RAD if necessary.

9.3.4.2 FRA France

Cross border FRA application is available between LSASFRA and French FRA Cell LFFRAE. Flights between these areas are not required to file a FRA horizontal entry or exit point (E, X), rather the use of a FRA intermediate point (I), that is situated near the boundary and published in ENR 4.1 or ENR 4.4 is possible. It is not allowed to plan from a FRA significant point inside LSASFRA to a location described by geographical coordinates inside LFFRAE and vice versa. Only significant points as published in AIP ENR 4.1 or ENR 4.4 are permitted. Specific restrictions on the use of the FRA intermediate points (I) between the FRA areas are defined in the RAD if necessary.

9.3.5 Airspace reservation – special areas

In general, aircraft operators will plan their trajectory around reserved or segregated airspace, when not available for civil operations, by using the relevant FRA intermediate points (I) published for this purpose in ENR 4.4.
Flights may be planned through AMC-manageable restricted airspaces (RSAs) according to the European Airspace Use Plan/ European Updated Airspace Use Plan (EAUP/EUUP); subject to the rules that are specified in RAD Annex 2C.

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