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AIP Services
CH-8602 WANGEN BEI DÜBENDORF

VFR Manual

AMDT 007/26

Effective date: JUL 09

1 Beiliegende, in der Kontrollliste mit **R** (Ersatzblatt) oder **N** (neues Blatt) bezeichnete Blätter, **einfügen.**
Alle in der Kontrollliste mit **C** (annulliertes Blatt) bezeichneten Blätter **entfernen**.

Insérer les feuillets ci-joints, identifiés dans la liste de contrôle par un **R** (feuillet de remplacement) ou **N** (nouveau feuillet).
Supprimer les feuillets ci-joints identifiés dans la liste de contrôle par un **C** (feuillet annulé).

Inserire i fogli allegati, contrassegnati sulla lista di controllo con **R** (foglio di sostituzione) o **N** (foglio nuovo).
Togliere tutti i fogli contrassegnati sulla lista di controllo con **C** (foglio annullato).

Insert the attached sheets, identified in the check list by **R** (replacement sheet) or **N** (new sheet).
Remove all sheets identified in the check list by **C** (sheet cancelled).

2	AIC:	Ins VFR Manual aufgenommen: Insérés dans le VFR Manual: Inseriti nel VFR Manual: Incorporated in VFR Manual:	NIL
3	Kontrollliste SUP: Liste de contrôle des SUP: Lista di controllo SUP: Checklist SUP:	Folgende SUP bleiben in Kraft: Les SUP suivants restent en vigueur: I seguenti SUP restano in vigore: Following SUP are still in force:	004/19, 001/20, 005/23, 003/25, 005/25, 001/26, 002/26, 003/26

Alle **zur Zeit gültigen SUP**-Blätter sind in der **CHECK LIST** mit **S** gekennzeichnet.
Toutes les pages **SUP en vigueur** sont désignées par un **S** dans la **CHECK LIST**.
Tutte le pagine **SUP attualmente in vigore** sono contrassegnate da una **S** sulla **CHECK LIST**.
All **SUP** pages **currently in force** are marked with a **S** on the **CHECK LIST**.

GEN, AGA, COM, RAC, MAP, COR

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Disponible:
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SUP 005/23 - LSYT Gebirgslandeplatz Theodulgletscher / Testa Grigia	VFR Supplement 1-4 (DE/FR/IT)		UFN
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Bezeichnung und Referenz Désignation et référence Designazione e referenza Designation and reference	Typ Type Tipo Type	Kode Code Codice Code	Preis CHF inkl. MwSt Prix CHF incl. TVA Prezzo CHF incl. IVA Rate CHF incl. VAT
1 Jahresabonnement Abonnement annuel Abbonamento all'anno Yearly subscription			
1.1 electronic AIP on skybriefing	IFR	eaip	92.50
1.2 electronic VFR Manual on skybriefing	VFR	evfr	53.30
1.3 VFRM elektronisch GEN / AGA / COM / RAC / MAP / COR	VFR		gratis / gratuite gratuito / free of charge
2 Karten / cartes / carte / charts → AIP, GEN 3.2 → VFR Manual, VFR MAP 2, § 1			

1 GENERAL

1.1 Aviation Authorities

Post address	TEL	FAX	AFTN
Federal Office of Civil Aviation CH-3003 Bern info@bazl.admin.ch https://www.bazl.admin.ch/en	+41 (0) 58 465 80 39/40	+41 (0) 58 465 80 32	LSSOYAYX

1.2 Swiss Transportation Safety Investigation Board STSB

Hours of business	TEL	FAX	e-mail:
MON-FRI 0830-1115, 1400-1600 LT	+41 (0) 26 662 33 00	+41 (0) 26 662 33 01	info@SUST.admin.ch
Outside office hours (only to report accident)	14 14 Switzerland +41 333 333 333 International / REGA		

1.3 Addresses of the Air Traffic Services Units

1.3.1 Control Area Geneva

Area Control Centre, Approach Control Office and Aerodrome Control Service Geneva:

Post address	TEL/FAX	AFTN	Remarks
Skyguide **1215 Genève 15**	+41 (0) 22 417 41 11 +41 (0) 22 747 13 40 +41 (0) 22 417 45 10	LSAGZRZX	Aerodrome Control: Geneva AP Fax H24 CENTRE COM

1.3.2 Control Area Zurich

Area Control Centre, Approach Control Office and Aerodrome Control Service Zurich:

Post address	TEL/FAX	AFTN	Remarks
Skyguide **8602 Wangen bei Dübendorf**	+41 (0) 43 931 69 60 +41 (0) 43 931 63 69	LSAZZRZX	Aerodrome Control: Zurich AP Telefax

Approach Control Office and Aerodrome Control Service Bern:

Post address	TEL	AFTN	Remarks
Skyguide **3123 Belp Airport**	+41 (0) 31 960 54 54	LSZBZTZX	Skyguide Flugplatzstrasse 35 Flughafen Bern-Belp 3123 Belp

Lugano Airport Control:

Post address	TEL/FAX	AFTN	Remarks
Skyguide **6982 Agno**	+41 (0) 91 611 50 50 +41 (0) 91 611 50 62	LSZAZTZX	Lugano AP, Terminal Building Fax

2 SEARCH AND RESCUE SERVICE

2.1 SEARCH AND RESCUE SERVICE (RCC)

Postal address:	Schweizer Luftwaffe / Swiss Air Force RCC / OP Zen LW Flugplatz Dübendorf / OZD CH-8600 Dübendorf Switzerland
AFTN:	LSARYCYX
TEL H24:	+41 (0) 58 484 10 00
FAX:	NIL
e-mail:	rcc.lw@vtg.admin.ch

2.2 Search and Rescue Area

Within the national borders of Switzerland and Liechtenstein

3 AERONAUTICAL INFORMATION FOR SWITZERLAND

3.1 Aeronautical Information Publication (AIP)

3.1.1 AIP Services

FOCA instructs Skyguide to publish aeronautical information on the basis of the following legal framework:

Art. 138 Aviation Ordinance (LFV);

Annexes 4 and 15 on the agreement on international civil aviation and the ICAO documents.

3.1.2 AIP and VFR Manuals

The Swiss Aeronautical Information Publication **AIP Switzerland** with **Information** that is continuously valid and important for aviation safety. AIP Switzerland contains the prescribed flight paths and airspaces (Art. 8, Paragraph 7 Swiss Aviation Act (LFG) and the binding approach and take-off procedures (Art. 25 Swiss Ordinance on Aviation Infrastructure (VIL)); the pilot in command is responsible for piloting the aircraft in accordance, among other things, with **regulations contained in** the AIP and VFR Manual (Art. 7, Ordinance on Special Category Aircraft (OSCA).

General texts are published in German, French, Italian and English.

Parts where the text and charts refer to a **specific aerodrome** are in the official language of the region, as well as English.

The manual is amended in accordance with ICAO Annex 15 (AIRAC) by means of **updates**.

A **checklist** for the contents of the manual accompanies the update.

The bold line in the margin of the text indicates the **correction**.

- The text in question is **new**.
- The previous text is rescinded.

Orders:	AIP-Versand Postfach 3052 Zollikofen
TEL	+41 (0) 31 910 32 56 (0730-1200 LT)
FAX	+41 (0) 31 910 33 35
E-mail:	aipversand@skyguide.ch

International Aeronautical Publications (AIP) can be inspected at the following AIS locations:

Geneva: Jeppview

Lugano Bottlang

Zurich: AIP for the whole world

4 **SKYBRIEFING**

Skybriefing is the official solution for preparing a flight and the platform for the publication of the VFRM Switzerland, which is provided by skyguide on behalf of the Federal Office of Civil Aviation (FOCA).

The following information can be viewed and printed out via www.skybriefing.com

METEO:

- METAR (WORLD)
- WEATHER RADAR (CH)
- SATELLITE IMAGES (WORLD)
- SwissMetNet
- TAF (WORLD)
- SIGWX
- SIGWX LOW
- WIND & TEMP
- Low-Level SWC Alps, W/T Chart, Wind Barbs, QNH Chart
- GAFOR (CH)
- AVIATION WEATHER FORECAST (CH)
- GLIDER FORECAST (CH)
- SIGMET
- AIRMET
- VOLCANIC ASH ADVISORY
- TROPICAL CYCLONE ADVISORY

COUNTRY-SPECIFIC PRODUCTS

- DABS (DAILY AIRSPACE BULLETIN SWITZERLAND)

NOTAM BRIEFING:

- STANDARD ROUTE BRIEFING
- STANDARD NARROW ROUTE BRIEFING
- AREA BRIEFING
- AERODROME BRIEFING

The skybriefing flight advisory system also enables:
- the **entry** and **transmission** of an **ICAO flight plan** to the relevant air traffic control service.
- Flight-plan asociated mesages (CHG; DLA; CNL) and ARR messages.

4.1 **NOTAM**

The NOTAM are divided into three series A, B and W and published in English with ICAO abbreviations.

A checklist of NOTAM is published for all series on the first day of each month.

Contents:

Series A: NOTAM relating to Zurich and Geneva airports. Exception: Information for HEL and VFR traffic are published in series B.

NOTAM for cross-country flights with the following content:

- Airspace organisation and structure
- Radio navigation equipment
- Communication equipment and radar equipment
- Procedures

Distribution of information of general interest: International (global).

Series B: All civil aerodromes not published in series A.
Information for VFR traffic.
Information referring to military CTR/TMA and GNSS.
En route obstacles. National airways.
Distribution: International (Europe).

Series W: Navigation warnings and airspace restrictions
Distribution: International (Europe).

The NOTAM can be accessed with a personal user account at www.skybriefing.com

4.2 **Daily Airspace Bulletin Switzerland (DABS)**

The Daily Airspace Bulletin DABS is part of Switzerland's official aeronautical publications and, using the NOTAM publications, illustrates in graphical form the current status of the airspace. It also provides added assistance for VFR pilots preparing flights.

- Activation of P, R, and D areas and TEMPO TMA
- TEMPO TMA/CTR activations.
- Military firing above 250m/ground

The basis is a geographical map of Switzerland showing aerodromes and a simplified illustration of the airspaces (CTR/TMA). Flight restriction areas (R areas), danger zones (D areas), prohibited areas (P areas) and airspace activations for TEMPO TMA are illustrated on the DABS chart. Other NOTAM of series W, (e.g. PJE, GLD, Air Display) and NOTAM that affect all or part of Swiss territory (e.g. MIL night flights) are only indicated in the text section if a symbol already exists with the corresponding activity on the ICAO chart. If there is no symbol on the ICAO chart, FOCA makes a decision depending upon the situation.

