



SEGELFLUGVERBAND DER SCHWEIZ

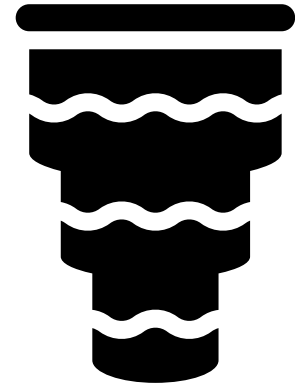
FEDERATION SUISSE DE VOL A VOILE  
FEDERAZIONE SVIZZERA DI VOLO A VELA



# Airspace Refresher 2025

# Contents

- [Introduction to Swiss air space structure](#)
- [Cloud distance minima](#)
- [Restricted areas for gliders](#)
- [New CTR & TMA Zurich](#)
- [Electronic conspicuity & FASST-CH](#)



This presentation has been prepared with great care. Nevertheless, mistakes may occur. In any case, the official publications on the current aeronautical charts, VFR manual and NOTAM are authoritative.

All map cutouts are courtesy of swisstopo and not for operational use.

#### References:

- eVFR Manual as of 20.02.2025
- Standardized European Rules of the Air (SERA) as of December 2024
- Verfügung betreffend Änderung der Luftraumstruktur der Schweiz 2025 vom 4. Februar 2025
- Verfügung betreffend Änderung der Luftraumstruktur Zürich und Dübendorf vom 5. März 2025

I am happy to receive any feedback.

Flurin Schwerzmann

Airspace Delegate, Segelflugverband der Schweiz

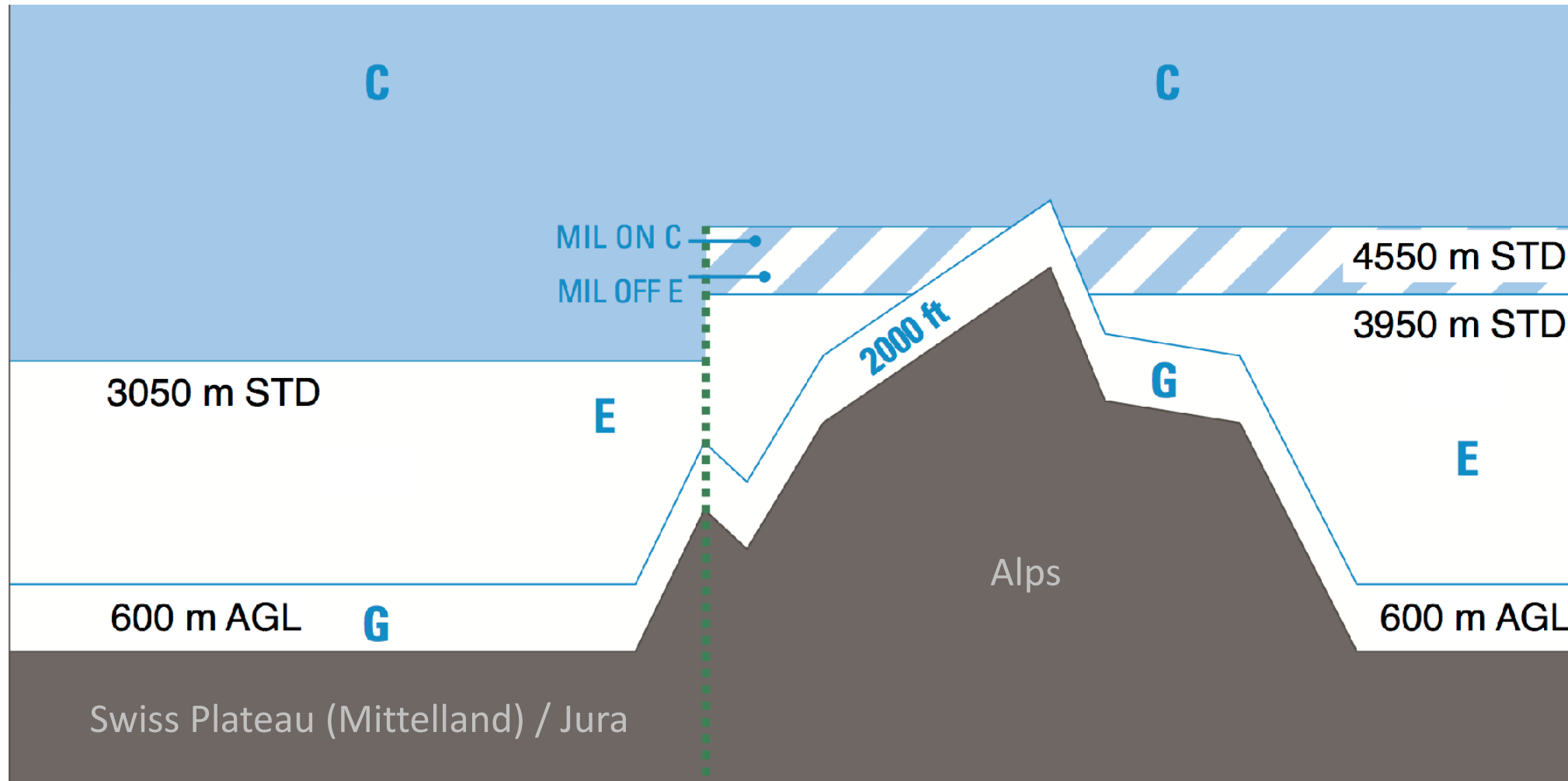
[airspace@sfvs-fsvv.ch](mailto:airspace@sfvs-fsvv.ch)

# Airspace Classification

ICAO/EASA	ATC Clearance	Flight Rules
<b>C</b>	Required	VFR and IFR
<b>D</b>		
<b>E</b>	Not required	VFR only*
<b>G</b>		

\*IFR with FOCA approval

# Swiss Air Space Structure



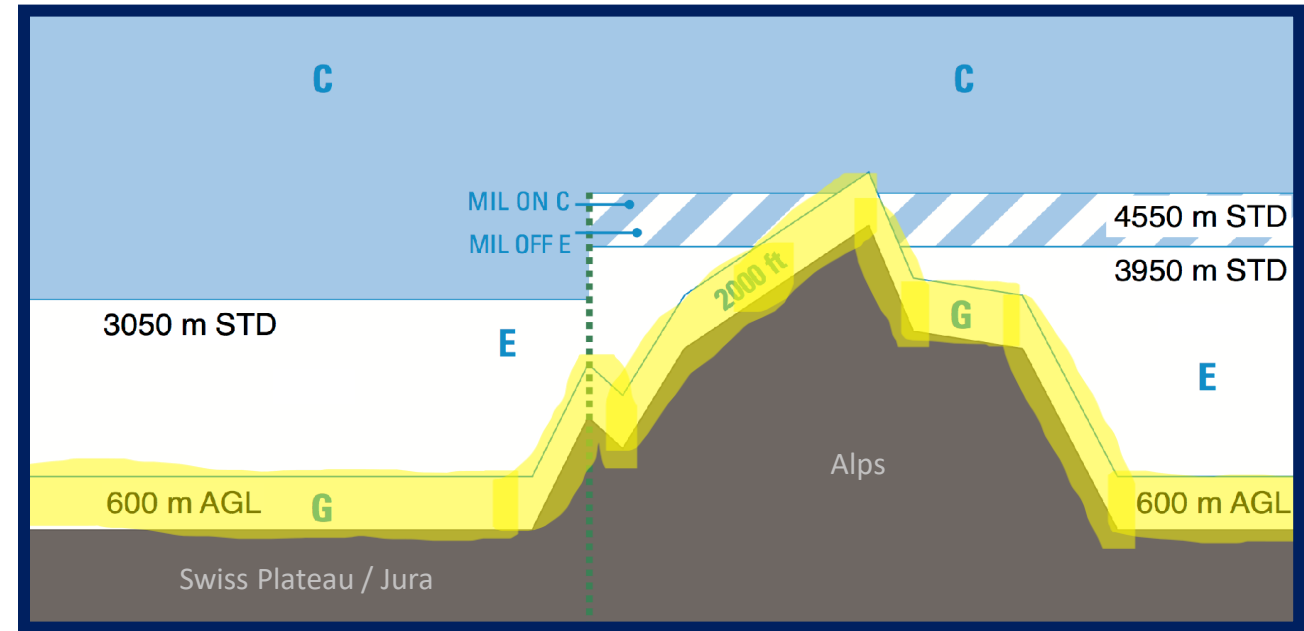


# Airspace Golf

Everywhere (except CTR)

GND up to 600m AGL

- Uncontrolled
- VFR and IFR
- No ATC clearance required
- Outside of clouds
  - > 300m AGL with transponder ON



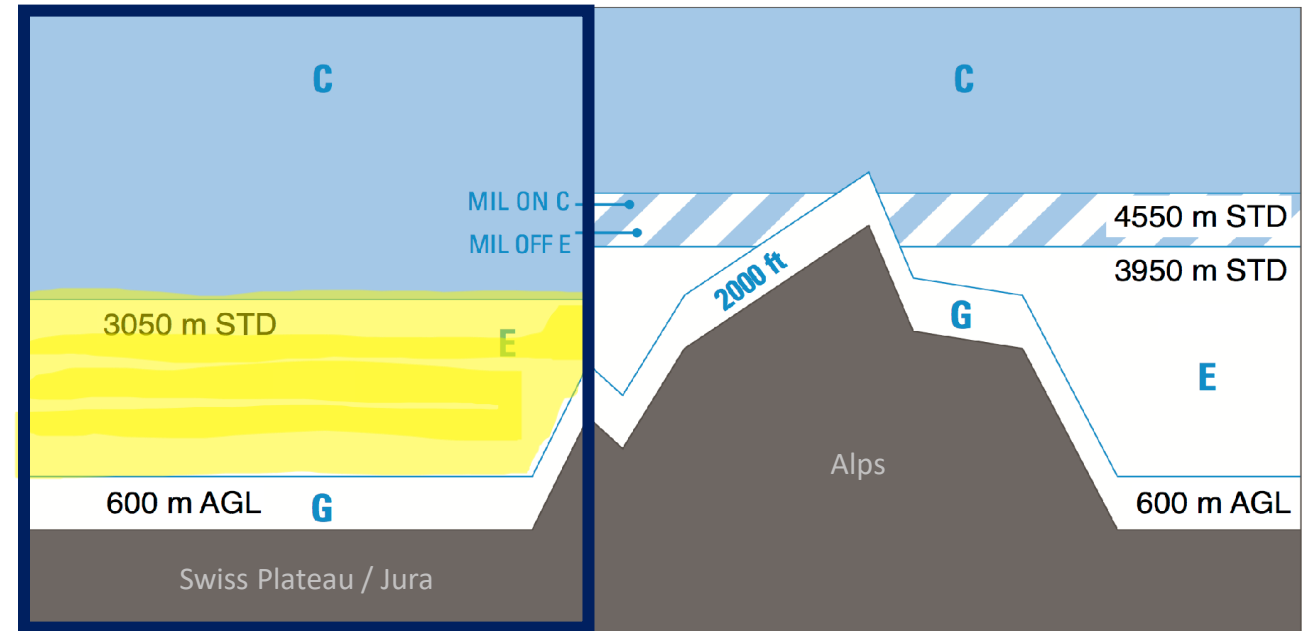


# Airspace Echo

## Swiss Plateau/Jura

600m AGL up to 3050m STD

- Controlled
- VFR and IFR
- No ATC clearance required
- Large cloud distance minima



