



HLAPB

Airspace Booking Principles

Document Versions

Version: 1.1	Date: 28.06.2022	Status: <input type="checkbox"/> Draft <input checked="" type="checkbox"/> In force
---------------------	-------------------------	---

Version	Date	Reason for Change	Author
1.0	09.02.2022	Finalisation of the draft	HLAPB BP & AM ET
1.0	16.02.2022	Endorsement of the final draft	HLAPB RT
1.1	28.06.2022	Insertion of allocation rules for TRA EAST A9 PLUS and TRA EUC25 SWISS PLUS and minor editorial amendments	HLAPB AM ET

Abbreviation	Meaning

Goal

This document aims at the definition of airspace booking principles, which shall be applied for the:

- planning of an activity (mission/event) that requires the reservation of airspace (having as a final result the submission of an airspace reservation request); and
- allocation of requested airspace.

Consequently, these principles represent enablers for air traffic service units and airspace users to make the best use of the available airspace.

Introduction

The HLAPB is according to its mandate the body responsible for ensuring strategic airspace management in Switzerland by performing tasks described in Articles 4, 5 and 8 of the Commission Regulation (EC) No 2150/2005. Consequently, the HLAPB is among other things responsible for:

- ensuring the overall application of the flexible use of airspace concept at strategic, pre-tactical and tactical level.
- approving the activities, which require airspace reservation or restriction.
- defining of the temporary airspace structures and procedures to offer multiple airspace reservation and route options.
- establishment of an airspace management cell (AMC) to allocate airspace in accordance with the conditions and procedures defined in Article 4(1) of the Commission Regulation (EC) No 2150/2005.

The HLAPB makes sure that the coordination between civil and military stakeholders is organised through the establishment of agreements and procedures in order to:

- increase safety;
- increase airspace capacity; and
- improve efficiency and flexibility of aircraft operations.

In Switzerland, airspace reservation can be requested on either strategic (ASM Level 1), pre-tactical (ASM Level 2) or tactical (ASM Level 3) level.

Scope of the document

This document consists of the following parts:

- Airspace booking principles;
- Airspace reservation principles; and
- Airspace allocation rules.

Airspace booking principles

TRA combinations

In Switzerland TRAs may be combined to larger areas, depending on their geographical locations. This brings not only operational benefits but allows also a more efficient coordination and communication between affected operational units (MIL and CIV). The following areas are defined:

Name of TRA combination	List of TRAs included in TRA combination
EUC25 SWISS	EUC25SL EUC25SM EUC25SH
EUC25 SWISS LOW	EUC25SL EUC25SM
EUC25 SWISS HIGH	EUC25SH
EUC25 SWISS PLUS	EUC25SL EUC25SLP EUC25SM EUC25SMP EUC25SH
TRA WEST	LS-T21 PREALPES LS-T201 HIGH PREALPES LS-T22 OBERLAND LS-T202 HIGH OBERLAND LS-T23 BAS VALAIS LS-T203 HIGH BAS VALAIS LS-T24 HAUT VALAIS LS-T204 HIGH HAUT VALAIS
TRA WEST LOW	LS-T21 PREALPES LS-T22 OBERLAND LS-T23 BAS VALAIS LS-T24 HAUT VALAIS
TRA WEST HIGH	LS-T201 HIGH PREALPES LS-T202 HIGH OBERLAND LS-T203 HIGH BAS VALAIS LS-T204 HIGH HAUT VALAIS
TRA CENTER	LS-T31 SCHRATTEN LS-T301 HIGH SCHRATTEN LS-T32 GOMS LS-T302 HIGH GOMS
TRA CENTER LOW	LS-T31 SCHRATTEN LS-T32 GOMS
TRA CENTER HIGH	LS-T301 HIGH SCHRATTEN LS-T302 HIGH GOMS
TRA EAST	LS-T51 CALANDA LS-T501 HIGH CALANDA LS-T52 BEVERIN LS-T502 HIGH BEVERIN LS-T61 CORVATSCH LS-T601 HIGH CORVATSCH