To prevent airspace violations, no additional, plannable airspace restrictions will be approved during the current day. The only exception is "imminent danger" (unforeseen and urgent airspace closures as the result of an accident or catastrophe). Regardless of the time, this publication can trigger a new DABS publication.

The DABS incorporates NOTAM information at the time of its publication. Airspace restrictions which are not used (released prematurely) or have expired at the time of update, will not be indicated in the next publication. In between the fixed publication times the NOTAM will be updated without delay. This could lead to discrepancies between the NOTAM and DABS information.

The latest information can be obtained from:

- Flight Information Control (FIC) Geneva 126.350 MHz.
- Flight Information Control (FIC) Zurich 124.700 MHz.
- KOSIF (phone number +41 44 813 31 10).

DABS is published by skyguide AIM Services and can be accessed by visiting www.skybriefing.com.

DABS creation (initial version)

Publication takes place daily at 16:00 hours (local time) and shows all airspace restrictions applying to the following day. No additional airspace restrictions will be published after this time. (Version 1)

DABS Update

A new publication, which is valid immediately, will be made available at 9:00 / 13:00 / 16:00 (local time).

Night flights undertaken by the Swiss Air Force will be listed on the DABS by 16:00 at the latest, for the current day. REF: MIL night flights VFR RAC 3-2-3

4.3 **Aeronautical Information Circular AIC**

National and international AIC are intended for the following information:

- Administrative Information;
- Issues which neither justify a NOTAM nor an AIP supplement;
- Description of complex changes/restrictions, e.g. building works.

The AIC are divided into three series:

Series A: International series in English
→ Internet: https://www.skybriefing.com/aic-series-a

Series B: National series
→ Internet: https://www.skybriefing.com/aic-series-b

Series C: AIC with a directive character for service units.

5 **SWISS LEGISLATION GOVERNING CIVIL AVIATION**

5.1 The Federal Law governing Civil Aviation (Swiss Federal Civil Aviation Act SR 748.0) and the associated laws and ordinances are published on the internet under:
https://www.admin.ch/gov/de/start/bundesrecht/systematische-sammlung.html

6 **Military Operating Hours**

Lower limit of airspace class C "Alps"

MIL ON = FL130

MIL OFF = FL150

NB: See also the LSR restrictions for gliders outside TMA which are relevant for the status MIL ON and MIL OFF.

MIL ON:

MON-FRI: 0730 - 1205 LT, 1315 - 1705 LT

deviations therefrom are published by NOTAM.

MIL OFF:

Outside the times mentioned above and on the following days:

- New Years Day
- Berchtoldstag (Swiss public holiday in January)
- Good Friday
- Easter Monday
- Ascension Day
- Whit Monday
- Swiss National Day
- Assumption Day
- Christmas Eve
- Christmas Day
- Boxing Day
- New Year's Eve

- **TEMPO MIL TMA**
  ACT: → NOTAM
  TMA MIL TEMPO
  ACT: NOTAM
- **MIL night flights**:
  in accordance with NOTAM exceptions:
  Air Policing and SAR/FLIR missions

7 **Reporting of aircraft accidents and incidents**

7.1 **Legal basis**

- Article 23 of the Federal Aviation Act (AA) (CC 748.0) of 21 December 1948 (status as at 1 September 2014);
- Regulation (EU) No. 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94/56/EC;
- Ordinance on the Safety Investigation of Transport Incidents (OSITI) (CC 742.161) of 17 December 2014, status as at 1 February 2015;
- Regulation (EU) No. 376/2014 of the European Parliament and of the Council of 3 April 2014 on the reporting, analysis and follow-up of occurrences in civil aviation, amending Regulation (EU) No. 996/2010 of the European Parliament and of the Council and repealing Directive 2003/42/EC of the European Parliament and of the Council and Commission Regulations (EC) No. 1321/2007 and (EC) No. 1330/2007.

7.2 **Principles**

There are two reporting channels:

a) To the Swiss Transportation Safety Investigation Board STSB.
b) To the Federal Office of Civil Aviation FOCA.

7.2.1 **a) To the Swiss Transportation Safety Investigation Board STSB: accidents and serious incidents:**

According to Art. 23 AA in conjunction with Art.17 OSITI, accidents and serious incidents involving manned and unmanned aircraft on Swiss territory or involving aircraft registered in Switzerland abroad must be reported immediately to the reporting centre of the Swiss Transportation Safety Investigation Board (STSB). The STSB reporting centre is the alarm centre of Swiss Air Rescue and has the following telephone numbers: in Switzerland 1414, from abroad +41 333 333 333. Only incidents where it is not clear from the outset that they constitute serious incidents may be reported within 72 hours to info@sust.admin.ch .

7.2.2 **Reporting obligation**

All persons involved in an accident or a serious incident, in particular crew members, operators and owners of an aircraft, maintenance personnel, air traffic control personnel, trainers of aviation personnel, employees of aerodromes and of the supervisory authority, as well as the police and customs authorities, shall notify without delay the Swiss Transportation Safety Investigation Board (STSB) (cf. Art. 9 and 2 Reg. (EU) 996/2010 in conjunction with Art. 23 AA and Art.17. OSITI). Violation of the reporting obligation is punishable in accordance with Art. 23 Reg. (EU) 996/2010 in conjunction with Art.

7.2.3 **Definition**

An accident is an occurrence in the operation of a manned or unmanned aircraft in which a person has been fatally or seriously injured, the aircraft has sustained substantial damage, has gone missing or is completely inaccessible. For the detailed definition of an accident and a serious incident see Art. 2 paras. 1, 5 and 17 Reg. (EU) 996/2010.

A serious incident is an incident the circumstances of which indicate that there was a high probability of an accident associated with the operation of a manned or unmanned aircraft. Typical examples of serious incidents are the following occurrences:

- Engine failures or engine fires;
- Forced landings;
- Unintentional convergences of two aircraft (airprox, near-collisions, runway incursion);
- Fires or smoke inside the aircraft, even if it was possible to extinguish the fire or suppress the smoke;
- VFR flights into IMC;
- Controlled flight into terrain only marginally avoided;
- Events requiring the emergency use of oxygen by the flight crew;
- Failure of multiple redundant systems on board or of air traffic control equipment;
- Fuel shortage;
- Flight crew incapacitation in flight;
- Overrunning the runway or lateral departure from the runway on take-off or landing.

For the detailed definition of a serious incident, see Art. 2 paras. 7 and 16 Reg. (EU) 996/2010 in conjunction with Art. 5 OSITI, as well as the Annex to Reg. (EU) 996/2010.

An occurrence means an occurrence other than an accident associated with the operation of an aircraft that affects or could affect the safety of operation; for the detailed definition of an occurrence see Art. 2 para. 7 Reg. (EU) 996/2010 in conjunction with Art. 5 OSITI.

In case of doubt, the STSB is to be informed via the telephone reporting channel (in Switzerland 1414, from abroad +41 333 333 333). The duty investigator will immediately contact the enquirer and take a decision on subsequent action.

7.2.4 **b) To the Federal Office of Civil Aviation FOCA: all occurrences, serious incidents and accidents**

- All occurrences, serious incidents and accidents involving manned and unmanned aircraft which are covered by article 4 of Regulation (EU) No. 376/2014 must be reported within 72 hours by the persons involved (pilots, manufacturer's personnel , maintenance companies, air traffic control, airports and ground handling services) to the Federal Office of Civil Aviation (FOCA) or to the reporting system of the respective undertaking (www.aviationreporting.eu). Occurrences, serious incidents or accidents involving unmanned aircraft of the "open" category are exempted from the reporting obligation if no serious or fatal injury to persons is recorded and no manned aircraft are involved.

With regard to security, the standards from the NASP (National Civil Aviation Security Programme Switzerland, section 13) apply.

7.3 **GPS reception**

Throughout the entire airspace, gaps and interference with GPS signals are to be expected, especially south of the Alps.

7.4 **False alarm by the emergency local transmitter (ELT)**

- As a result of increased reception sensitivity and denser coverage due to the SARSAT/ COSPAS satellites, the search and rescue centre (RCC) in Zurich frequently receives alerts from the receiving station in Toulouse. **In most cases they are false alarms**.

- In the interests of airspace users who find themselves in a real emergency it is worth revisiting the following recommended procedure to avoid distress signals of this nature:

a) Listen on EMERG FREQ **121.500** MHz prior to and after each FLT (these operations shall be part of the checklist);

b) If the ACFT has suffered strong shocks, e.g. during a hard LDG, when crossing thresholds of hangar doors, during loading, transporting or unloading of gliders, etc., also verify the ELT is off on EMERG FREQ;

c) ELT live Test are prohibited. ELT Self tests may be carried out in accordance to the ELT manufacturer manual. 406 MHz ELTs tests have to be carried out by an APV MAINT facility using APV test equipment. Following procedure is only valid for ELTs solely transmitting on 121.500 MHz. For a very brief period during the first MIN after any HR (on the HR). To do this, set the ELT from "ARM" to "ON", then to **"OFF"**, setting it to "ARM" AGN;

d) For major MAINT works on the ACFT, the ELT shall be removed and batteries shall be disconnected or removed. Batteries shall be replaced in accordance with the ELT manufacturer manual.

- If an ELT transmits a signal for no apparent reason, the RCC in Zurich or the responsible air traffic authority is to be notified, giving the duration of the transmission and the location, so that the alarm can be cancelled:

RCC Zurich	TEL +41 (0) 58 484 10 00 or
ACC Zurich	TEL +41 (0) 43 931 69 60 or
ACC Geneva	TEL +41 (0) 22 747 13 40.

7.5 **False alerts as a result of being overdue (INCERFA)**

When landing at an uncontrolled aerodrome, the ATC flight plan must be closed personally by the PIC immediately after the landing.

- Toll-free telephone number +41 (0) 800 437 837
  [(0) 800 IFR VFR]

- By radio to FIC Zurich or FIC Geneva.

- INCERFA is triggered taking into account the following factors:
  ATOT or EOBT & EET from the flight plan & 30 min.

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1 **ABBREVIATIONS**

REF ICAO Doc 8400/4, PANS-ABC

[ ] Within brackets: symbol of a unit of the international System of Units SI of a non-SI unit used in conjunction with the system

* *not in PANS-ABC*

† *transmitted in RTF as a spoken* ***word***

Specific meteorological abbreviations have **not** been included in the list below. An **"Aeronautical meteorological information in Switzerland" quick reference guide** (which includes a key to the abbreviations and symbols used in aeronautical meteorological information), can be downloaded in pdf format at

https://www.meteoswiss.admin.ch/services-and-publications/service/weather-and-climate-products/aviation-weather.html

or ordered as a hard copy from: fwinfo@meteoschweiz.ch.