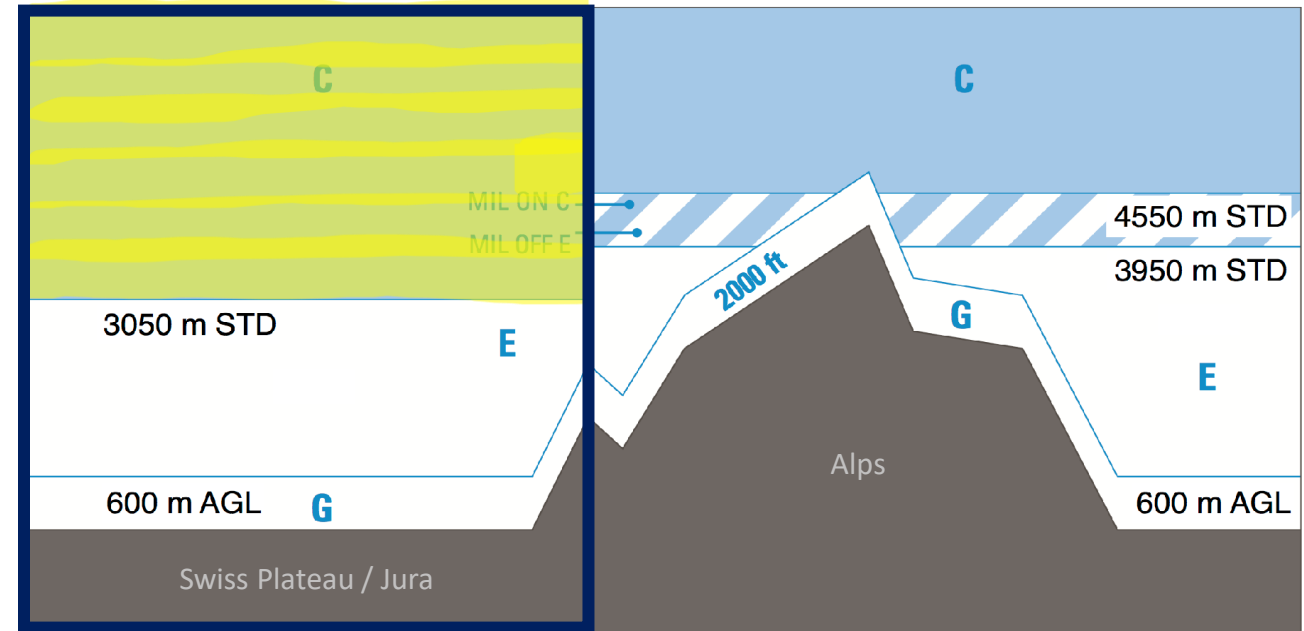


# Airspace Charlie

## Swiss Plateau/Jura

Above 3050m STD

- Controlled
- VFR and IFR
- ATC clearance required
- Large cloud distance minima







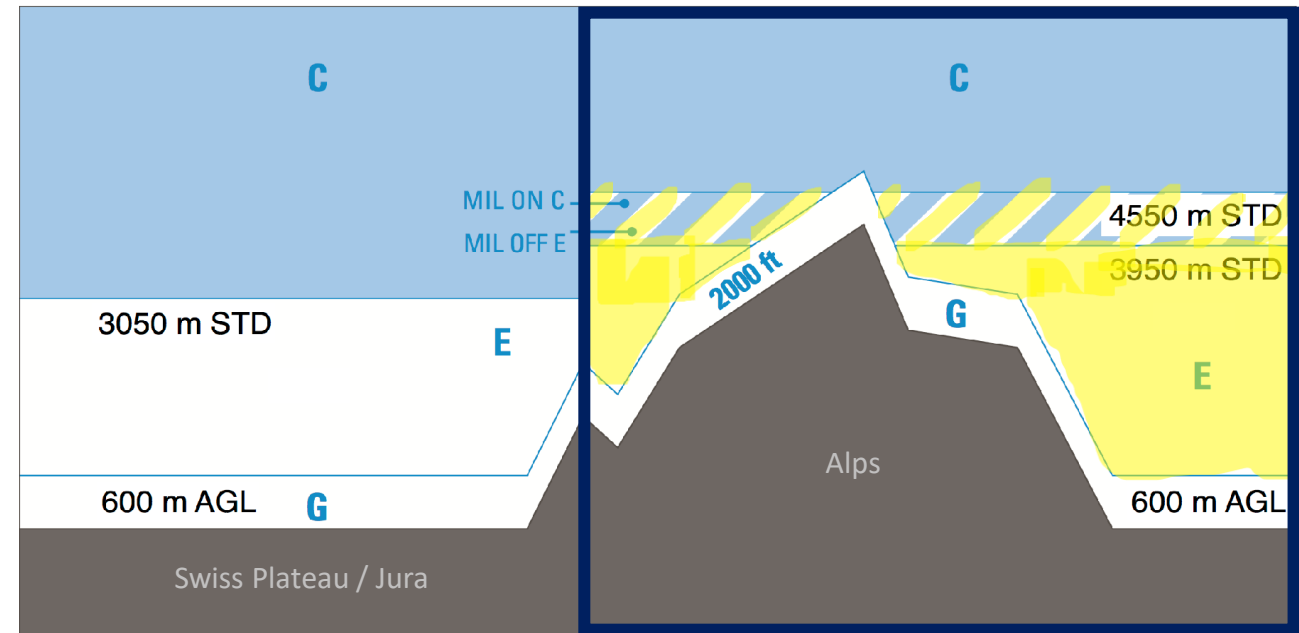
# Airspace Echo

## Alps

*Mil ON*: 600m AGL up to 3950m STD

*Mil OFF*: 600m AGL up to 4550m STD

- Controlled
- VFR and IFR
- No ATC clearance required
- Large cloud distance minima