TRA EAST LOW	LS-T51 CALANDA LS-T52 BEVERIN LS-T61 CORVATSCH
TRA EAST HIGH	LS-T501 HIGH CALANDA LS-T502 HIGH BEVERIN LS-T601 HIGH CORVATSCH
TRA EAST A9	LS-T40 SAENTIS LS-T400 HIGH SAENTIS LS-T51 CALANDA LS-T501 HIGH CALANDA LS-T52 BEVERIN LS-T502 HIGH BEVERIN LS-T53 TARASP LS-T61 CORVATSCH LS-T601 HIGH CORVATSCH
TRA EAST A9 LOW	LS-T40 SAENTIS LS-T51 CALANDA LS-T52 BEVERIN LS-T53 TARASP LS-T61 CORVATSCH
TRA EAST A9 HIGH	LS-T400 HIGH SAENTIS LS-T501 HIGH CALANDA LS-T502 HIGH BEVERIN LS-T601 HIGH CORVATSCH
TRA EAST A9 PLUS	LS-T40 SAENTIS / LS-T40P SAENTIS PLUS LS-T400 HIGH SAENTIS / LS-T400P HIGH SAENTIS PLUS LS-T51 CALANDA / LS-T51P CALANDA PLUS LS-T501 HIGH CALANDA / LS-T501P HIGH CALANDA PLUS LS-T52 BEVERIN/ LS-T52P BEVERIN PLUS LS-T502 HIGH BEVERIN / LS-T502P HIGH BEVERIN PLUS LS-T53 TARASP LS-T61 CORVATSCH LS-T601 HIGH CORVATSCH LS-T62 MISOX / LS-T62P MISOX PLUS LS-T602 HIGH MISOX / LS-T602P HIGH MISOX PLUS
TRA EAST A9 LOW PLUS	LS-T40 SAENTIS / LS-T40P SAENTIS PLUS LS-T51 CALANDA / LS-T51P CALANDA PLUS LS-T52 BEVERIN/ LS-T52P BEVERIN PLUS LS-T53 TARASP LS-T61 CORVATSCH LS-T62 MISOX / LS-T62P MISOX PLUS
TRA EAST A9 HIGH PLUS	LS-T400 HIGH SAENTIS / LS-T400P HIGH SAENTIS PLUS LS-T501 HIGH CALANDA / LS-T501P HIGH CALANDA PLUS LS-T502 HIGH BEVERIN / LS-T502P HIGH BEVERIN PLUS LS-T601 HIGH CORVATSCH LS-T602 HIGH MISOX / LS-T602P HIGH MISOX PLUS

LS-R2 and LS-R3 for military activities with PC 21

LS-R2 and LS-R3 may only be used for military activities with PC-21 according to the following table:

LS-R2 und LS-R3 (all times in UTC)

	During period of summer time (REF GEN 2.1.2)	Outside period of summer time (REF GEN 2.1.2)
MON - FRI	0530 - 1005 / 1115 - 1505	0630 - 1105 / 1215 - 1605

MNM FL during lunchtime

Applicable minimum FL during lunchtime are defined in the following table:

MNM FL during lunchtime (all times in UTC)

	During period of summer time (REF GEN 2.1.2)	Outside period of summer time (REF GEN 2.1.2)
	1005 - 1115	1105 - 1215
	MNM FL 150	MNM FL 150

Airspace reservation principles

Each civil and military activity (mission/event) that requires reservation of airspace is to be planned in such a manner to:

- satisfy the goal of the activity in terms of (mission) effectiveness;
- grant for an adequate level of safety; and
- keep the restrictions for other airspace users to the minimum possible extent.

During the planning of an activity (mission/event), which requires the reservation of airspace (having as a final result the submission of an airspace reservation request) the airspace reservation principles in regard to time and space are to be followed.

Airspace reservation principles for activity planning regarding time

General principle

- Activities are to be planned with temporary nature (based on the actual use of airspace including time buffers, which are to be kept to the minimum to satisfy safety aspects).
- Activities are to be planned in such a manner that the timely activation and release of reserved airspace (based on the actual use of the airspace) are considered.

Airspace reservation principles for activity planning regarding space

General principle

Activities are to be planned in such a manner that the total volume of airspace is kept to the minimum necessary while ensuring safety and effectiveness of the activity.