ABKÜRZUNGEN

REF ICAO Doc 8400/4, PANS-ABC

[ ] In Klammern: Symbol des Internationalen Einheiten-Systems SI, oder Einheiten ausserhalb SI, welche mit den SI-Einheiten angewandt werden
** nicht in den PANS-ABC enthalten*
† wird im RTF als ***Wort*** *ausgesprochen*

METEO spezifische Abkürzungen sind in dieser Liste **nicht** enthalten. Die **Kurzreferenz "Flugwetterinformationen in der Schweiz"** (enthält Abkürzungen und Symbole für das Entschlüsseln von Flugwetterinformationen) kann als pdf unter

https://www.meteoschweiz.admin.ch/service-und-publikationen/service/wetter-und-klimaprodukte/flugwetter.html

oder als Hardcopy bezogen werden: fwinfo@meteoschweiz.ch.

ABBREVIATIONS

REF Doc 8400/4 OACI, PANS-ABC

[ ] Entre crochets: symbole d'unité du système international d'unité SI ou d'unité hors SI mais utilisée avec les unités de ce système

** hors PANS-ABC*

† *énoncé en tant que* ***mot*** *en RTF*

Les **abréviations spécifiques** concernant la **METEO** ne sont pas contenues dans cette liste. Le **manuel de référence "Informations météorologiques destinées à l'aviation en Suisse"** (contient des abréviations et des symboles utiles à la lecture des informations météorologiques aéronautiques) peut être téléchargé au format pdf sur le site

https://www.meteosuisse.admin.ch/services-et-publications/service/produits-meteorologiques-et-climatiques/meteorologie-aeronautique.html

ou commandé sur papier à l'adresse: fwinfo@meteoschweiz.ch.

ABBREVIAZIONI

REF ICAO Doc 8400/4, PANS-ABC

[ ] Tra parentesi: simbolo d'unità del sistema internazionale d'unità SI o d'unità non SI ma utilizzato con le unità di questo sistema

* *non figura nelle PANS-ABC*

† *nella RTF è articolata come una* ***parola***

Questa lista non contiene le **specifiche abbreviazioni METEO**. Il **riferimento meteo aeronautico "Informazioni meteorologiche per l'aviazione in Svizzera"** (comprendente abbreviazioni e simboli per decifrare le informazioni relative alle condizioni atmosferiche) è disponibile in formato pdf all'indirizzo

https://www.meteosvizzera.admin.ch/servizi-e-pubblicazioni/prestazioni/prodotti-meteorologici-e-climatici/meteorologia-per-l-aviazione.html

Per la versione cartacea: fwinfo@meteoschweiz.ch.

A

A	Amber Gelb Ambre Giallo ambra
A/A	Air-to-air Bord/Bord Air-air Aria/aria
AAL	Above aerodrome level Über Flugplatzhöhe Par le travers de Al di sopra del livello dell'aerodromo
ABM	Abeam Querab Par le travers de Al traverso di
ABN	Aerodrome beacon Flugplatzleuchtfeuer Phare d'aérodrome Faro di aerodromo
ABV	Above Darüber, oberhalb Au-dessus de Al di sopra di
AC	Altocumulus Altocumulus Altocumulus Altocumulus
ACC	Area control centre *or* area control Bezirksleitung, Bezirksleitstelle Centre de contrôle régional *ou* contrôle régional Centro di controllo regionale *o* controllo regionale
ACFT	Aircraft Luftfahrzeug Aéronef Aeromobile
ACK	Acknowledge Empfang bestätigen Accusez réception Accusate ricezione
ACT	Active *or* activated *or* activity In Betrieb *oder* in Kraft *oder* Betrieb En service *ou* en activité *ou* activité In servizio *o* in attività *o* attività
AD	Aerodrome Flugplatz Aérodrome Aerodromo
ADA	Advisory area Beratungsbezirk Région à service consultatif Regione a servizio consultivo

ADF	Automatic direction finding equipment Automatisches Peilgerät Radiogoniomètre automatique Radiogoniometro automatico
ADIZ†	Air defence identification zone Flugüberwachungszone Zone d'identification de la défense aérienne Zona d'identificazione della difesa aerea
ADJ	Adjacent Angrenzend, benachbart Adjacent Adiacente
ADR	Advisory route Luftweg Route à service consultatif Rotta a servizio consultivo
ADS-B*	Automatic dependent surveillance - broadcast Automatische abhängige Überwachung - Rundfunksendung Surveillance dépendante automatique en mode diffusion Sorveglianza dipendente automatica in modo diffusione
ADVS	Advisory service Beratungsdienst Service consultatif Servizio consultivo
ADZ	Advise Benachrichtigen Rendez compte Avviso
AFIL	Flight plan filed in the air Im Fluge eingereichter Flugplan Plan de vol déposé en vol Piano di volo compilato in volo
AFIS	Aerodrome flight information service Flugplatzinformationsdienst Service d'information de vol d'aérodrome Servizio d'informazione di volo d'aerodromo
AFS	Aeronautical fixed service Fester Flugfernmeldedienst Service fixe aéronautique Servizio fisso aeronautico
AFTN	Aeronautical fixed telecommunication network Festes Flugfernmeldenetz Réseau du service fixe des télécommunications aéronautiques Rete del servizio fisso delle telecomunicazioni aeronautiche
A/G	Air-to-ground Bord/Boden Air-sol Aria/terra
AGA	Aerodromes, air routes and ground aids Flugplätze, Flugstrecken und Bodenhilfen Aérodromes, routes aériennes et installations au sol Aerodromi, rotte aeree ed assistenze a terra

AGL	Above ground level Höhe über Grund Au-dessus du niveau du sol Al di sopra del livello del suolo
AIC	Aeronautical information circular Luftfahrtinformationsblatt Circulaire d'information aéronautique Circolare d'informazioni aeronautiche
AIP	Aeronautical information publication Luftfahrthandbuch Publication d'information aéronautique Pubblicazione d'informazioni aeronautiche
AIRAC	Aeronautical information regulation and control Regelung der Verbreitung von Luftfahrtinformationen Régularisation et contrôle de la diffusion des renseignements aéronautiques Regolamentazione e controllo delle notizie aeronautiche
AIREP†	Air-report Flugmeldung Compte rendu en vol Rapporto in volo
AIS	Aeronautical information services Luftfahrtinformationsdienste Services d'information aéronautique Servizi d'informazione aeronautica
ALA	Alighting area Landebereich Aire d'amerrissage Area di atterraggio
ALERFA†	Alert phase Bereitschaftsstufe Phase d'alerte Fase di allarme
ALR	Alerting *(message type designator)* Alarmierung *(Kennung der Meldung)* Alerte *(désignateur de type de message)* Allarme *(designazione del tipo di messaggio)*
ALRS	Alerting service Alarmdienst Service d'alerte Servizio di allarme
ALS	Approach lighting system Anflugbefeuerungssystem Dispositif lumineux d'approche Dispositivo luminoso d'avvicinamento
ALT	Altitude Höhe über Meer Altitude Altitudine
ALTN	Alternate (aerodrome) Ausweichflugplatz Dégagement (aérodrome de) Aeroporto di dirottamento

AMA	Area minimum altitude Gebietsmindesthöhe Altitude minimale de zone Quota minima di zona
AMC	Airspace Management Cell Luftraum Koordinations Stelle Cellule de coordination de l'espace aérien Cellula di gestione dello spazio aereo
AMD	Amend *or* amended Ändern *oder* geändert Amendez *ou* amendé Variare *o* variato
AMDT	Amendment *(AIP amendment)* Nachtrag *(AIP Nachtrag)* Amendement *(amendement AIP)* Emendamento *(emendamento AIP)*
AMS	Aeronautical mobile service Beweglicher Flugfunkdienst Service mobile aéronautique Servizio mobile aeronautico
AMSL	Above mean sea level Über der mittleren Meereshöhe Au-dessus du niveau moyen de la mer Al di sopra del livello medio del mare
ANS	Answer Antworten Sie Répondez Rispondete
AOC	Aerodrome obstacle chart Flugplatz-Hinderniskarte Carte d'obstacles d'aérodrome Carta d'ostacoli d'aerodromo
AP	Airport Flughafen Aéroport Aeroporto
APAPI†	Abbreviated precision approach path indicator Vereinfachte Präzisions-Gleitwinkelbefeuerung Indicateur de trajectoire d'approche de précision simplifié Indicatore ottico di pendenza ridotto, per avvicinamenti di precisione
APCH	Approach Anflug Approche Avvicinamento
APN	Apron Vorfeld Aire de trafic Rampa
APP	Approach control office *or* approach control *or* approach control service Anflugleitung, Anflugleitstelle, Anflugleitdienste Bureau du contrôle d'approche *ou* contrôle d'approche *ou* service du contrôle d'approche Ufficio controllo di avvicinamento *o* controllo di avvicinamento *o* servizio di controllo di avvicinamento

APP*	Appendix Anhang Appendice Appendice
APR	April April Avril Aprile
APRX	Approximate *or* approximately Annähernd Approximativement Approssimato *o* approssimativamente
APV	Approve *or* approved *or* approval Genehmigen Sie *oder* genehmigt *oder* Genehmigung Approuvez *ou* approuvé *ou* approbation Approvate *o* approvato *o* approvazione
ARO	Air traffic services reporting office Meldestelle der Verkehrsdienste der Flugsicherung Bureau de piste des services de la circulation aérienne Ufficio di pista dei servizi della circolazione aerea
ARP	Aerodrome reference point Flugplatzbezugspunkt Point de référence d'aérodrome Punto di riferimento d'aerodromo
ARR	Arrive or arrival Ankommen oder Ankunft Arriver *ou* arrivée Arrivare *o* arrivo
ARR	Arrival *(message type designator)* Ankunft *(Kennung der Meldung)* Arrivée *(désignateur de type de message)* Arrivo *(designazione del tipo di messaggio)*
AS	Altostratus Altostratus Altostratus Altostratus
ASDA	Accelerate-stop distance available Verfügbare Startabbruchstrecke Distance accélération-arrêt utilisable Distanza disponibile per l'accelerazione-arresto
A-SMGCS*	Advanced surface movement guidance and control system Verbessertes Oberflächenbewegungsleitung- und Steuersystem Système amélioré de guidage et de contôle de la circulation de surface Sistema migliorato d'orientamento e di controllo della circolazione di superficie
ASPH	Asphalt Asphalt Asphalte Asfalto
ASTA	Climatological station Klimastation Station climatologique Stazione climatologica