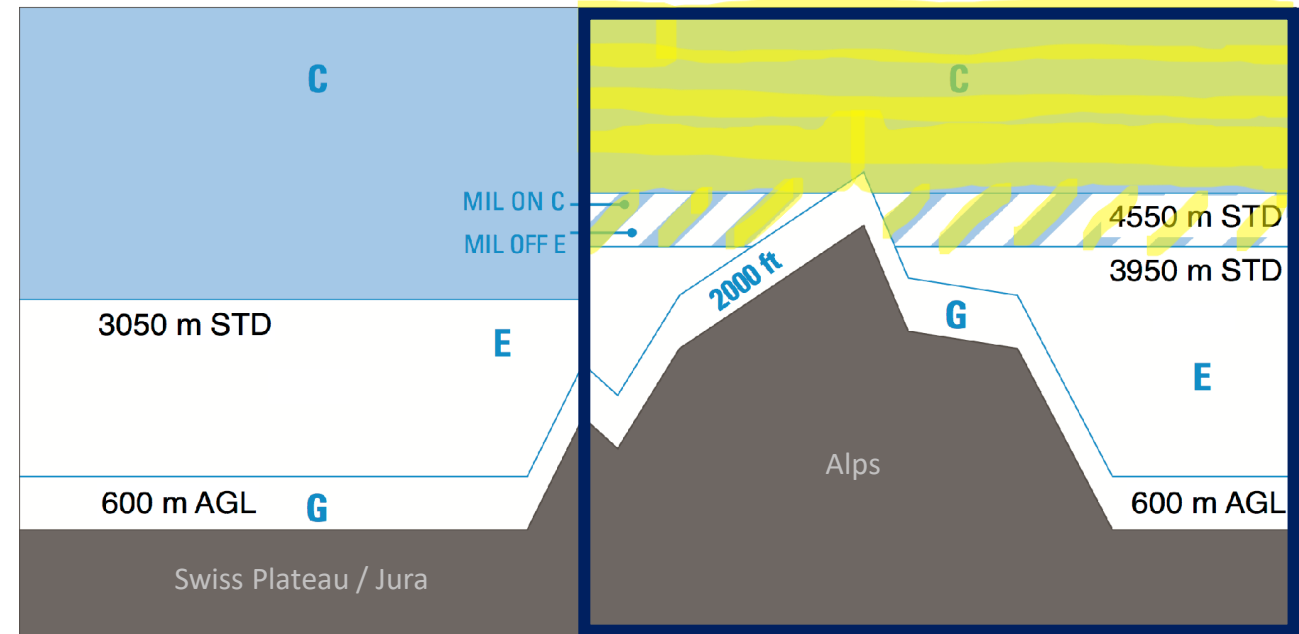
# Airspace Charlie

## Alps

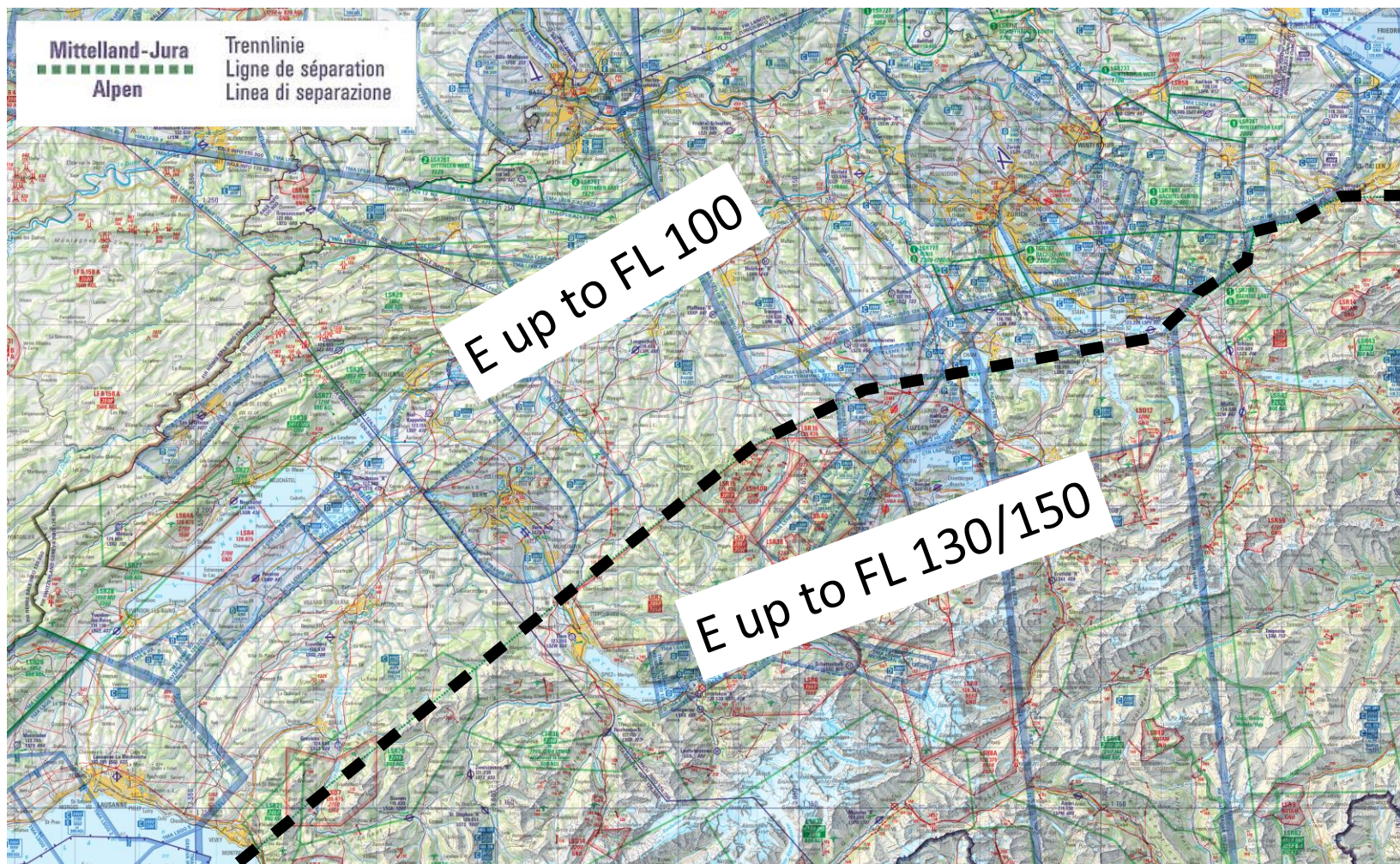
*Mil ON* – Above 3950m STD

*Mil OFF* – Above 4550m STD

- Controlled
- VFR and IFR
- ATC clearance required
- Large cloud distance minima



# Higher Airspace



*Echo up to FL100*

Mil ON

*Echo up to FL130*

Monday – Friday

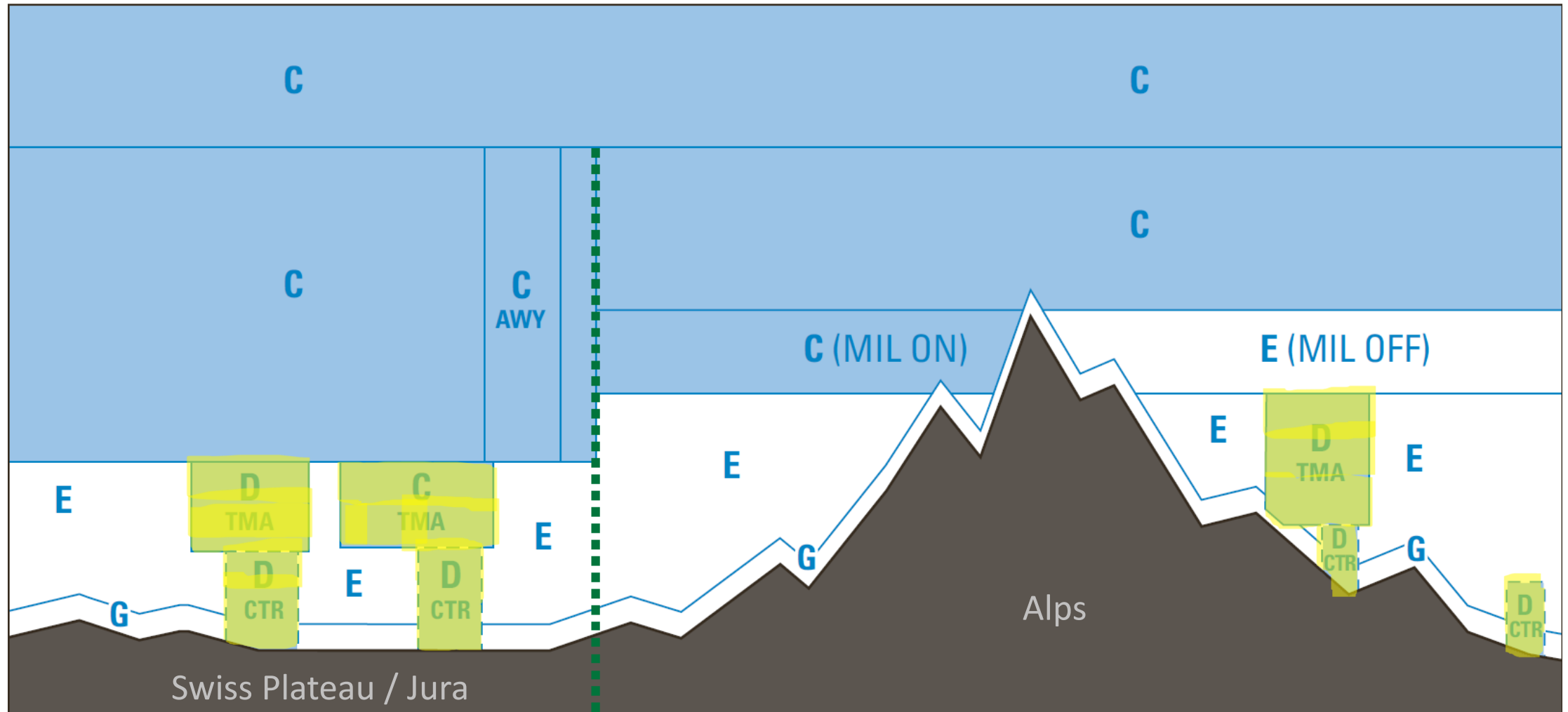
0730LT – 1205LT

1315LT – 1705LT

Mil OFF

*Echo up to FL150*

# Air Space Structure with CTR/TMA





D

## CTR & TMA

C

D

### Control Zone (CTR)

*GND to upper limit*

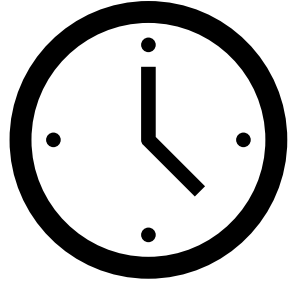
- Controlled
- VFR and IFR
- ATC clearance required
- Large cloud distance minima

### Terminal Control Area (TMA)

*Lower to upper limit*

- Controlled
- VFR and IFR
- ATC clearance required
- Large cloud distance minima

# TEMPO vs. HX



## TEMPO

- Chart: Thin bright blue ribbon
- Activation via DABS/NOTAM
  - Generally not active!

*Alpnach TMA 2 and 4*

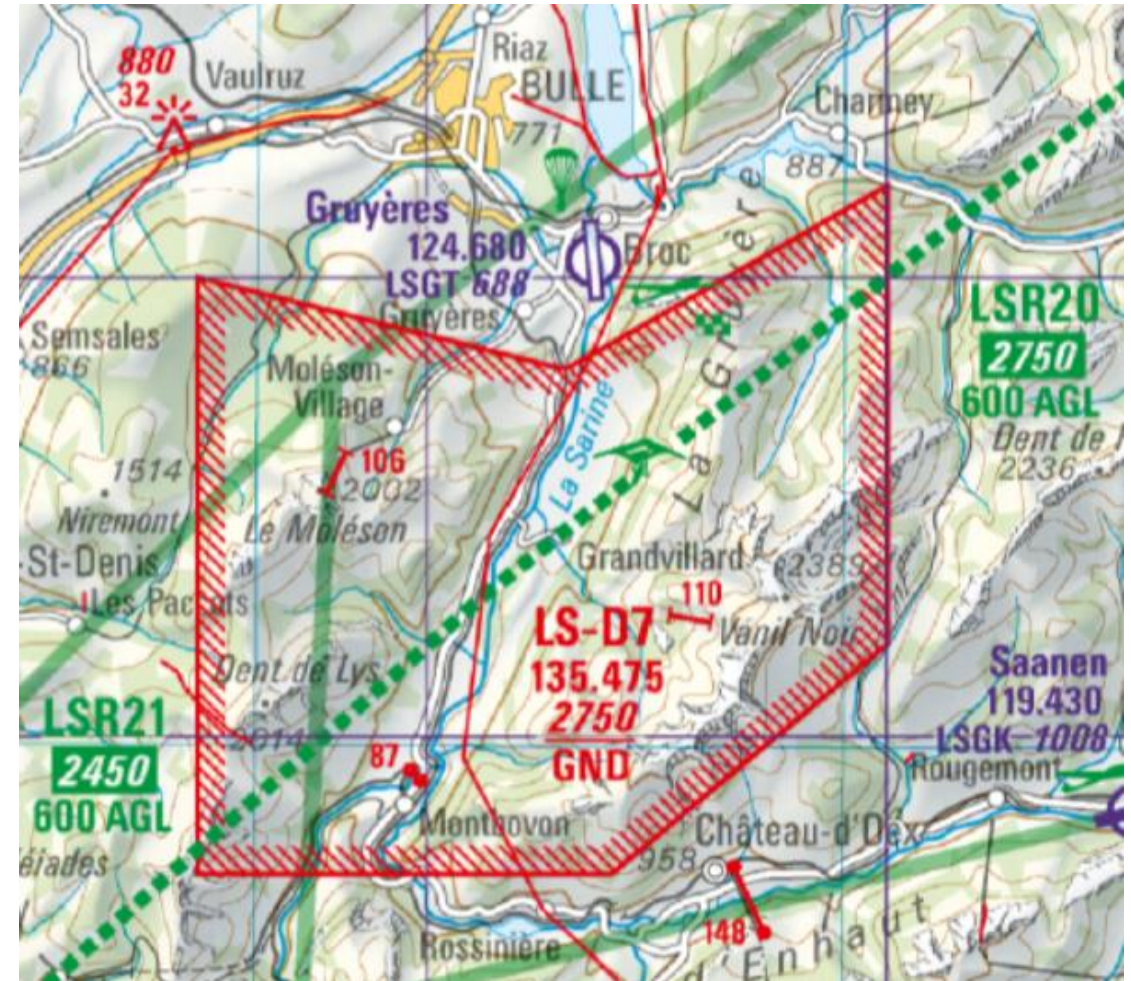
*Sion TMA 1, 2 and 3*

## HX

- No specific working hours
- Check status before entry
- Maintain listening watch
- Deactivation: Same as surrounding airspace G and E