Prioritisation

- Whenever possible, the following order of priority should be followed regarding TRA (LOW and HIGH) reservations for military activities:
 1. TRA CENTER;
 2. TRA WEST;
 3. TRA EAST.
- Whenever possible, the following order of priority should be followed within the area WEST in regard to TRA reservations for military activities:
 1. LS-T23/203 and LS-T24/204;
 2. LS-T22/202 and LS-T24/204;
 3. LS-T21/201 and LS-T22/202.

Simultaneous reservations

Whenever possible, the following simultaneous reservations should be avoided:

- TRA EAST A9 PLUS and TRA EUC25 SWISS PLUS; or
- TRA EAST A9 LOW PLUS and LS-R8/R8A.

Reservation of LS-T53 for military activities

Whenever possible, the LS-T53 should not be planned for military activities (in order to facilitate the handling of ARR and DEP at Samedan [LSZS]).

Reservation in regard to the “High Altitudes O2 drops”

For “High Altitudes O2 drops” TRA PLUS areas shall not be reserved. In addition, the simultaneous use of LS-R8/R8A and LS-T62/602 for High Altitude O2 drops shall be avoided outside of the standard allocation times defined in the document “Airspace usage priorities”.

Reservation procedure in regard to the “Busy Friday / Early Access to Weekend Routes (EAW)”

On Fridays from April to October between 1200 LT and 2359 LT (except during time frames defined in the Annex “Deviations from airspace usage priorities” to the document “Airspace usage priorities”) the TRAs EUC25 SWISS HIGH, TRA WEST HIGH, TRA EAST A9 HIGH PLUS and EUC660 shall not be reserved.

Reservation procedure for PILATUS (CIV)

Applicable if guided by ADDC.

- TRA CENTER only, may be reserved for Pilatus missions guided by ADDC.
- If TRAs LOW are reserved, a vertical extension to MAX FL300 is accepted.
- TRA EAST LOW may be reserved for PILATUS missions only if one or more TRAs are already reserved for military activities.

Reservation rules for PILATUS during lunchtime

No TRAs shall be reserved for PILATUS missions during lunchtime (exceptions are possible e.g. during WK).

PILATUS missions shall use the PILATUS BOX (reservation shall be done according to the Special Flight Process i.e. via SFO tool and following CDM on ASM Level 2).

Reservation principles for the TRA EAST A9 PLUS

For military activities within the TRA EAST A9 PLUS special conditions apply:

- Such activities may only take place twice a day (once in the morning and once in the afternoon).
 - The duration of such activities is restricted to one hour.
 - Such activities shall not be planned during Busy Friday / EAW.
-

Reservation principles for the TRA EUC25 SWISS PLUS

For military activities within the TRA EUC25 SWISS PLUS special conditions apply:

- Such activities may only take place four times a day (twice in the morning and twice in the afternoon).
 - The duration of such activities is restricted to one hour.
 - Between two consecutive activities, at least a one-hour break shall be planned.
 - Such activities shall not be planned during Busy Friday / EAW.
-

Airspace allocation rules

After submission of an airspace reservation request the AMC shall allocate the requested airspace by following the airspace allocation principles listed hereunder:

Minimum availability period

Airspace allocations of less than 30 min are not permitted.

Allocation of buffers due to SAF/ADDC operational reasons

After every military activity, additional buffer of 10 min shall be allocated.

Exceptions are:

- LS-R2, LS-R3, EUC25F and EUC60/660.
- If the mission ends at 1200 LT, 1700 LT or 2200 LT (end of standard allocation times defined in the document "Airspace usage priorities").
- If the mission ends at the end of the extended standard allocation times defined within the Annex "Deviation from airspace usage priorities" to the document "Airspace usage priorities".

Allocation of buffers due to the FIS LW / MICAMS System

- TRAs shall be allocated in 5 min steps (5 min grid).
- In the event of two or more airspace reservations starting or ending with a time difference of 10 min or less, an additional time buffer is allocated to minimize the time steps.

Allocation of LS-R2 and LS-R3

- LS-R2 and LS-R3 shall be allocated in 5 min steps without any time buffer (i.e. same reservation times as published on the DABS).