ATA	Actual time of arrival Tatsächliche Ankunftszeit Heure d'arrivée réelle Ora effettiva di arrivo
ATC	Air traffic control *(in general)* Flugverkehrsleitung *(im Allgemeinen)* Contrôle de la circulation aérienne *(en général)* Controllo della circolazione area *(in generale)*
ATD	Actual time of departure Tatsächliche Abflugszeit Heure de départ réelle Ora effettiva di partenza
ATFM	Air traffic flow management Verkehrsflussregelung Gestion des courants de trafic aérien Gestione del flusso del traffico aereo
ATIS†	Automatic terminal information service Automatische Ausstrahlung von Lande- und Startinformationen Service automatique d'information de région terminale Servizio automatico d'informazione terminale
ATM	Air traffic management Flugverkehrsmanagement Gestion du trafic aérien Gestione del traffico aereo
ATN	Aeronautical telecommunication network Flugfernmeldenetz Réseau de télécommunications aéronautiques Rete di telecomunicazioni aeronautiche
ATS	Air traffic services Verkehrsdienste der Flugsicherung Services de la circulation aérienne Servizi della circolazione aerea
ATZ	Aerodrome traffic zone Flugplatzverkehrszone Zone de circulation d'aérodrome Zona di circolazione d'aerodromo
AUG	August August Août Agosto
AUTH	Authorize *or* authorization Ermächtigen *oder* Ermächtigung Autorisé *ou* autorisation Autorizzato *o* autorizzazione
AUW	All up weight Gesamtgewicht Poids total Peso totale
AVBL	Available Verfügbar Disponible Disponibile

AVGAS†	Aviation gasoline Flugtreibstoff Carburant d'aviation Carburante d'aviazione
AWY	Airway Luftstrasse Voie aérienne Aerovia
AZM	Azimuth Azimut Azimut Azimut

B

B	Blue Blau Bleu Azzurro
BA	Braking action Bremswirkung Freinage Azione frenante
BASE†	Cloud base Wolkenuntergrenze Base des nuages Base principale delle nubi
BCFG	Fog patches Nebelschwaden Bancs de brouillard Banchi di nebbia
BAZL*	Federal Office of Civil Aviation *(FOCA, OFAC, UFAC)* Bundesamt für Zivilluftfahrt *(FOCA, OFAC, UFAC)* Office fédéral de l'aviation civile *(FOCA, OFAC, UFAC)* Ufficio federale dell'aviazione civile *(FOCA, OFAC, UFAC)*
BCN	Beacon *(aeronautical ground light)* Leuchtfeuer *(Luftfahrtbodenfeuer)* Phare *(feu aéronautique à la surface)* Faro *(luce aeronautica a terra)*
BCST	Broadcast Rundfunk, Rundfunksendung Diffusion Radiodiffusione
BDRY	Boundary Umgrenzung Limite, délimination Limite o delimitazione
BFR	Before Vor oder vorher Avant Prima di

BKN	Broken Unterbrochen, gebrochen Fragmenté Frammentato o frammentario
BL ...	Blowing *(follow by DU = dust, SA = sand or SN = snow)* *Aufgewirbelt (gefolgt von DU = Staub, SA = Sand oder SN = Schnee)* Chasse. élevée *(accompagnant DU = poussière, SA = sable, ou SN = neige)* *Soffiaggio (seguito da DU = polvere, SA = sabbia o SN = neve)*
BLDG	Building Gebäude Bâtiment Edificio
BLO	Below clouds Unterhalb von Wolken Au-dessous des nuages Al disotto delle nubi
BR	Mist Feuchter Dunst Brume Foschia
BRG	Bearing Peilung Relèvement Rilevamento
BRKG	Braking Bremse Freinage Frenata
BTN	Between Zwischen Entre Tra *(in mezzo a)*

C

C [°C]	Degrees Celsius Celsiusgrade Degrés Celsius Gradi Celsius
C	Centre *(runway identification)* Mittlere Piste *(Pistenkennung)* Centre *(identification de piste)* Centro *(identificazione di pista)*
CAG*	General Aviation Centre (GAC) Leichtfliegerei-Zentrum (GAC) Centre d'aviation générale (GAC) Centro d'aviazione generale (GAC)
CAT	Clear air turbulence Turbulenz in wolkenfreier Luft Turbulence en air clair Turbolenza con cielo sereno

CAT	Aircraft categorie Flugzeugkategorie Catégorie d'avion Categoria di aeri
CAVOK†	Visibility, clouds and present weather better than prescribed values or conditions (KAV-OH-KAY) Sicht, Wolken und gegenwärtiges Wetter besser als vorgeschriebene Werte oder Bedingungen (KAV-OH-KAY) Visibilité, nuages et temps présent meilleurs que valeurs ou conditions prescrites (KAV-OH-Ké) Visibilità, nubi e tempo attuali migliori dei valori o delle condizioni prescritti (KAV-OH-KAY)
CB	Cumulonimbus Cumulonimbus Cumulonimbus Cumulonimbus
CC	Cirrocumulus Cirrocumulus Cirrocumulus Cirrocumulus
CGL	Circling guidance light(s) Platzrundenführungsfeuer Feu(x) de guidage sur circuit Luce(i) di guida per la circuitazione
CH	Channel Kanal Canal Canale
CHG	Modification of flight plan *(message type designator)* Flugplan Änderung *(Kennung der Meldung)* Modification de plan de vol *(désignateur de type de message)* Modifica del piano di volo *(designazione del tipo di messaggio)*
CI	Cirrus Cirrus Cirrus Cirrus
CIDIN†	Common ICAO data interchange network Gemeinsames ICAO Datenaustausch-Fernmeldenetz Réseau OACI commun d'échange de données Rete OACI comune di scambio di dati
CIV	Civil Zivil Civil Civile
CL	Centre line Mittellinie Axial *ou* ligne axiale Asse *o* linea centrale
CLD	Cloud Wolke Nuage Nube
CLR	Clear *or* cleared to *or* clearance Freigegeben *oder* freigegeben zu, nach *oder* Freigabe Autorisé *ou* autorisé jusqu'à *ou* autorisation Autorizzato *o* autorizzato fino a *o* autorizzazione

CLSD	Close *or* closed *or* closing Geschlossen schliessen *oder* schliesst Fermez *ou* fermé *ou* ferme Chiuso
CM [cm]	Centimetre Zentimeter Centimètre Centimetro
CMB	Climb to *or* climbing to Steigen auf *oder* steigen bis Montez jusqu'à *ou* en montée jusqu'à Satite fino a *o* salita fino a
CNL	Cancel *or* cancelled Aufheben *oder* aufgehoben Annuler *ou* annulé Annullare *o* annullato
CNL	Flight plan cancellation *(message type designator)* Flugplan-Aufhebung *(Kennung der Meldung)* Annulation de plan de vol *(désignateur de type de message)* Annullamento del piano di volo *(designazione del tipo di messaggio)*
COM	Communications Fernmeldewesen, (Fernmelde-) Verbindung (en) Télécommunications Telecomunicazioni
CONC	Concrete Beton Béton Calcestruzzo
COND	Condition Zustand, Beschaffenheit Condition Condizione
CONT	Continue(s) *or* continued Fortsetzen *oder* beibehalten Continuez *ou* maintenu Continuare *o* mantenuto
COORD	Co-ordinates Koordinaten Coordonnées Coordinate
COR	Correct *or* corrected *or* correction Richtig *oder* berichtigt *oder* Berichtigung Correct *ou* corrigé *ou* correction Esatto *o* corretto *o* correzione
COTSENA*	(= KOSIF) (= KOSIF) Bureau de coordination pour les tirs et la sécurité de la navigation aérienne (= COTSINA)
COTSINA*	(= KOSIF) (= KOSIF) (= COTSENA) Ufficio di coordinazione per il tiro e la sicurezza della navigazione aerea

COV	Cover *or* covered *or* covering Decke *oder* bedeckt *oder* bedeckend Couvrir *ou* couvert *ou* couvrant Coprire *o* coperto *o* che copre
CPL	Current flight plan *(message type designator)* Geltende Flugplanmeldung *(Meldungsbezeichnung)* Plan de vol en vigueur *(désignateur de type demessage)* Messaggio di piano di volo in vigore *(definizione messaggio)*
CRZ	Cruise Reiseflug Croisière Crociera
CS	Cirrostratus *or* call sign Cirrostratus *oder* Rufzeichen Cirrostratus *ou* indicatif d'appel Cirrostratus *o* indicativo di chiamata
CTA	Control area Kontrollbezirk Région de contrôle Regione di controllo
CTC	Contact Kontaktieren Sie Contactez Collegatevi
CTL	Control Überwachung, Kontrolle Contrôle Controllo
CTN	Caution Vorsicht, Warnung Prudence Prudenza
CTR	Control zone Kontrollzone Zone de contrôle Zona di controllo
CU	Cumulus Cumulus Cumulus Cumulus
CUST	Customs Zoll Douane Dogana
CWY	Clearway Freifläche Prolongement dégagé Prolungamento libero da ostacoli

D

D...	Danger area *(followed by identification)* Gefahrengebiet *(mit seinem Kennzeichen versehen)* Zone dangereuse *(suivie de son identification)* Zona pericolosa *(seguita dalla identificazione)*

D	Downward *(tendency in RVR during previous 10 minutes)* Absinkend *(Tendenz der RVR während der letzten 10 Minuten)* Diminution *(tendance de la RVR au cours de la période de 10 minutes précédente)* In diminuzione *(tendenza della RVR nel corso dei 10 minuti precedenti)*
DABS	Daily Airspace Bulletin Switzerland Daily Airspace Bulletin Switzerland Daily Airspace Bulletin Switzerland Daily Airspace Bulletin Switzerland
DEC	December Dezember Décembre Dicembre
DEG [°]	Degrees Grad Degrés Gradi
DEL*	Delivery, issuance *(ATC clearance)* Erteilung, Ausgabe *(ATC-Freigabe)* Délivrance *(d'autorisation ATC)* Assegnazione *(autorizzazione ATC)*
DEP	Depart *or* departure Abfliegen *oder* Abflug Partez *ou* départ Partite *o* partenza
DEP	Departure *(message type designator)* Abflug *(Kennung der Meldung)* Départ *(désignateur de type de message)* Partenza *(designazione del tipo di messaggio)*
DES	Descend to *or* descending to Sinken auf *oder* sinkend auf Descendez *ou* je dévie *ou* écart *ou* je m'écarte Scendere a *o* scendendo a
DEST	Destination Bestimmungsort Destination Destinazione
DETRESFA†	Distress phase Notstufe Phase de détresse Fase di pericolo
DIST	Distance Entfernung, Distanz Distance Distanza
DLA	Delay *or* delayed Verspätung, verspätet *oder* Verspätungsmeldung Retard *ou* retardé Ritardo *o* ritardate
DME	Distance-measuring equipment Entfernungsmessgerät Dispositif de mesure de distance Apparecchio misuratore di distanza