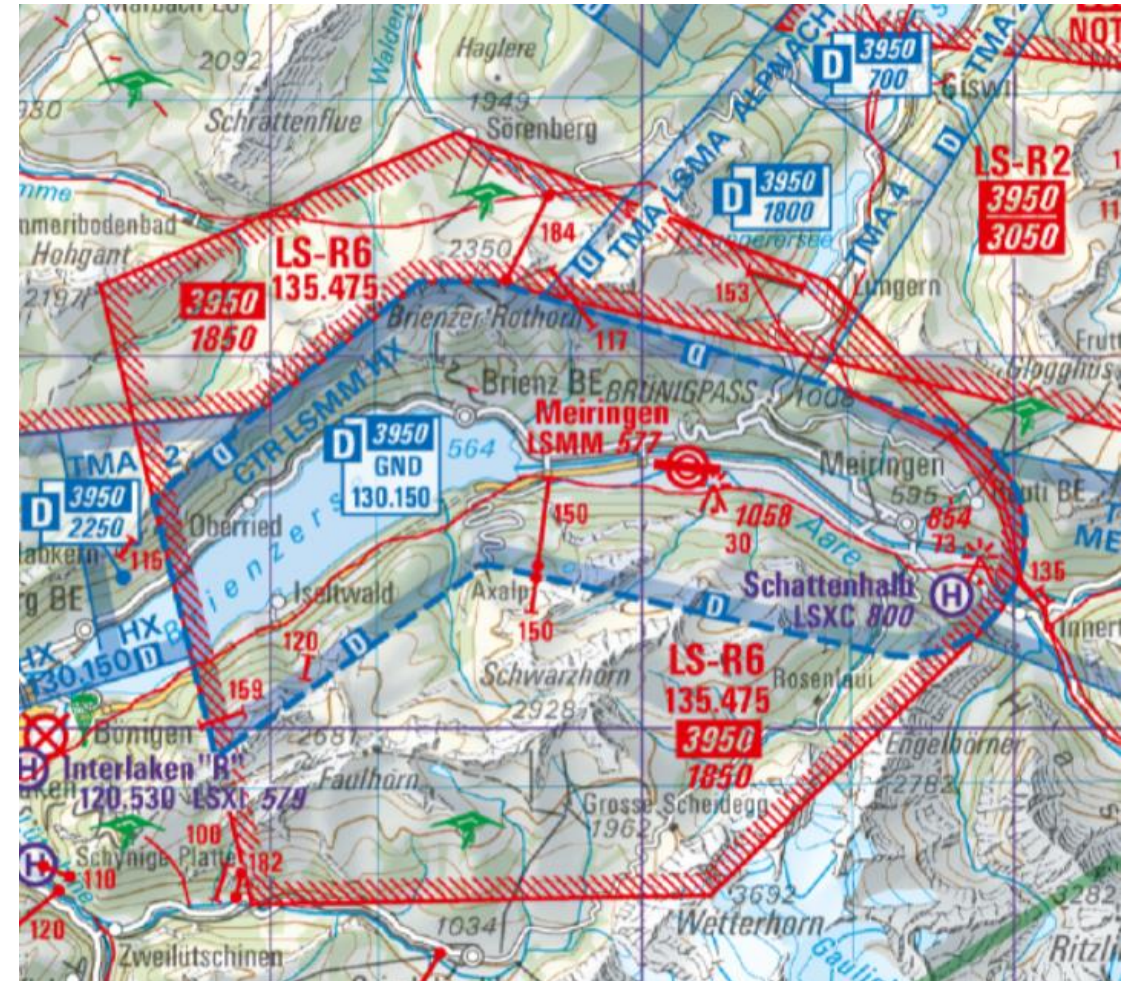
## Danger Area

- Activities dangerous for aircraft
- No specific working hours
- Activation via DABS/NOTAM
- Entry not recommended
  - Legally allowed



## Restricted Area

- Entry prohibited (when active)
- No specific working hours
- Activation via DABS/NOTAM
- Assure deactivation before entry
  - Designated frequency
  - INFORMATION

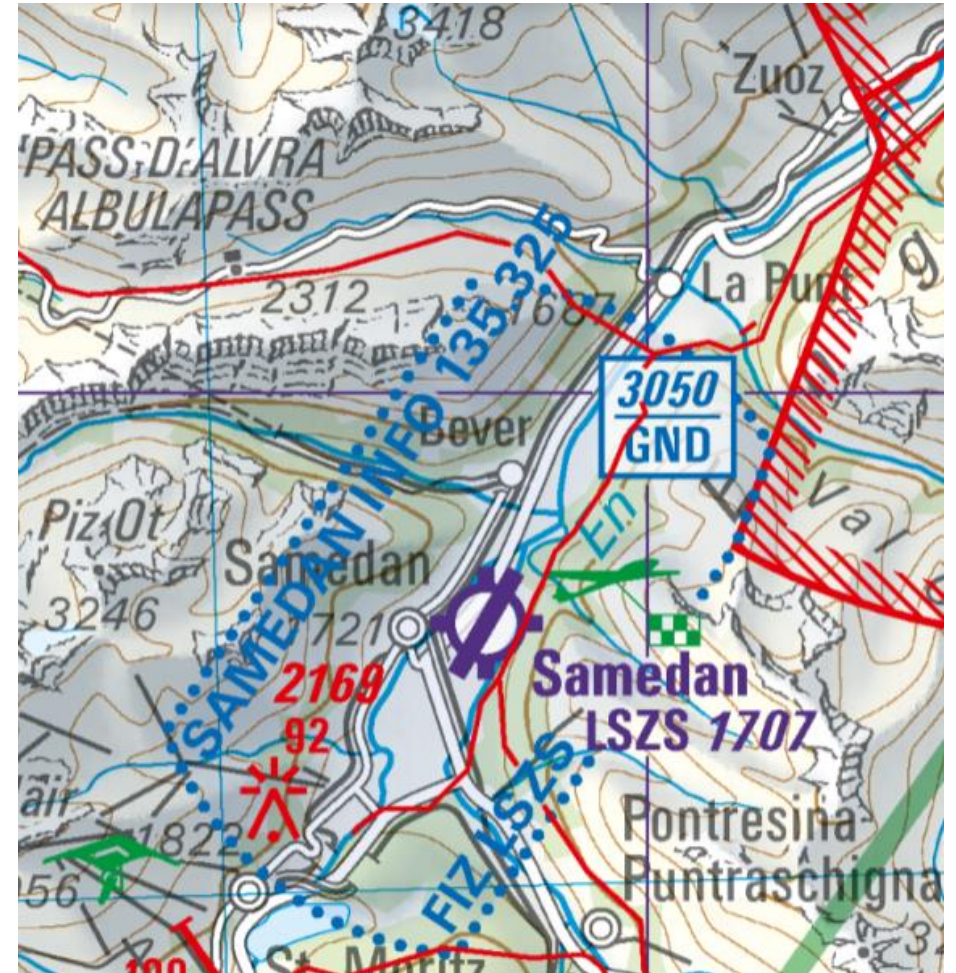




# Flight Information Zone

- Flight information and alerting services
- Mandatory radio contact before entry
  - No ATC clearance required!
- Maintain listening watch
- Airspace class remains Golf and Echo
- Separation is pilot's responsibility

*Samedan, various airports in Italy*



## Radio Mandatory Zone

- Blind transmission before entry, maintain listening watch
- Separation is pilot's responsibility
  - «see and avoid»
- Airspace class remains Golf

*Grenchen (without ATC)*

*Various airports in Germany!*



## Transponder Mandatory Zone

- Entry only with transponder ON
  - Mode S (i.e. ALT)

### Switzerland: TMZ North East

- Without listening watch: Code 7000
  - Visible to ATC, no traffic information
- With listening watch: Code 2677
  - Frequency 119.925
  - Traffic information by ATC



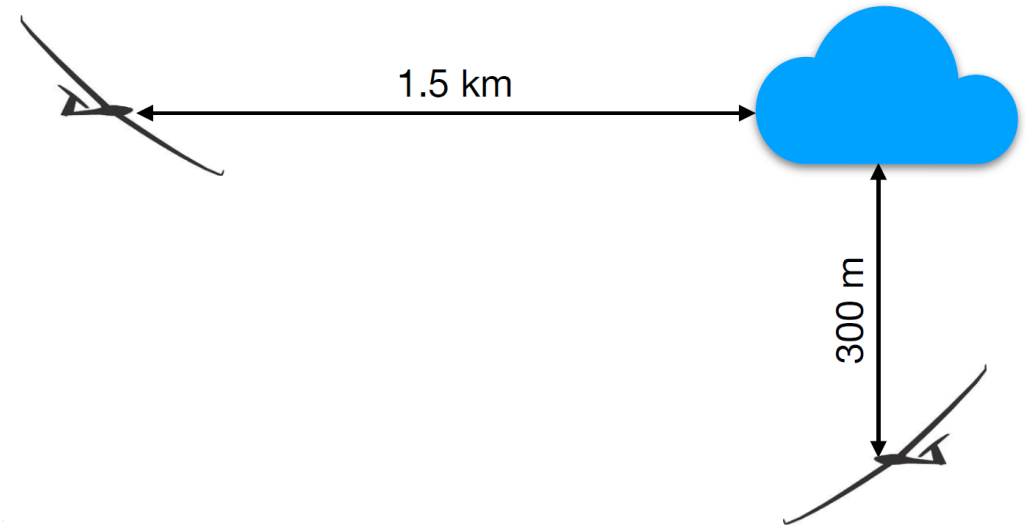
# Large Cloud Distance Minima

## *Airspace classes:*

- Charlie, Delta, Echo
  - LSR for gliders within TMA
- Golf > 300m AGL (transponder OFF)