Allocation of EUC660

- When EUC660 (FL200-660) is allocated, the TRAs LS-T61 and LS-T62 shall additionally be allocated.
- An additional time buffer, after the mission in the area defined within the first bullet, shall be allocated to the next 15 min grid (P5 or P10 min), except if it ends on 15/30/45/60 min grid.
- No time buffer shall be applied prior to the commencement of the missions in the whole area.
- If EUC660 is already allocated, EUC60 shall not be considered for allocation.

Allocation of TRAs within TRA WEST, TRA CENTER and EUC25 SWISS

Due to safety and operational (ADDC) reasons, the following LOW airspace shall be allocated in addition to the reserved (mission) areas, depending on the TRA activation and military IFR traffic to/from Emmen (LSME), Meiringen (LSMM), Payerne (LSMP) and Sion (LSGS).

DEP and/or ARR at Emmen (LSME)

- If a mission takes place in TRA EAST / EAST A9 / EAST A9 PLUS: No TRA shall be additionally allocated.
- If a mission takes place in TRA CENTER: The TRAs LS-T31 and LS-T32 shall be allocated.
- If a mission takes place in TRA WEST: The TRAs LS-T31 and LS-T22 shall be allocated.
- If a mission takes place in TRA EUC25 SWISS: The TRA LS-T31 shall be allocated.
- If EKUR flights operated at FL380 take place: The TRA LS-T31 shall be allocated.

DEP and/or ARR at Meiringen (LSMM)

- If a mission takes place in TRA EAST / EAST A9 / EAST A9 PLUS: The TRAs LS-T21, LS-T22, LS-T31, LS-T32 shall be allocated.
- If a mission takes place in TRA CENTER: The TRAs LS-T21, LS-T22, LS-T31 and LS-T32 shall be allocated.
- If a mission takes place in TRA LS-T22 and/or LS-T24: The TRAs LS-T21, LS-T22, LS-T31 and LS-T31 shall be allocated.
- If a mission takes place in TRA LS-T21 and/or LS-T23. The TRAs LS-T21, LS-T22, LS-T31 and LS-T32 shall be allocated.
- If a mission takes place in TRA EUC25 SWISS: The TRAs LS-T21, LS-T22, LS-T31 and LS-T32 shall be allocated.
- If EKUR flights operated at FL380 take place: The TRAs LS-T31 and LS-T32 shall be allocated.

DEP and/or ARR at Payerne (LSMP)

- If a mission takes place in TRA EAST / EAST A9 / EAST A9 PLUS: The TRAs LS-T21, LS-T22 and LS-T31 shall be allocated.
- If a mission takes place in TRA CENTER: The TRAs LS-T21 and LS-T22 shall be allocated.
- If a mission takes place in TRA WEST: The TRAs LS-T21 and LS-T22 shall be allocated.
- If a mission takes place in TRA EUC25 SWISS: No TRAs shall be additionally allocated.
- If EKUR flights operated at FL380 take place: The TRAs LS-T21 and LS-T22 shall be allocated.

DEP and/or ARR at Sion (LSGS)

- For each military activity departing from or arriving at Sion (LSGS) TRA WEST LOW and TRA CENTER LOW shall be allocated.

Allocation rules due to MIL and CIV ATC systems limitations

- Within the TRA EAST / EAST A9 / EAST A9 PLUS single TRA allocation rule shall be applied.
- Within the TRA CENTER no single TRA allocation rule shall be applied.
- Depending on TRA within the TRA WEST in which the mission takes place and the ARR/DEP aerodrome, one of the following combinations shall be allocated:
 - a) LS-T21/201 and LS-T22/202
 - b) LS-T21/201 and LS-T23/203
 - c) LS-T22/202 and LS-T24/204
 - d) LS-T23/203 and LS-T24/204
- Within the TRA EUC25 SWISS single TRA allocation rule shall be applied.
- Exceptions are EKUR flights operated by SAF at FL380 in which case all TRAs HIGH shall be allocated.

Allocation rule in regard to the “Quick Reaction Alert (QRA) Missions” (i.e. “Hot missions”)

No TRAs shall be allocated for Quick Reaction Alert (QRA) Missions (so called “Hot missions”).