DNG	Danger *or* dangerous Gefahr *oder* gefährlich Danger *ou* dangereux Pericolo *o* pericoloso
do/id.*	ditto/idem dito dito/idem idem
DP	Dew point temperature Taupunkttemperatur Température du point de rosée Temperatura del punto di rugiada
DR	Dead reckoning Koppelnavigation A l'estime Navigazione stimata
DR ...	Low drifting *(follow by DU = dust, SA = sand or SN = snow)* Niedriges Fegen *(gefolgt von DU = Staub, SA = Sand oder SN = Schnee)* Chasse ... basse *(accompagnant DU = poussière, SA = sable ou SN = neige)* Spazzare *(seguito da DU = polvere, SA = sabbia o SN = neve)*
DRG	During Während Durant Durante
DS	Duststorm Staubsturm Tempête de poussière Tempesta di polvere
DTHR	Displaced runway threshold Versetzte Pistenschwelle Seuil de piste décalé Soglia pista spostata
DU	Dust Staub Poussière Polvere
DUC	Dense upper cloud Dichte hohe Wolken Nuage denseen altitude Nube alta compatta
DUR	Duration Dauer Durée Durata
DVOR	Doppler VOR Doppler-VOR VOR Doppler VOR Doppler
DZ	Drizzle Nieseln, Sprühregen Bruine Pioviggine o bruma

E

E	East *or* eastern longitude Ost *oder* östliche Länge Est *ou* longitude est Est *o* longitudine Est
EAT	Expected approach time Voraussichtlicher Anflugszeitpunkt Heure d'approche prévue *ou* approche prévue Ora di avvicinamento prevista
EB	Eastbound Richtung Ost En direction de l'est Direzione Est
EET	Estimated elapsed time Voraussichtliche Flugdauer Durée estimée Durata stimata del volo
EFVS*	Enhanced flight vision system Flugsichtverbesserungssystem Système de vision en vol améliorée Sistema di visione migliorata per il volo
EFVS-A*	EFVS approach EFVS Anflug EFVS approche EFVS avvicinamento
EFVS-L*	EFVS landing EFVS Landung EFVS atterrissage EFVS atterraggio
ELBA†	Emergency location beacon-aircraft Notsender-Luftfahrzeug Radiophare de repérage d'urgence-aéronef Radiofaro d'emergenza di localizzazione d'aeromobile
ELEV	Elevation Ortshöhe über Meer Altitude, cote Altitudine
ELT	Emergency location transmitter Notsender Emetteur de secours Transmittente di soccorso
EM	Emission Ausstrahlung Emission Emissione
EMBD	Embedded in a layer *(to indicate cumulonimbus embedded in layers of other clouds)* Eingebettet in eine Schicht *(um anzugeben, dass CB in andere Wolkenschichten eingebettet sind)* Noyé dans une couche *(pour signaler les cumulonimbus noyés dans des couches d'autres nuages)* Affogati in uno strato *(per indicare cumulonembi affogati in strati di altre nubi)*

EMERG	Emergency Dringlichkeit, Notlage Urgence Urgenza, emergenza
En*	English Englisch Anglais Inglese
ENE	East-north-east Ostnordost Est-nord-est Est-Nord-Est
ENR	En route Auf Strecke, unterwegs En route In rotta
ENRC-FRA*	Enroute chart - Free Route Airspace Streckenkarte - Luftraum mit freier Streckenführu Carte de croisière - Espace aérien en cheminement libre Carta di crociera - Spazio aereo a rotta libera
ENRC	Enroute chart Streckenkarte Carte de croisière Carta di crociera
EOBT	Estimated off-block time Voraussichtliche off-block-Zeit (Abblockzeit) Heure estimée de départ de l'aire *(du poste)* de stationnement Ora prevista di partenza
EQPT	Equipment Ausrüstung Equipement Equipaggiamento
ESE	East-south-east Ostsüdost Est-sud-est Est-Sud-Est
EST	Estimate *or* estimated *or* estimate *(message type designator)* Schätzen *oder* geschätzt *oder* Schätzung *(Kennung der Meldung)* Estimer *ou* estimé *ou* estimation *(désignateur de type de message)* Prevedere *o* previsto *o* previsione *(designazione del tipo di messaggio)*
ETA	Estimated time of arrival *or* estimating arrival Voraussichtliche Ankunftszeit Heure d'arrivée prévue *ou* arrivée prévue Ora prevista di arrivo *o* arrivo previsto
ETD	Estimated time of departure *or* estimating departure Voraussichtliche Abflugzeit *oder* voraussichtliche Startzeit Heure de départ prévue *ou* départ prévu Ora prevista di partenza *o* partenza prevista
ETE*	Summer *(summer time period)* Sommer *(Sommerzeit-Periode)* Eté *(période de l'heure d'été)* Estate *(periodo dell'ora estiva)*

ETO	Estimated time over significant point Voraussichtliche Überflugzeit Heure estimée de passage au point significatif Ora prevista di sorvola del punto significativo
EXC	Except Ausgenommen, nur Excepté Ad eccezione di, eccetto
EXER	Exercise(s) *or* exercising *or* to exercise Übung(en) *oder* übend *oder* üben Exercice(s) *ou* exerçant *ou* exercer Esercizio *o* esercitante *o* esercitare
EXP	Expect *or* expected *or* expecting Erwarten, erwartet *oder* erwartend Attendez-vous à *ou* attendu *ou* s'attendant Attendere, atteso *o* in attesa

F

F	Fixed Fest Fixe Fisso
FAC	Facilities Einrichtungen Installations et services Assistenze
FAL	Facilitation of international air transport Erleichterungen im internationalen Luftverkehr Facilitation du transport aérien international Facilitazione del trasporto aereo internazionale
FAP	Final approach point Endanflug-Punkt Point d'approche finale Punto d'avvicinamento finale
FATO	Final approach and take-off area Endanflug- und Startbereich Aire d'approche et de décollage Area d'avvicinamento finale e di decollo
FAX*	Facsimile transmission Übermittlung mit Telefax Transmission en fac-simile Trasmissione via Telefax
FCST	Forecast Wettervorhersage, Prognose Prévision, prévu Previsione
FCT	Friction coefficient Reibungskoeffizient Coefficient de frottement Coefficiente d'attrito

FEB	February Februar Février Febbraio
FEW	Few Wenig, spärlich Rares Poco, scarso
FG	Fog Nebel Brouillard Nebbia
FIC	Flight information centre Fluginformationszentrale Centre d'information de vol Centro d'informazione di volo
FIR	Flight information region Fluginformationsgebiet Région d'information de vol Regione d'informazione di volo
FIS	Flight information service Fluginformationsdienst Service d'information de vol Servizio d'informazione di volo
FISA	Automated flight information service Automatischer Fluginformationsdienst Service automatique d'information de vol Servizio automatico d'informazione di volo
FIZ*	Flight Information Zone Fluginformationszone Zone d'information de vol Zona d'informazione di volo
FL	Flight level Flugfläche Niveau de vol Livello di volo
FLG	Flashing Blitzend, blinkend A éclats Lampeggiante, lampeggiamento
FLT	Flight Flug Vol Volo
FLW	Follow(s) *or* following Folgt, folgen, folgend Suit *ou* suivant Seguire *o* segue *o* seguente
FM ...	From *(followed by time weather change is forecast to begin)* Von *(gefolgt von der Zeit, ab wann der Beginn des Wetterwechsels vorhergesagt ist)* A partir de *(suivi de l'heure à laquelle il est prévu qu'un changement des conditions météorologiques commencera)* A partire da *(seguito dall'ora in cui è previsto che inizierà un mutamento delle condizioni meteorologiche)*

FMU	Flow management unit Verkehrsflussregelungsstelle Unité de gestion des courants de circulation Unità di gestiione del flusso del traffico
FOCA*	Federal Office of Civil Aviation *(BAZL, OFAC, UFAC)* Bundesamt für Zivilluftfahrt (BAZL, OFAC, UFAC) Office fédéral de l'aviation civile *(BAZL, OFAC, UFAC)* Ufficio federale dell'aviazione civile (BAZL, OFAC, UFAC)
FPL	Filed flight plan *(message type designator)* Aufgegebener Flugplan *(Bezeichnung der Meldungsart)* Plan de vol déposé *(désignateur de type de message)* Piano di volo trasmesso *(designazione del tipo di messaggio)*
FPM	Feet per minute [ft/min] Fuss je Minute [ft/min] Pieds par minute [ft/min] Piedi al minuto [ft/min]
Fr*	French Französisch Français Francese
FREQ	Frequency Frequenz Fréquence Frequenza
FRI	Friday Freitag Vendredi Venerdì
FRNG	Firing Schiessen Tir Tiro
FRONT†	Front *(relating to weather)* Wetterfront Front *(météorologique)* Fronte *(riferito a condizioni meteorologiche)*
FT	Feet [ft] *(dimensional unit)* Fuss [ft] *(Messeinheit)* Pieds [ft] *(unité de mesure)* Piedi [ft] *(Unità di misura)*
FTP	Fictitious threshold point Fiktiver Schwellenpunkt Point du seuil fictif Punto di soglia fittizio
FU	Smoke Rauch Fumée Fumo
FZ	Freezing Gefrierend Se congelant Congelemento

FZDZ	Freezing drizzle Gefrierendes Nieseln Bruine se congelant Pioviggine che gela
FZFG	Freezing fog Gefrierender Nebel Brouillard givrant Nebbia che gela
FZRA	Freezing rain Gefrierender Regen Pluie se congelant Pioggia che gela

G

G	Green Grün Vert Verde
G/A	Ground-to-air Boden /Bord Dans le sens sol-air Terra /aria
GAC*	General Aviation Centre (CAG) Leichtfliegerei-Zentrum (CAG) Centre d'aviation générale (CAG) Centro d'aviazione generale (CAG)
GAFOR*	General aviation forecast Flugwettervorhersage für die allgemeine Luftfahrt Prévision du temps pour l'aviation générale Previsione del tempo per l'aviazione generale
Ge*	German Deutsch Allemand Tedesco
GEN	General Allgemeines Général Generale
GEO	Geographic *or* true Geographisch *oder* rechtweisend Géographique *ou* vrai Geografico *o* vero
GLD	Glider Segelflugzeug Planeur Aliante
GND	Ground Grund Sol Suolo