## *Visibility:*

- 8km above FL100 (3050m STD)
- 5km below FL100 (3050m STD)



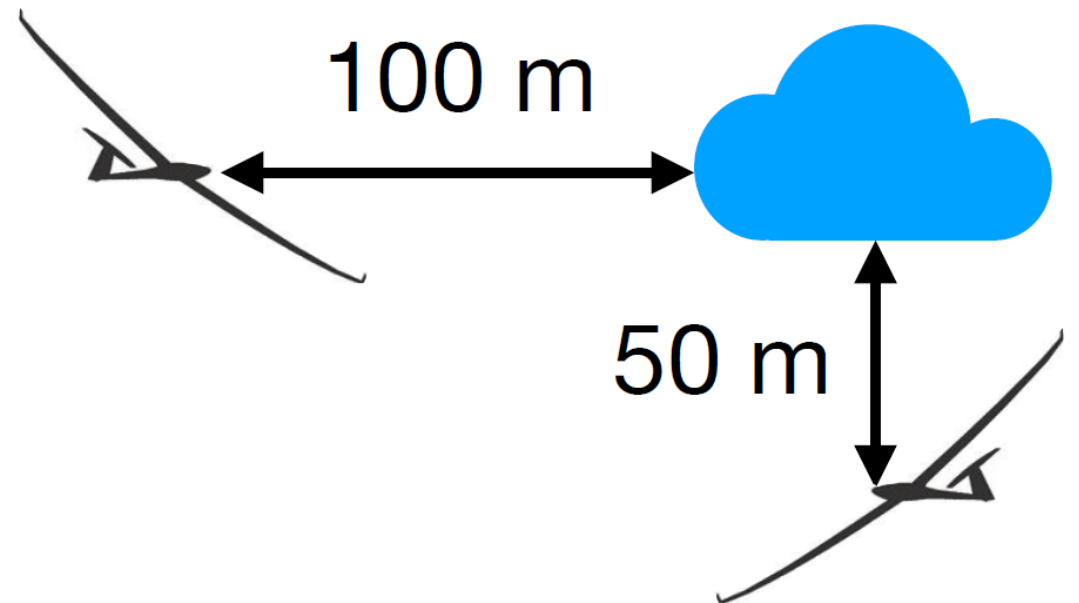
# Reduced Cloud Distance Minima

*Airspace class:* Echo

- LSR for gliders outside TMA

*Visibility:*

- 8km above FL100 (3050m STD)
- 5km below FL100 (3050m STD)



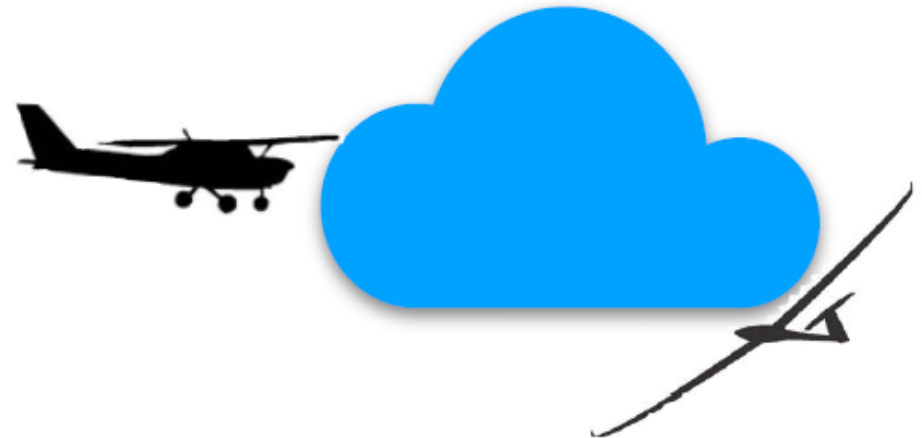
# No Cloud Distance Minima

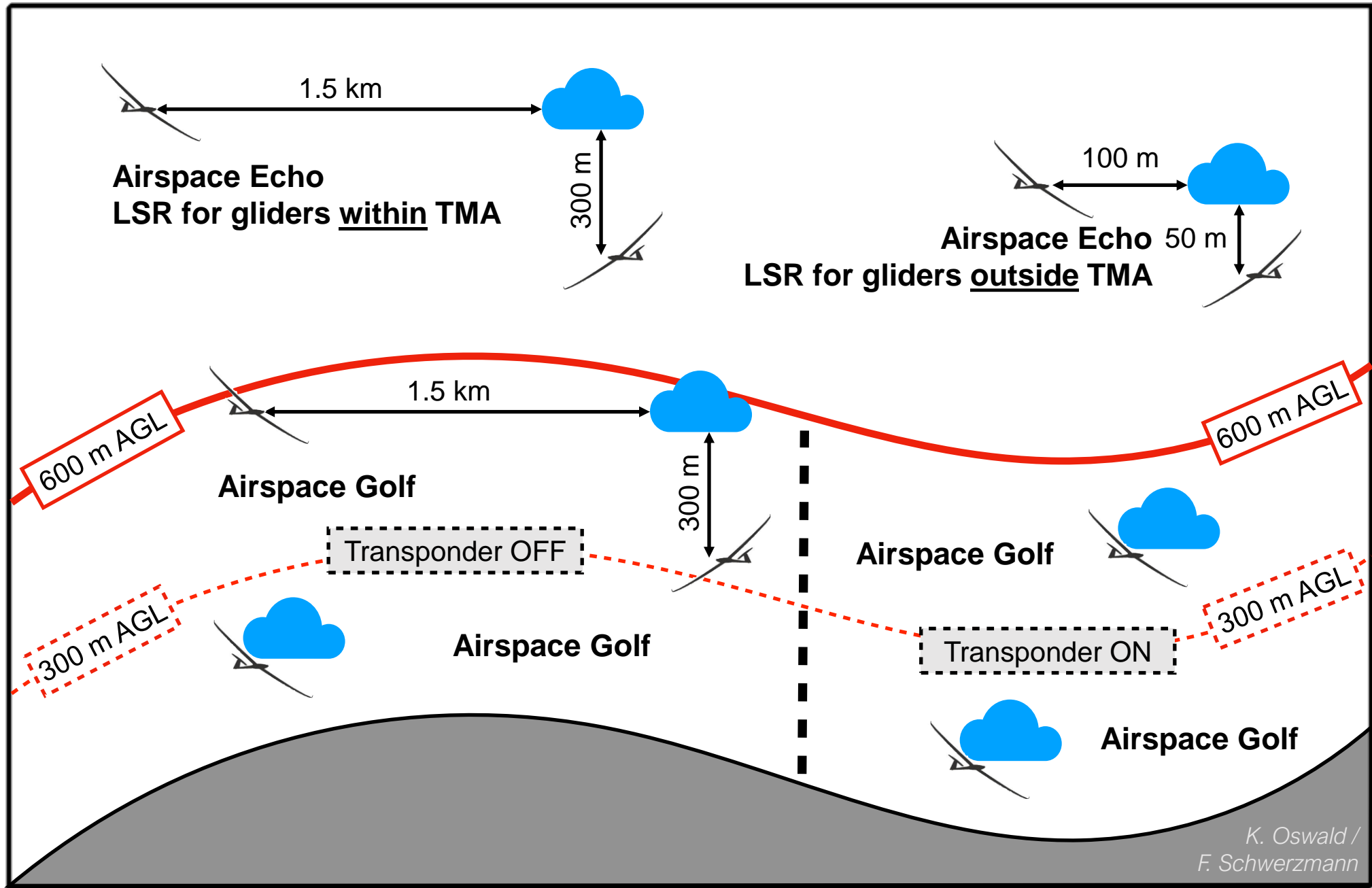
*Airspace class:* Golf

- GND up to 300m AGL
- 300m to 600m AGL (transponder ON)

*Visibility:*

- 5km
- 1.5km, traffic avoidance ensured
  - Ground surface in sight
  - Max. 140 knots