Allocation rule in regard to the “MIL Training QRA night flights”

The pre-allocated TRAs (defined in the Annex "Deviations from airspace usage priorities" to the document “Airspace usage priorities”) shall be allocated without any additionally time buffer and TRAs for return to base (RTB) needs.

Allocation rules in regard to the “Twilight flights”

The TRAs shall be allocated according standard allocation times defined in the document “Airspace usage priorities”, normally on Mondays and/or Tuesdays.

Allocation rules in regard to the “Busy Friday / Early Access to Weekend Routes (EAW)”

On Fridays from April to October between 1200 LT and 2359 LT (except during time frames defined in the Annex “Deviations from airspace usage priorities” to the document “Airspace usage priorities”) the TRAs EUC25SH, LS-T201, LS-T202, LS-T203, LS-T204, LS-T400, LS-T501, LS-T502, LS-T602, LS-T601 and EUC660 shall not be allocated.

ARR Restrictions at Sion (LSGS)

For military activities with 5 or more aircraft participating in the same mission within the TRA WEST LOW and/or CENTER LOW, IFR approaches to LSGS will be restricted and therefore:

- LS-T900Z shall be allocated in the AUP/UUP.
- Shifting of a mission with 5 or more aircraft or increasing of number of aircraft to 5 or more aircraft after the published AUP, the airspace procedure "re-allocation/P3" shall be applied upon CDM with a minimum lead time of 4 hours.

Allocation rules for PILATUS during ADDC ON

Reserved TRAs shall be allocated without any time and airspace buffer.

- If TRAs LOW are reserved, a vertical extension to MAX FL300 is accepted.
- LS-T53 shall not be allocated for PILATUS missions within the TRA EAST LOW.
- Within the TRA EAST HIGH no TRA shall be allocated for PILATUS missions unless one or more TRAs are already reserved for military activities.

Allocation rules for PILATUS during lunchtime

No TRAs shall be allocated for PILATUS missions during lunchtime (exceptions are possible e.g. during WK).

Allocation rules in regard to the special flights

High Altitudes O2 drops

If High Altitudes O2 drops performed by para-recon company of the Swiss Army take place, the following rules apply:

- Inside standard allocation times defined in the document "Airspace usage priorities" (the PARA O2 operations are guided by ADDC):
 - TRAs shall be allocated as reserved.
 - TRAs PLUS shall not be allocated.
- Outside standard allocation times defined in the document "Airspace usage priorities" (the PARA O2 operations are guided by CIV ATC):
 - The pre-allocated TRAs defined in the Annex "Deviations from airspace usage priorities" to the document "Airspace usage priorities" shall be allocated without any time and airspace buffer.
 - TRAs PLUS shall not be allocated.
 - TRA LS-T62 shall not be allocated if LS-R8 is active.

Special flights guided by CIV ATC

No TRA shall be allocated for special flights guided by CIV ATC.

Allocation of LS-R11 and LS-R11A

LS-R11 and LS-R11A shall be declared as AMC Manageable Areas (AMAs) which triggers a closure of affected routes at respective FLs. Affected routes are:

- Z119: PELAD-RONAG
- Z50: PELAD-RESIA
- UQ341: ELMUR-RESIA
- UP131: ARGAX-RESIA
- IFR ARR/DEP procedures at Samedan (LSZS).

The closure of affected routes includes vertical buffer and time buffer of -30/+30min, when LS-R11 and/or LS-R11A are active.

AMC shall trigger the corresponding closures via AUP/UUP, based on the activity information received by NOTAM.

Allocation of the TRA EAST A9 PLUS

For military activities within the TRA EAST A9 PLUS special conditions apply:

- Such activities shall only be allocated twice a day (once in the morning and once in the afternoon).
- The duration of such allocations shall be restricted to one hour.
- Such allocations shall not be made during Busy Friday / EAW.

Allocation of the TRA EUC25 SWISS PLUS

For military activities within the TRA EUC25 SWISS PLUS special conditions apply:

- Such activities shall only be allocated four times a day (twice in the morning and twice in the afternoon).
 - The duration of such allocations is restricted to one hour.
 - Between two consecutive allocations, at least a one-hour break shall be ensured.
 - Such allocations shall not be made during Busy Friday / EAW.
-