GNSS	Global navigation satellite system Weltumfassendes Satellitennavigationssystem Système mondial de satellites de navigation Sistema universale di navigazione via satellite
GP	Glide path Gleitweg Alignement de descente Sentiero di discesa
GR	Hail Hagel Grêle Grandine
GRASS	Grass landing area Graslandefläche Aire d'atterrissage gazonnée Area d'atterraggio erbosa
GS	Ground speed Geschwindigkeit über Grund Vitesse au sol Velocità rispetto al suolo
GS	Small hail *and/or* snow pellets Reifgraupel Neige roulée Grandine fine *o/e* neve tonda

H

H 24	Continuous day and night service Ununterbrochener Tag- und Nachtbetrieb Service permanent de jour et de nuit Servizio permanente notturno e diurno
HAPI	Helicopter approach path indicator Anflugwinkelbefeuerung für Helikopter Indicateur de trajectoire d'approche pour hélicoptère Indicatore di traiettoria d'avvicinamento per elicotteri
HBN	Hazard beacon Gefahrenfeuer Phare de danger Faro di pericolo
HDG	Heading Steuerkurs Cap Prua
HEL	Helicopter Hubschrauber, Helikopter Hélicoptère Elicottero
HEMS*	Helicopter Emergency Medical Service Medizinischer Helikopter - Notfalldienst Service médical d'urgence héliporté Servizio medico di emergenza con elicotteri

HF	High frequency (3000 to 30’000 kHz) Dekameterwellen, Kurzwellen (3000-30’000 kHz) Hautes fréquences (3000 à 30’000 kHz) Alta frequenza (3000-30’000 kHz)
HGT	Height *or* height above Höhe *oder* Höhe über Hauteur *ou* hauteur au-dessus de Altezza *o* altezza al disopra di
HIV*	Winter *(standard time period CET)* Winter *(Standard-Zeitperiode MEZ)* Hiver *(période de l’heure standard HEC)* Inverno *(periodo dell’ora standard OEC)*
HJ	Sunrise to sunset Von Sonnenaufgang bis Sonnenuntergang Du lever au coucher du soleil Dal sorgere al tramontare del sole
HN	Sunset to sunrise Von Sonnenuntergang bis Sonnenaufgang Du coucher au lever du soleil Dal tramontare al sorgere del sole
HO	Service available to meet operational requirements Den Betriebserfordernissen entsprechender Dienst Service disponible selon les besoins de l’exploitation Servizio disponibile secondo le necessità dell’esercizio
HOL	Holiday Feiertag Jour férié Giorno festivo
HPA	Hectopascal [hPa] Hektopascal [hPa] Hectopascal [hPa] Ettopascal [hPa]
HR	Hours [h] Stunden [h] Heures [h] Ore [h]
HRH*	Day and night limit hours Tag- und Nachtgrenzen Heures limites du jour et de la nuit Limiti per il giorno e la notte
HRP	Heliport reference point Helikopterlandeplatz Bezugspunkt Point de référence d’héliport Punto di riferimento di eliporto
HS	Service available during hours of scheduled operations Während des planmässigen Flugbetriebes verfügbarer Dienst Service disponible aux heures des vols réguliers Servizio disponibile nelle ore di traffico regolare
HX	No specific working hours Keine bestimmten Betriebszeiten Pas d’heures précises de fonctionnement Orario di servizio non specificato

HZ	Haze Staubtrübung Brume sèche Polvere di sabbia
HZ	Hertz [Hz] Hertz [Hz] Hertz [Hz] Hertz [Hz]

I

IAS	Indicated airspeed Angezeigte Fluggeschwindigkeit Vitesse indiquée Velocità indicata
IBN	Identification beacon Kennfeuer Phare d'identification Faro di identificazione
IC	Ice crystals *(very small ice crystals in suspension, also known as diamond dust)* Eisprismen *(sehr kleine Eisprismen in Auflösung, auch bekannt als Diamantendunst)* Cristaux de glace *(très petits cristaux de glace en suspension, également connus sous le nom de poudrin de glace)* Cristalli di giaccio *(piccolissimi cristalli di giaccio in sospensione, anche cononscuiti come polvere di diamante)*
ICAO*	International Civil Aviation Organization (ICAO) Internationale Zivilluftfahrtorganisation (OACI) Organisation de l'aviation civile internationale (OACI) Organizzazione internazionale dell'aviazione civile (OACI)
ID	Identifier *or* identify Kennung *oder* Erkennen Identification *ou* identifiez Identificare *o* identificate
IDENT†	Identification Kennung, Identifizierung Identification Identificazione
IFR	Instrument flight rules Instrumentenflugregeln Règles de vol aux instruments Regole del volo strumentale
IMC	Instrument meteorological conditions Instrumentenwetterbedingungen Conditions météorologiques de vol aux instruments Condizioni meteorologiche di volo strumentale
INBD	Inbound Ankommend *oder* Einflug Rapprochement *ou* à l'arrivée Avvicinamento *o* in arrivo
INCERFA†	Uncertainty phase Ungewissheitsstufe Phase d'incertitude Fase d'incertezza

INFO†	Information Information, Auskunft Information Informazione
INOP	Inoperative Ausser Betrieb, stillgelegt, ausgefallen Hors de fonctionnement Fuori uso, inattivo
INT	Intersection Kreuzung Intersection Intersezione
INTL	International International International Internazionale
IR	Ice on runway Eis auf der Piste Glace sur la piste Ghiaccio sulla pista
ISA	International standard atmosphere Internationale Normatmosphäre Atmosphère type internationale Atmosfera tipo internazionale
It*	Italian Italienisch Italien Italiano

J

JAN	January Januar Janvier Gennaio
JTST	Jet stream Strahlstrom Courant-jet Corrente a getto
JUL	July Juli Juillet Luglio
JUN	June Juni Juin Giugno

K

KG	Kilograms [kg] Kilogramm [kg] Kilogrammes [kg] Chilogrammi [kg]

KHZ	Kilohertz [kHz] Kilohertz [kHz] Kilohertz [kHz] Chilohertz [kHz]
KM	Kilometres [km] Kilometer [km] Kilomètres [km] Chilometri [km]
KMH	Kilometres per hour [km/h] Kilometer pro Stunde [km/h] Kilomètres par heure [km/h] Chilometro all'ora [km/h]
KOSIF*	Coordination office for firings and safety of air navigation Koordinationsstelle für Schiessen und Flugsicherung Service de coordination pur le tir et la sécurité aérienne (COTSENA) Servizio di coordinamento per il tiro e la sicurezza aerea (COTSINA)
KPA	Kilopascal [kPa] Kilopascal [kPa] Kilopascal [kPa] Chilopascal [kPa]
KT	Knots [kt] Knoten [kt] Noeuds [kt] Nodi [kt]

L

L	Left *(runway identification)* Links *(Pistenbezeichnung)* Gauche *(identification de piste)* Sinistra *(designazione di pista)*
L	Litre Liter Litres Litro
L	Locator (LO) (Platz) Anflugfunkfeuer (LO) Radiobalise (LO) Radiofaro di localizzazione (LO)
LAT [° ‘ “]	Latitude Geographische Breite Latitude Latitudine
LCA	Locally *or* local *or* location *or* located Örtlich Local *ou* localement *ou* emplacement *ou* situé Locale *o* localmente
LDA	Landing distance available Verfügbare Landestrecke Distance utilisable à l'atterrissage Distanza disponibile per l'atterraggio

LDAH	Landing distance available, helicopter Verfügbare Landestrecke, Helikopter Distance utilisable à l'atterrissage, hélicoptère Distanza disponibile per l'atterraggio, elicotteri
LDG	Landing Landung Atterrissage Atterraggio
LDI	Landing direction indicator Landerichtungsanzeiger Indicateur de direction d'atterrissage Indicatore della direzione di atterraggio
LED*	Light-emitting diode Lichtemittierende Diode Diode électroluminescente Diodo a emissione di luce
LEN	Length Länge Longueur Lunghezza
LF	Low frequency (30 to 300 kHz) Kilometerwellen, Langwellen (30-300 kHz) Basses fréquences (30 à 300 kHz) Bassa frequenza (30-300 kHz)
LGT	Light *or* lighting Lichter, Feuer, Befeuerung Feux, balisage lumineux *ou* éclairage Luci, illuminazione, segnaletica luminosa
LGTD	Lighted Befeuert Avec balisage lumineux, éclairé Illuminato
LIH	Light intensity high Hochleistungsbefeuerung Haute intensité lumineuse Intensità luminosa alta
LIL	Light intensity low Niederleistungsbefeuerung Faible intensité lumineuse Intensità luminosa bassa
LIM	Light intensity medium Mittlere Leistungsbefeuerung Feu à intensité moyenne Intensità luminosa media
LM	Locator, middle Mittleres Platzfunkfeuer Radiobalise intermédiaire Radiofaro localizzatore intermedio
LMT	Local mean time Mittlere Ortszeit Temps moyen local Tempo medio locale

LO	Locator, outer Äusseres Platzfunkfeuer Radiobalise extérieure Radiofaro di localizzazione esterno
LOC	Localizer Localizer Localizer Localizer
LONG [° ‘ ‘‘]	Longitude Geographische Länge Longitude Longitudine
LT*	Local time Ortszeit Heure local Ora locale
LTD	Limited Begrenzt, beschränkt Limité Limitato
LTP	Landing threshold point Landeschwellenpunkt Point du seuil d’atterrissage Punto di soglia di atterraggio
LVL	Level Flugfläche Niveau Livello

M

M	Metres [m] Meter [m] Mètres [m] Metri [m]
MAG	Magnetic Missweisend, magnetisch Magnétique Magnetico
MAINT	Maintenance Unterhalt Entretien Manutenzione
MAP	Aeronautical charts and maps Luftfahrtkarten Cartes aéronautiques Carte e mappe aeronautiche
MAR	March März Mars Marzo