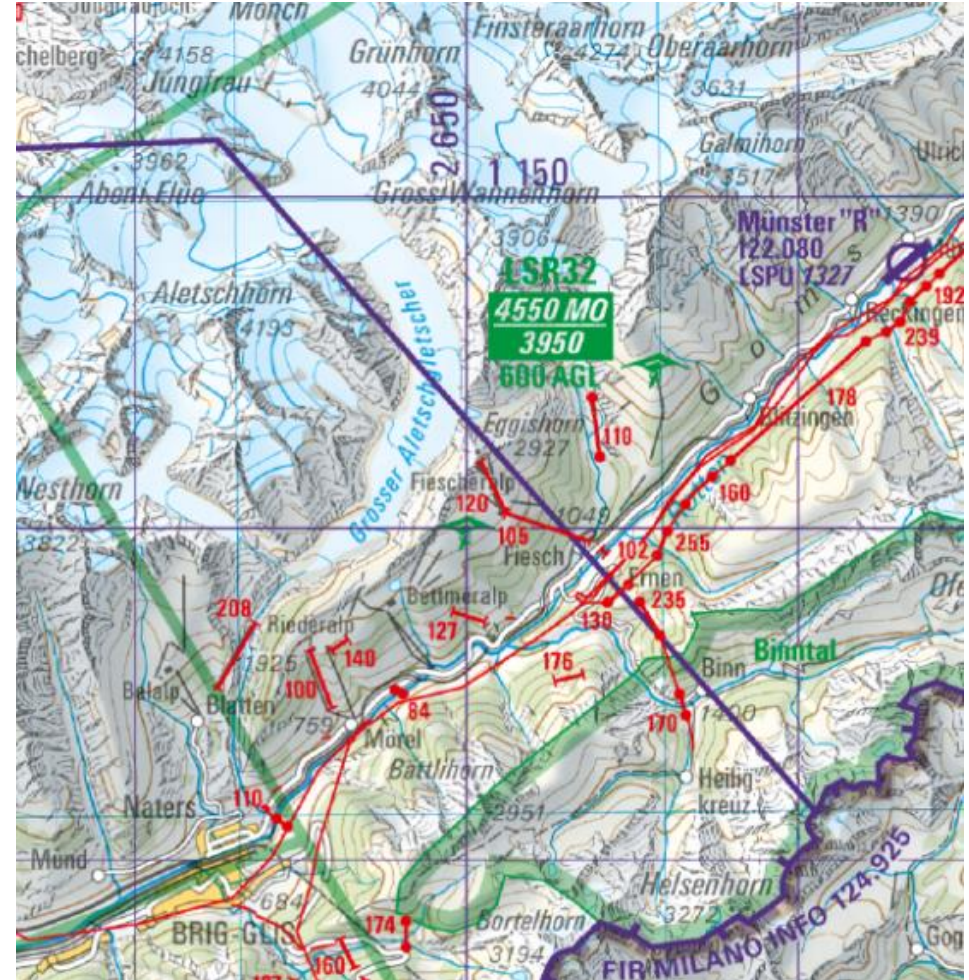




## LSR for Gliders Outside TMA

### Outside TMA

- Reduced cloud distance minima
  - 100 m lateral, 50 m vertical
- Active from 1. March until 31. October
  - SR to SS
  - Mil OFF without approval
  - Mil ON only with specific approval

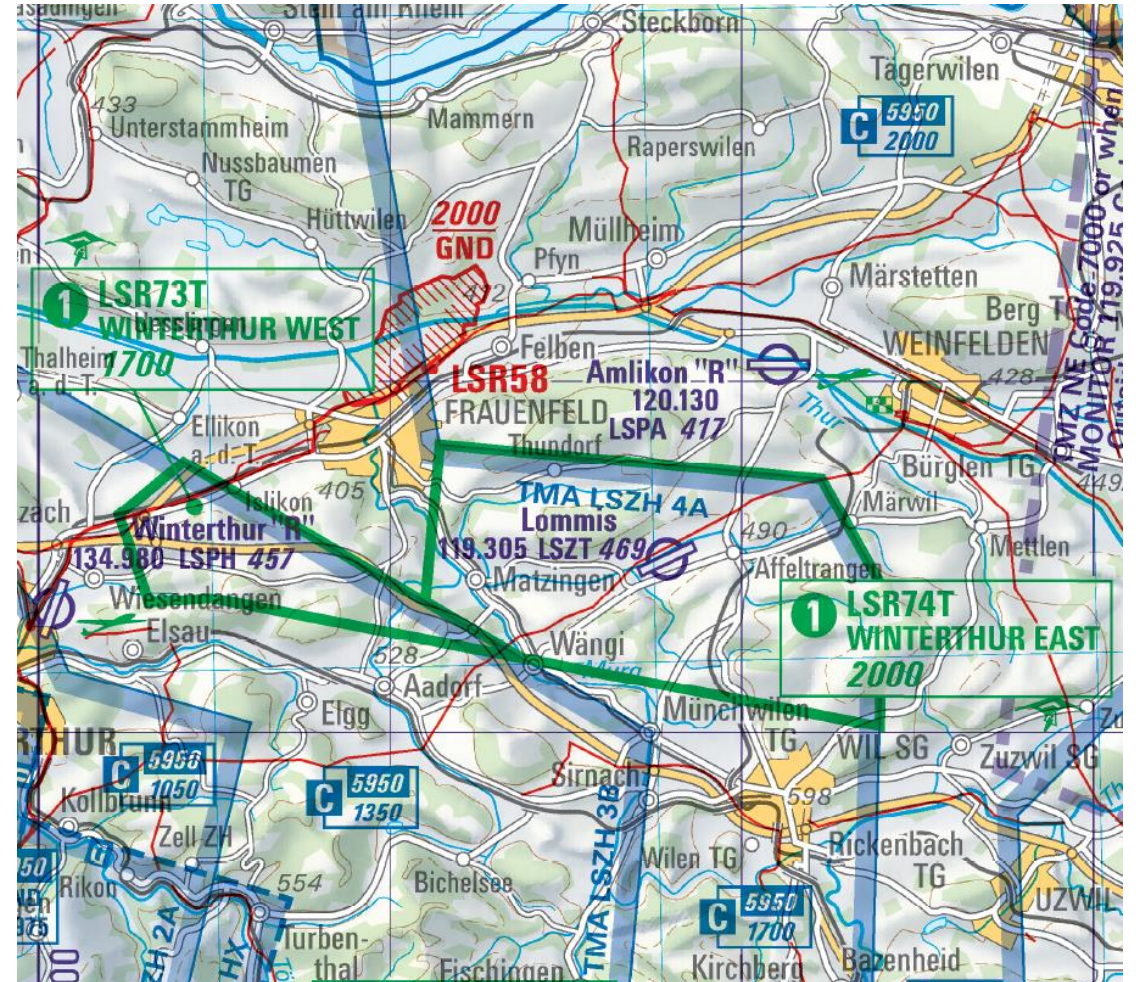




## LSR for Gliders Within TMA

### Within TMA

- No ATC clearance required
  - Only for gliders and tow planes
- Rules of airspace class Echo
  - Large cloud distance minima!
- Activation: See glider chart
- Maintain listening watch

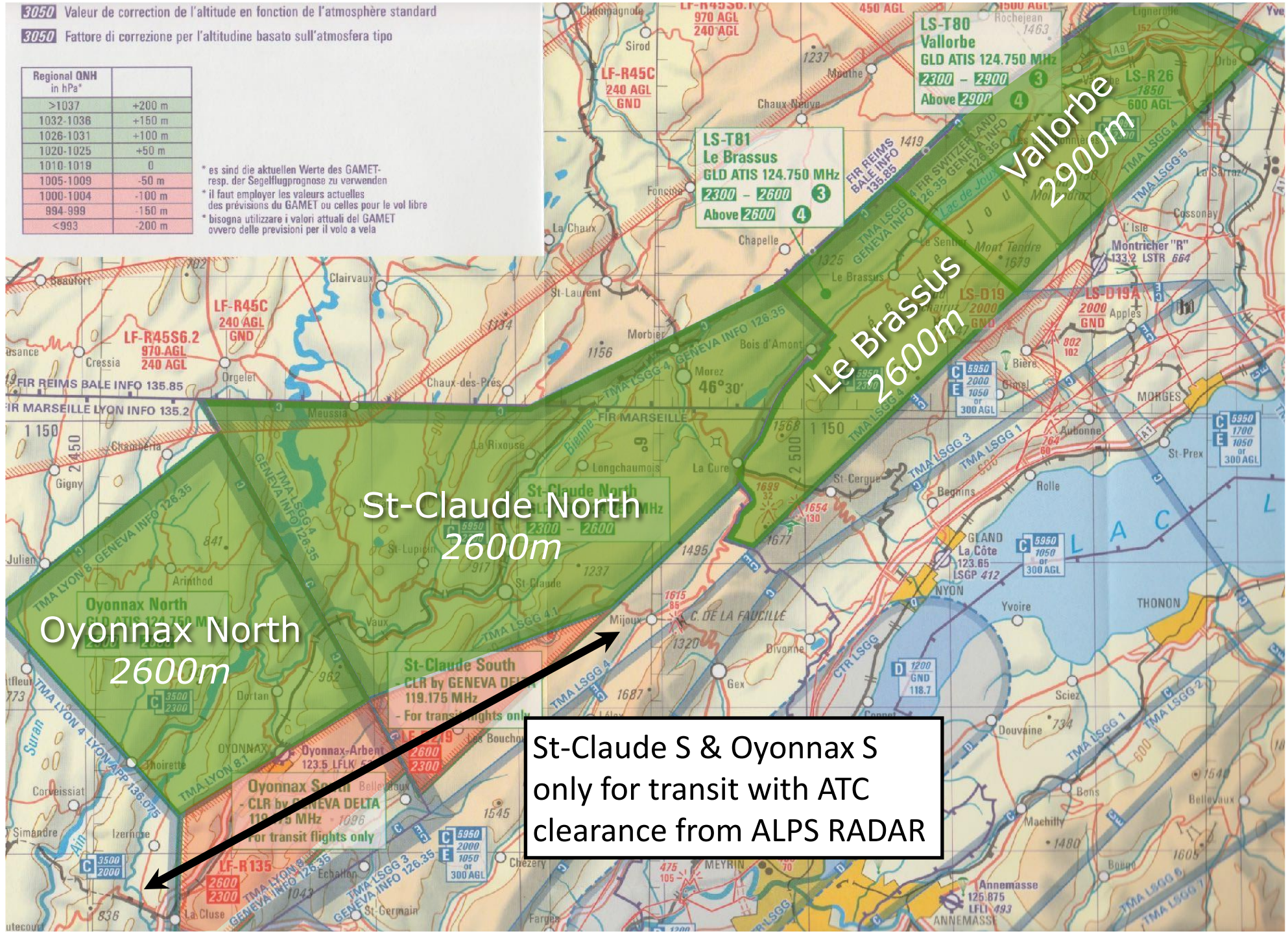


# TMA Genève with LSR for Gliders

**3050** Valeur de correction de l'altitude en fonction de l'atmosphère standard  
**3050** Fattore di correzione per l'altitudine basato sull'atmosfera tipo

Regional QNH in hPa*	
>1037	+200 m
1032-1036	+150 m
1026-1031	+100 m
1020-1025	+50 m
1010-1019	0
1005-1009	-50 m
1000-1004	-100 m
994-999	-150 m
<993	-200 m

\* es sind die aktuellen Werte des GAMET-resp. der Segelflugprognose zu verwenden  
 \* il faut employer les valeurs actuelles des prévisions du GAMET ou celles pour le vol libre  
 \* bisogna utilizzare i valori attuali del GAMET ovvero delle previsioni per il volo a vela



Oyonnax North  
2600m

St-Claude North  
2600m

Le Brassus  
2600m

Vallorbe  
2900m

St-Claude S & Oyonnax S  
only for transit with ATC  
clearance from ALPS RADAR

Designation	MAX ALT <i>m</i> STD Altimeter (FL)	Operator / User TEL NR	Remarks and time of ACT Conditions of use
1	2	3	4
LSR80T VALLORBE  a)	<del>2900</del> <del>2300</del>	+41 (0) 22 747 13 91 GLD ATIS 124.755 MHz	If not active: Advise ALPS RADAR 119.175 MHz If sector activated: Continuous listening watch on FREQ 121.130 MHz ③
	above <del>2900</del>	+41 (0) 22 747 13 91 GLD ATIS 124.755 MHz	If not active: Clearance by ALPS RADAR 119.175 MHz required. ④ If sector activated: Continuous listening watch on FREQ 119.175 MHz
LSR81T LE BRASSUS  a)	<del>2600</del> <del>2300</del>	+41 (0) 22 747 13 91 GLD ATIS 124.755 MHz	If not active: Advise ALPS RADAR 119.175 MHz If sector activated: Continuous listening watch on FREQ 121.130 MHz ③
	above <del>2600</del>	+41 (0) 22 747 13 91 GLD ATIS 124.755 MHz	If not active: Clearance by ALPS RADAR 119.175 MHz required. ④ If sector activated: Continuous listening watch on FREQ 119.175 MHz
TMA GENEVE 4.1 ST-CLAUDE NORTH  b)	<del>2600</del> <del>2300</del>	+41 (0) 22 747 13 91 GLD ATIS 124.755 MHz	If TMA active: Advise ALPS RADAR 119.175 MHz If TMA deactivated: Continuous listening watch on FREQ 121.130 MHz
LF R 219 ST-CLAUDE SOUTH	<del>2600</del> <del>2300</del>	c)	Clearance by ALPS RADAR 119.175 MHz required. For transit flights only
TMA LYON 6.1 Oyonnax North  b)	<del>2600</del> <del>2300</del>	+41 (0) 22 747 13 91 GLD ATIS 124.755 MHz	If TMA active: Advise ALPS RADAR 119.175 MHz If TMA deactivated: Continuous listening watch on FREQ 121.130 MHz
LF R 135 Oyonnax South	<del>2600</del> <del>2300</del>	c)	Clearance by ALPS RADAR 119.175 MHz required. For transit flights only

# Caption

## *Glider TMA Genève*

*Vallorbe & le Brassus:*

a) LSR for Gliders

*St-Claude North & Oyonnax North:*

b) Declassified to airspace Golf

*St-Claude South & Oyonnax South:*

c) LF-R – transit only, clearance required

# New CTR & TMA Zurich

valid as of  
**20 MAR 2025**

## Advantages

- + Smallest possible CTR & TMA
- + Retention of LSR for gliders
- + Less separate sectors
- + Reduction of low TMAs

## Deteriorations

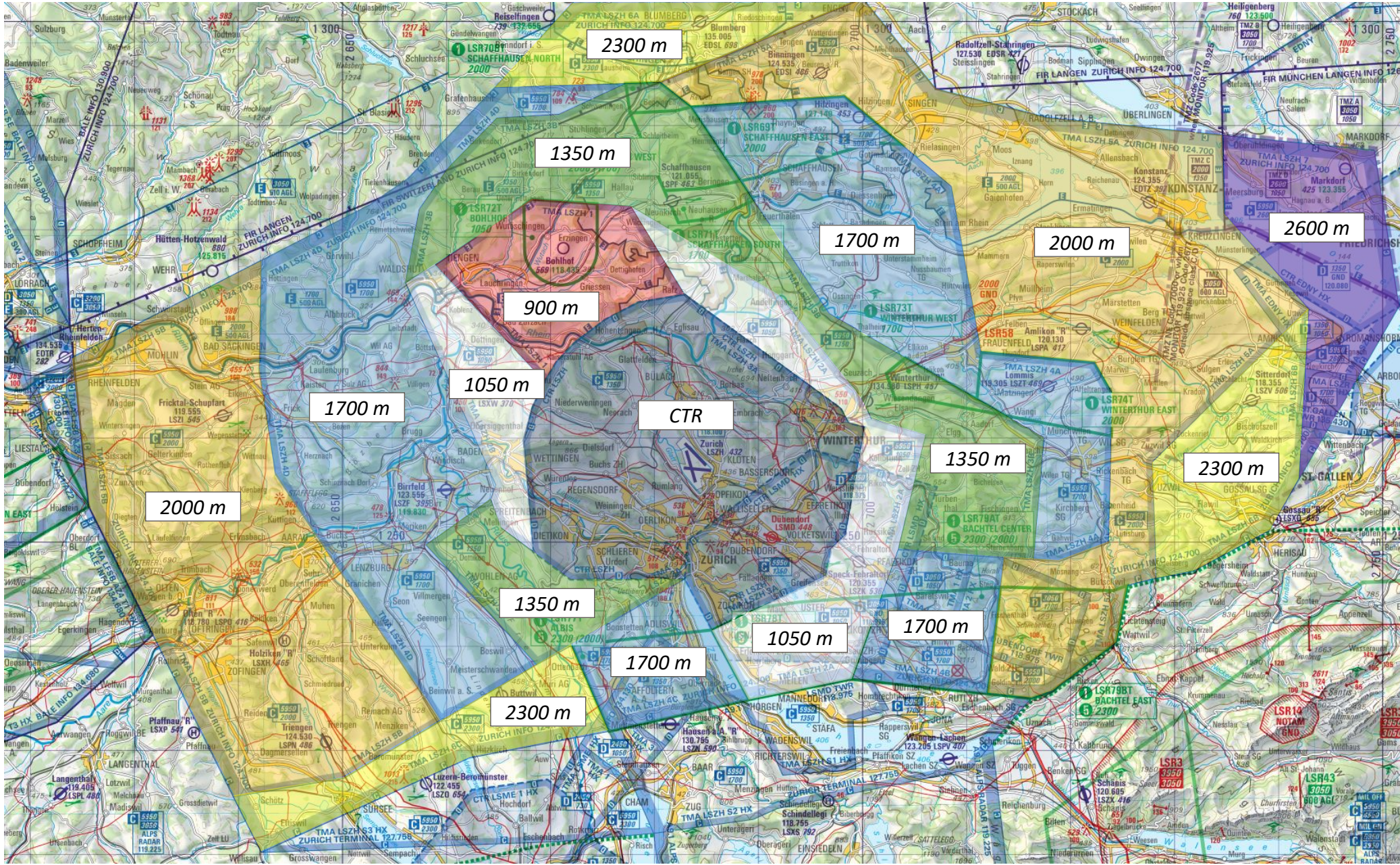
- Locally marginal extension of TMAs
- Complex overlap with Mil HX
- Lots of zigzag lines
- H24 TMA at 1050m south of CTR

*This airspace structure has been developed in a small expert team (including SFVS). It constitutes an acceptable compromise. Variable buffers to instrument flight procedures have been calculated using innovative collision risk modelling. Many local issues have been solved during productive discussions.*

*SFVS appreciates this collaborative effort and fully supports the new CTR & TMA Zurich.*