MAX	Maximum Höchstwert, höchst- Maximum Massimo
MAY	May Mai Mai Maggio
MEA	Minimum en-route altitude Mindestreiseflughöhe über Meer Altitude minimale de croisière Altitudine minima di crociera
MEHT	Minimum eye height over threshold *(for VASIS)* Mindestaugenhöhe über der Schwelle *(für VASIS)* Altitude minimale de l'oeil du pilote au-dessus du seuil *(dans le cas des VASIS)* Altezza minima all'occhio del pilota al di sopra della soglia *(per VASIS)*
MET†	Meteorological *or* meteorology Meteorologie *oder* Wetterkunde Météorologie *ou* météorologique Meteorologia *o* meteorologico
METAR†	Aviation routine weather report *(in aeronautical meteorological code)* Flugwettermeldung *(in Flugwettercode)* Message d'observation météorologique régulière pour l'aviation *(en code météorologique aéronautique)* Messaggio di osservazione meteorologica regolare per l'aviazione *(in codice meteorologico aeronautico)*
MF	Medium frequency (300 to 3'000 kHz) Mittelwellen (300-3'000 kHz) Moyennes fréquences (300 à 3'000 kHz) Media frequenza (300-3'000 kHz)
MHZ	Megahertz [MHz] Megahertz [MHz] Megahertz [MHz] Megahertz [MHz]
MIL	Military Militärisch, Militär Militaire Militare
MIN	Minutes [min] Minuten [min] Minutes [min] Minuti [min]
MKR	Marker radio beacon Markierungsfunkfeuer Radioborne Radiosegnalatore
MLAT*	Multilateration Multilateration Multilatération Multilaterazione
MNM	Minimum Mindestwert, mindest Minimum Minimo

MNT	Monitor *or* monitoring *or* monitored Überwachungsgerät *oder* überwachen *oder* überwacht Dispositif de contrôle *ou* contrôle *ou* contrôlé Monitore *o* monitorando *o* monitorato
MOGAS	Motor gasoline Autobenzin Essence automobile Carburante auto
MON	Monday Montag Lundi Lunedì
MOTNE	Meteorological operational telecommunications network Europe Europäisches Flugwetter-Fernmeldenetz Réseau européen de télécommunications météorologiques d'exploitation Rete telecomunicazioni meteorologiche operative in Europa
MPS	Metres per second [m/s] Meter pro Sekunde [m/s] Mètres par seconde [m/s] Metri al secondo [m/s]
MPW*	Maximum permissible weight Höchstzulässiges Gewicht Masse admissible maximale Massa ammissibile massima
MS	Minus Minus Moins Meno
MSL	Mean sea level Mittlere Meereshöhe Niveau moyen de la mer Livello medio del mare
MTOM*	Maximum take-off mass Höchstabflugmasse Masse maximale au décollage Massa massima al decollo

N

N	North *or* northern latitude Nord *oder* nördliche Breite Nord *ou* latitude nord Nord *o* latitudine Nord
NAV	Navigation Navigation Navigation Navigazione
NDB	Non-directional radio beacon Ungerichtetes Funkfeuer Radiophare non directionnel Radiofaro adirezionale

NE	North-east Nordost Nord-est Nord-Est
NEB	North-eastbound Richtung Nordost En direction du nord-est Direzione Nord-Est
NGT	Night Nacht Nuit Notte
NIL†	None *or* I have nothing to send to you Keine, nichts Néant Niente, nessuno
NM [M]	Nautical miles Seemeilen, nautische Meilen Milles marins Miglia nautice
NML	Normal Normal Normal Normale
NNE	North-north-east Nordnordost Nord-nord-est Nord-Nord-Est
NNW	North-north-west Nordnordwest Nord-nord-ouest Nord-Nord-Ovest
NOF	International NOTAM office Internationales NOTAM-Büro Bureau NOTAM international Ufficio NOTAM internazionale
NOSIG†	No significant change *(used in trend-type landing forecasts)* Keine bedeutsame Veränderung *(für die Landewettervorhersagen Typ „Tendenz“)* Sans changement significatif *(utilisé dans les prévisions d’atterrissage de type tendance)* Senza variazioni importanti *(per le previsioni di atterraggio del tipo „tendenza“)*
NOTAM†	A notice containing information concerning the establishment, condition *or* change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations Eine Nachricht über Errichtung, Zustand oder Veränderung von Luftfahrtanlagen aller Art, sowie über Dienste, Verfahren oder Gefahren, deren rechtzeitige Kenntnis für das Luftfahrt- und Flugsicherungspersonal wichtig ist Avis donnant sur l’établissement, l’état ou la modification d’une installation, d’un service, d’une procédure aéronautique ou d’un danger pour la navigation aérienne, des renseignements dont la communication, à temps, au personnel chargé des opérations aériennes est essentielle Un NOTAM è un avviso contenente informazioni concernenti l’entrata in attività, il funzionamento o qualsiasi variazione relativa a installazioni aeronautiche, servizi, procedure o pericoli, la cui rapida distribuzione al personale interessato alle operazioni di volo è essenziale per la sicura ed efficace condotta del volo

NOV	November November Novembre Novembre
NR	Number Nummer, Zahl Numéro, nombre Numero
NS	Nimbostratus Nimbostratus Nimbostratus Nimbostratus
NSC	Nil significant cloud Keine bedeutsame Wolke Aucun nuage significatif Nessuna nuvola significativa
NSW	Nil significant weather Keine bedeutsame Wettererscheinung(en) Pas de temps significatif Nessun tempo significativo
NVFR*	VFR by night VFR bei Nacht VFR de nuit VFR notturno
NW	North-west Nordwest Nord-ouest Nord-Ovest
NWB	North-westbound Richtung Nordwest En direction du nord-ouest Direzione Nord-Ovest

O

OACI*	International Civil Aviation Organization (ICAO) Internationale Zivilluftfahrtorganisation (OACI) Organisation de l'aviation civile internationale (OACI) Organizzazione internazionale dell'aviazione civile (OACI)
OBS	Observe *or* observed *or* observation Beobachten *oder* beobachtet *oder* Beobachtung Observation *ou* observer *ou* observé Osservare *o* osservato *o* osservazione
OBST	Obstacle Hindernis Obstacle Ostacolo
OCT	October Oktober Octobre Ottobre

OFAC*	Federal Office of Civil Aviation *(BAZL, FOCA, UFAC)* Bundesamt für Zivilluftfahrt *(BAZL, FOCA, UFAC)* Office fédéral de l'aviation civile *(BAZL, FOCA, UFAC)* Ufficio federale dell'aviazione civile *(BAZL, FOCA, UFAC)*
OHD	Overhead Oberhalb, über A la verticale (de) Sulla verticale
OM	Outer marker Aussenmarker *(Voreinflugzeichen)* Radioborne extérieure Radiosegnalatore esterno
ONAV*	Air Navigation Obstacle Chart including Glider Flying Information (LFHK) Luftfahrthinderniskarte (LFHK) Carte des obstacles à la navigation aérienne et vol à voile (LFHK) Carta degli ostacoli alla navigazione aerea (LFHK)
OPN	Open *or* opening *or* opened Offen *oder* Öffnung *oder* geöffnet Ouvert *ou* ouverture Aperto *o* apertura
OPR	Operator *or* operate *or* operative *or* operating *or* operational Flugbetriebsunternehmer, betreiben, in Betrieb Exploitant *ou* exploiter *ou* en fonctionnement *ou* en vigueur *ou* en exploitation Esercente *o* gestire *o* in servizio
OPS†	Operations Betrieb Exploitation *ou* vols Esercizio *o* voli
O/R	On request Auf Anforderung Sur demande A richiesta
OUBD	Outbound Wegfliegend *oder* abfliegend En éloignement *ou* au départ In allontanamento *o* in partenza
OVC	Overcast Bedeckt Couvert Coperto

P

P ...	Prohibited area *(followed by identification)* Sperrgebiet *(mit seinem Kennzeichen versehen)* Zone interdite *(suivie de son identification)* Zona vietata *(seguita dalla identificazione)*
PANS	Procedures for air navigation services Verfahren (Vorschriften für Flugsicherungsdienste) Procédures pour les services de navigation aérienne Procedure per i servizi della navigazione aerea

PAPI†	Precision approach path indicator Präzisions-Gleitwinkelbefeuerung Indicateur de trajectoire d'approche de précision Indicatore ottico di pendenza per avvicinamenti di precisione
PARL	Parallel Parallele, parallel Parallèle Parallelo
PAX	Passengers Fluggäste Passagers Passeggeri
PCR	Pavement classification rating Tragfähigkeitsklassifikations-Rating Cote de classification de chaussée Valutazione della classificazione della pavimentazione
PER	Performance Leistungen Performances Prestazioni
PERM	Permanent Dauernd Permanent Permanente
PJE	Parachute jumping exercise Fallschirmabsprungübungen Exercices de saut en parachute Attività paracadutistica
PLN	Flight plan Flugplan Plan de vol Piano di volo
PN	Prior notice required Vorherige Anmeldung verlangt Préavis exigé Necessita un preavviso
POB	Persons on board Personen an Bord Personnes à bord Persone a bordo
PPR	Prior permission required Vorherige Genehmigung erforderlich Autorisation préalable nécessaire Necessita autorizzazione preventiva
PRKG	Parking Abstellen Stationnement Parcheggio
PROB†	Probability Wahrscheinlichkeit Probabilité Probabilità

PROC	Procedure Verfahren Procédure Procedura
PROV	Provisional Vorläufig Provisoire *ou* provisoirement Provvisorio
PS	Plus Plus Plus Più
PSN	Position Standort Position Posizione
PWR	Power Leistung, Kraft Puissance Potenza

Q

QDM	Magnetic heading *(zero wind)* Missweisender Steuerkurs *(ohne Windeinfluss)* Cap magnétique *(vent nul)* Rotta magnetica *(in assenza di vento)*
QDR	Magnetic bearing Missweisende Peilung Relèvement magnétique Rilevamento magnetico
QFE	Atmospheric pressure at aerodrome elevation *(or at runway threshold)* Atmosphärischer Luftdruck auf Flugplatzhöhe *(oder Pistenschwellenhöhe)* Pression atmosphérique à l'altitude de l'aérodrome *(ou au seuil de piste)* Pressione atmosferica all'altitudine dell'aerodrome *(o alla soglia pista)*
QFU	Magnetic orientation of runway Missweisende Richtung der Piste Direction magnétique de la piste Direzione magnetica della pista
QNH	Altimeter sub-scale setting to obtain elevation when on the ground Höhenmessereinstellung, bei der der Höhenmesser am Boden die Flugplatzhöhe anzeigt Calage altimétrique requis pour lire, une fois au sol, l'altitude de l'aérodrome Regolaggio altimetrico per avere indicata l'altitudine dell'aerodromo quando si è a terra
QTE	True bearing Rechtweisende Peilung Relèvement vrai Rilevamento vero