# New CTR & TMA Zurich: All HX OFF

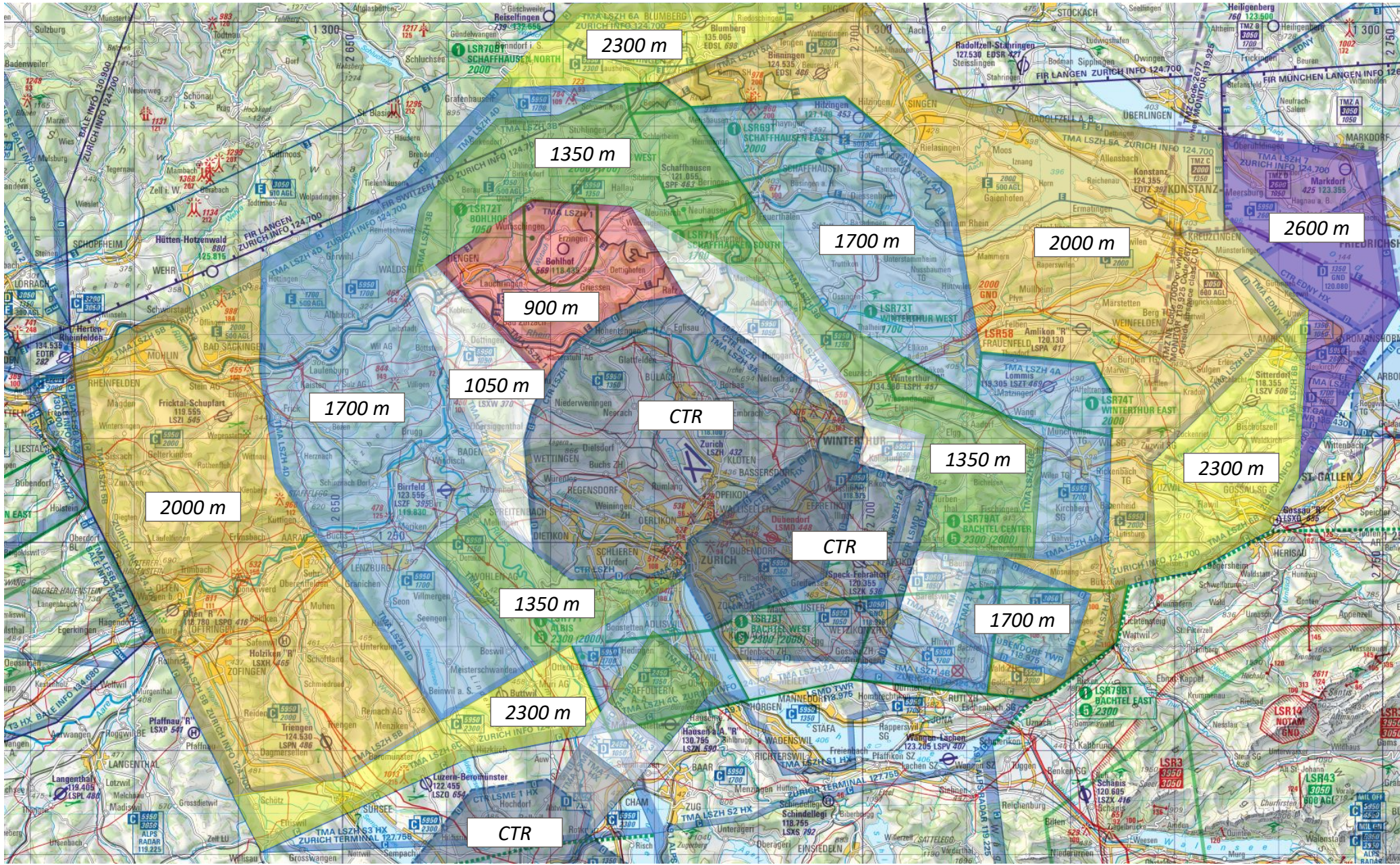


Applicability  
Normal weekend

Charted HX  
LSZH OFF  
LSMD OFF  
LSME OFF

HX Status  
LSMD 118.975  
LSZH 129.005  
LSME 134.130

# New CTR & TMA Zurich: Mil HX ON

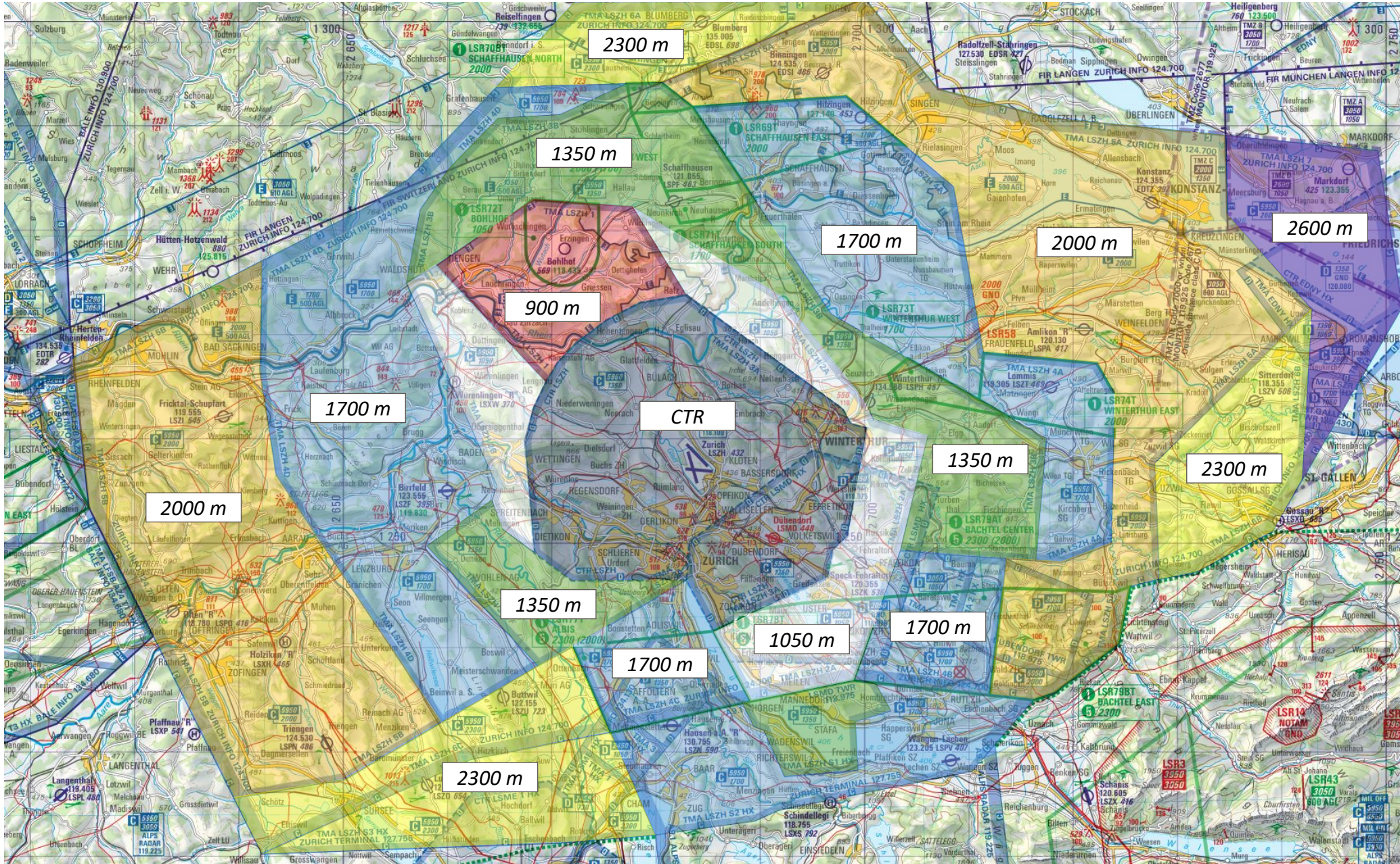


Applicability  
Normal weekdays  
(Mil ON hours)

Chartered HX  
LSZH OFF  
LSMD ON  
LSME ON

HX Status  
LSMD 118.975  
LSZH 129.005  
LSME 134.130

# New CTR & TMA Zurich: Zurich HX ON

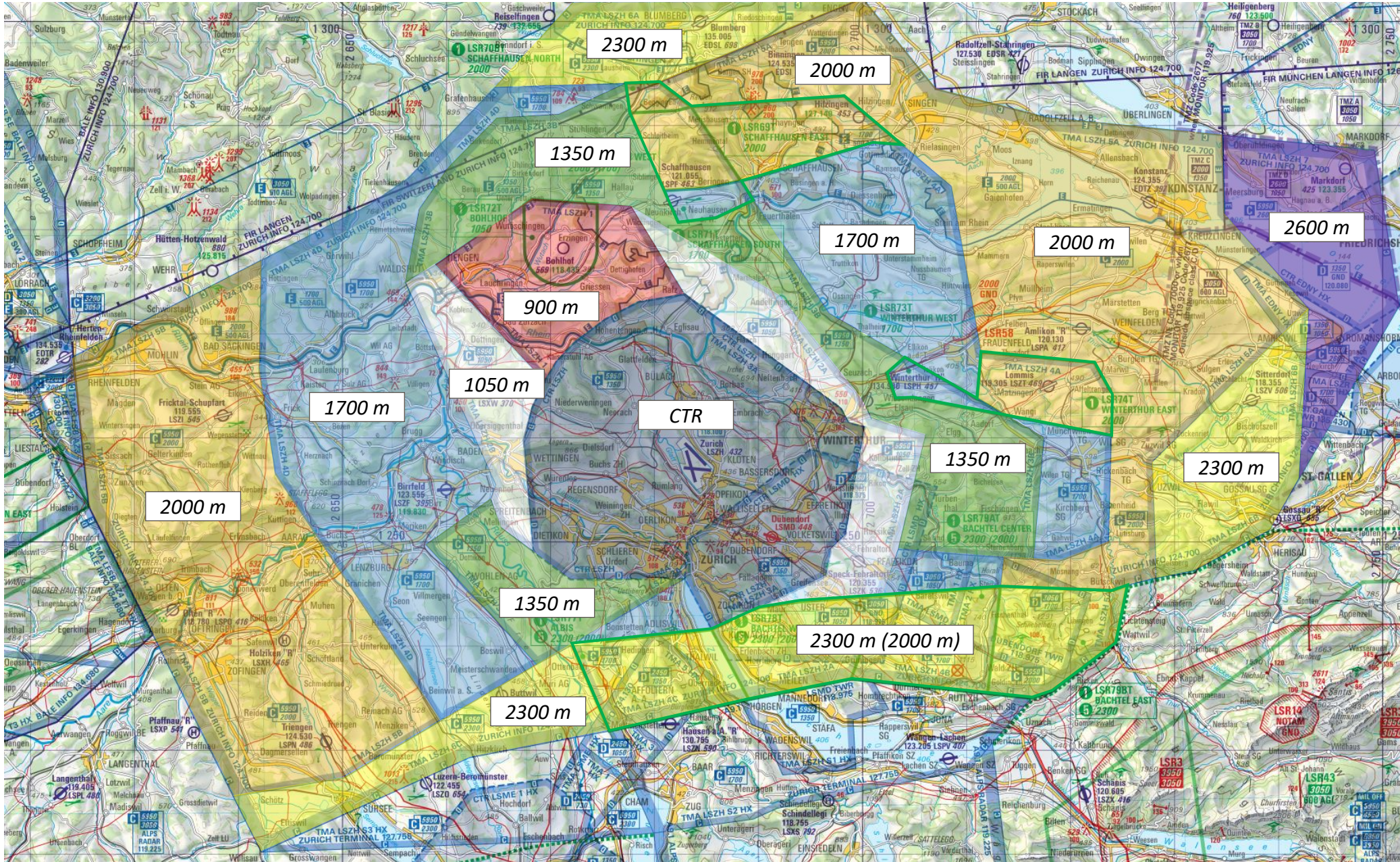


Applicability  
Early morning & late evenings

Chartered HX  
LSZH ON  
LSMD OFF  
LSME OFF

HX Status  
LSMD 118.975  
LSZH 129.005  
LSME 134.130

# New CTR & TMA Zurich: LSR for Gliders



Applicability  
 Activation upon request by local airfield or pilot

Charted HX  
 LSZH OFF  
 LSMD OFF  
 LSME OFF

HX Status  
 LSMD 134.975  
 LSZH 129.005  
 LSME 134.130  
 GLD Info 120.875



# Electronic Conspicuity

*There is no mandate for non-motorized aircraft to carry and operate an SSR transponder in Switzerland.*

## Obligation to operate:

- Aircraft is transponder equipped
  - Sufficient supply of electrical power
- Turn on your transponder!

In practice, a transponder is often required to obtain an ATC clearance for controlled airspace.



# FASST-CH

## *Future Aviation Surveillance Services and Technologies in Switzerland*

- Government initiative to foster innovative solutions for e-conspicuity
- Co-existence of certified and non-certified equipment
- ADS-L, ADS-B, SSR Mode C & S, FLARM, FANET etc.
- Usage of ground-based infrastructure for interoperability
- Substitute/deferral for SSR transponder mandate

→ Mandatory **e**-conspicuity by 2028

→ Path towards **i**-conspicuity by 2035

More information: [FOCA](#)