R

R	Right *(Runway identification)* Rechts *(Pistenbezeichnung)* Droit *(identification de piste)* Destra *(designazione di pista)*

R ...	Restricted area *(followed by identification)* Flugbeschränkungsgebiet *(mit seinem Kennzeichen versehen)* Zone réglementée *(suivie de son identification)* Zona regolamentata *(seguita dall'identificazione)*
R ...*	VOR Radial *(followed by number of degrees)* VOR-Leitstrahl *(mit seinem Kennzeichen versehen)* Radiale VOR *(suivie du nombre de degrés)* Radiale VOR *(seguita dalla indicazione del numero dei gradi)*
RA	Rain Regen Pluie Pioggia
RAC	Rules of the air and air traffic services Verkehrsregeln für Luftfahrzeuge und Flugverkehrsdienste Règles de l'air et services de la circulation aérienne Norme e servizi della circolazione aerea
RCC	Rescue coordination centre Such- und Rettungszentrale Centre de coordination de sauvetage Centro coordinamento ricerca e salvataggio
RCL	Runway centre line Pistenmittellinie Axe de piste Asse pista
RCLL	Runway centre line light(s) Pistenmittellinienbefeuerung Feu(x) d'axe de piste Luce(i) asse pista
RDL	Radial Radiallinie, Leitstrahl Radiale Radiale
RDO	Radio Funk Radio Radio
RE ...	Recent *(used to qualify weather phenomena, e.g. RERA = recent rain)* Vor kurzem *(anzuwenden, um Wettererscheinungen näher zu bestimmen, z.B. RERA = vor kurzem Regen)* Récent (récente) *(employé pour qualifier un phénomène météorologique récent, p. ex. RERA = pluie récente)* Recente *(utilizzato per qualificare un fenomeno meteorologico recente, p.es. RERA = pioggia recente)*
REC	Receive *or* receiver Empfänger *oder* Empfang *oder* empfangen Récepteur *ou* réception Ricevere *o* ricevitore
REDL	Runway edge light(s) Pistenrandbefeuerung Feu(x) de bord de piste Luce(i) di bordo pista
REF	Reference to... *or* refer to... Bezugnahme auf... *oder* beziehen auf... Référence à... *ou* référez-vous à... Riferimento a... *o* riferito a... *o* riferire a...

REG	Registration Eintragung Immatriculation Immatricolazione
RENL	Runway end light(s) Pistenendbefeuerung Feu(x) d'extrémité de piste Luce(i) di fine pista
REP	Report *or* reporting *or* reporting point Meldung *oder* melden *oder* Meldepunkt Rendez compte *ou* compte rendu *ou* point de compte rendu Annuncio *o* annunciare *o* punto di riporto
REQ	Request *or* requested Ersuchen *oder* ersucht Demande *ou* demandé *ou* requis Richiesta *o* richiesto
RETIL	Rapid Exit Taxiway Indicator Lights Schnellabrollweg - Hinweisfeuer Feux indicateurs de voie de sortie rapide Rapid Exit Taxiway Indicator Lights
RFP*	Replacement *or* replaced flight plan Ersatz *oder* Ersatzflugplan Plan de vol de remplacement *ou* remplacé Piano di volo sostitutivo *o* sostituito
RGL	Runway Guard Lights Pisten - Warnleuchte Feux de protection de piste Runway Guard Lights
RMK	Remark Bemerkung Remarques Osservazione
RMZ	Radio Mandatory Zone Zone mit Funkkommunikationspflicht Zone à utilisation obligatoire de radio Zona con utilizzazione obbligatoria di un transponder
ROC	Rate of climb Steiggeschwindigkeit Vitesse ascensionnelle Velocità ascensionale
ROD	Rate of descent Sinkgeschwindigkeit Vitesse descentionnelle *ou* vitesse vertical de descente Rateo di discesa
ROFOR	Route forecast *(in aeronautical meteorological code)* Streckenwettervorhersage *(in Flugwettercode)* Prévision de route *(en code météorologique aéronautique)* Previsione di rotta *(in codice meteorologico aeronautico)*
RPI	Reference path identifier Referenzweg-Kennung Identificateur de trajectoire de référence Identificatore del percorso di riferimento

RPL	Repetitive flight plan Dauerflugplan Plan de vol répétitif Piano di volo ripetitivo
RPLC	Replace *or* replaced Ersetzen *oder* ersetzt Remplacer *ou* remplacé Sostituire o sostituisce
RTE	Route Strecke Itinéraire Rotta
RTF	Radiotelephony Sprechfunk, Funktelefonie Radiotéléphonie Radiotelefono
RTHL	Runway threshold light(s) Pistenschwellenbefeuerung Feu(x) de seuil de piste Luce(i) di soglia pista
RTIL	Runway threshold identification lights Pistenschwellenkennfeuer Feux d'identification de seuil de piste Luci d'identificazione della soglia di pista
RTODAH	Rejected take-off distance available, helicopter Verfügbare Startabbruchstrecke, Helikopter Longeur de décollage interrompu, hélicoptère Distanza disponibile per la sospensione del decollo, elicotteri
RTZL	Runway touchdown zone light(s) Pistenaufsetzzonenbefeuerung Feu(x) de zone de toucher des roues Luce(i) di zona di contatto della pista
RWY	Runway Piste Piste Pista

S

S	South *or* southern latitude Süd *oder* südliche Breite Sud *ou* latitude sud Sud *o* latitudine Sud
S1 - S5*	Ground service Bodendienste Services au sol Servizi a terra
SA CAT I*	Special authorisation category I Sondergenehmigung Kategorie I Autorisation spéciale catégorie I Autorizzazione speciale categoria I

SA CAT II*	Special authorisation category II Sondergenehmigung Kategorie II Autorisation spéciale catégorie II Autorizzazione speciale categoria II
SALS	Simple approach lighting system Einfache Anflugbefeuerung Dispositif lumineux d'approche raccourci Dispositivo luminoso semplice di avvicinamento
SAR	Search and rescue Such- und Rettungsdienst Recherches et sauvetage Ricerca e salvataggio
SAT	Saturday Samstag Samedi Sabato
SB	Southbound Richtung Süd En direction du sud Direzione Sud
SC	Stratocumulus Stratocumulus Stratocumulus Stratocumulus
SCT	Scattered Aufgelockert Épars Sparso
SE	South-east Südost Sud-est Sud-Est
SEB	South-eastbound Richtung Süd-Ost En direction du sud-est Direzione Sud-Est
SEC	Seconds [s] Sekunden [s] Secondes [s] Secondi [s]
SECT	Sector Sektor Secteur Settore
SEP	September September Septembre Settembre
SER	Service *or* servicing *or* served Dienst(e), bedient Service(s) *ou* entretien *ou* desservi Servizio(i) *o* manutenzioni *o* servito

SFC	Surface Oberfläche, Fläche, Decke, Boden Surface Superficie
SG	Snow grains Schneegriesel Neige en grains Nevischio
SFR*	Special flight route Sonderflugstrecke Route aérienne spéciale Rotta aerea speciale
SGL	Signal Signal Signal Segnale
SH ...	Showers *(followed by RA = rain, SN = snow, PE = ice pellets, GR = hail, GS = small hail and/or snow pellets or combinations thereof, e.g. SHRASN = showers of rain and snow)* Schauer *(gefolgt von RA = Regen, SN = Schnee, PE = Eiskörner, GR = Hagel, GS = Reifgraupel und/oder Schneekörner oder eine Kombination davon, z.B. SHRASN = Regenschauer und Schnee)* Averses *(suivi de RA = de pluie, SN = de neige, PE = de grésil, GR = de grêle ou GS = de neige roulée, ou d'une combinaison de ces abréviations, p. ex. SHRASN = averses de pluie et de neige)* Precipitazioni *(seguito da RA = pioggia, SN = neve, PE = gragnola, GR = grandine, GS = grandine fine o neve tonda o combinazione d'entrambe, p.es. SHRASN = precipitazioni di pioggia e di neve)*
SIGMET†	Information concerning en-route weather phenomena which may affect the safety of aircraft operations Information bezüglich Wettererscheinungen auf der Flugstrecke, die die Sicherheit des Flugbetriebs beeinträchtigen können Renseignements relatifs aux phénomènes météorologiques en route qui peuvent affecter la sécurité de l'exploitation aérienne Informazioni relative a fenomeni meteorologici in rotta che possono influenzare la sicurezza delle operazioni dell'aeromobile
SKC	Sky clear Wolkenlos Ciel clair Cielo sereno
SKED	Schedule *or* scheduled Flugplan *oder* planmässig Horaire *ou* heure fixe Orario *o* regolare
SMM*	Swiss Map Mobile Swiss Map Mobile Swiss Map Mobile Swiss Map Mobile
SMR	Surface movement radar Oberflächenbewegungsradar Radar de contôle de la circulation de surface Radar di controllo della circolazione di superficie
SN	Snow Schnee Neige Neve

SNOWTAM†	A special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format Eine besondere NOTAM-Serie, in einem speziellen Format, die Auskunft gibt über das Vorhandensein oder die Entfernung gefährlicher Zustände, verursacht durch Schnee, Eis, Matsch oder stehendes Wasser in Verbindung mit Schnee, Matsch und Eis auf den Bewegungsflächen NOTAM de série spéciale notifiant, sur un format déterminé, l'existence ou l'élimination de conditions dangereuses dues à de la neige, de la glace, de la neige fondante ou de l'eau stagnante provenant de neige, de neige fondante ou de glace sur l'aire de mouvement Serie speciale di NOTAM che informa per mezzo di uno specifico modello dell'esistenza o eliminazione dall'area di movimento di condizioni pericolose dovute a neve, ghiaccio, neve fangosa o acqua stagnante connesse con neve, neve fangosa e ghiaccio
SPECI†	Aviation selected special weather report *(in aeronautical meteorological code)* Spezialwettermeldung für den Flugwetterdienst *(in Flugwettercode)* Message d'observation spéciale sélectionné pour l'aviation *(en code météorologique aéronautique)* Messaggio di osservazione meteorologica speciale selezionato per l'aviazione *(in codice meteorologico aeronautico)*
SPECIAL†	Special meteorological report *(in abbreviated plain language)* Sonderwettermeldung *(in abgekürztem Klartext)* Message d'observation spéciale *(en langage clair)* Messaggio di osservazioni meteorologiche speciali *(in linguaggio chiaro abbreviato)*
SPOC	Single point of contact Einzige Anlaufstelle Point de contact unique Punto singolo di contatto
SQ	Squall Bö Grain Groppo
SR	Sunrise Sonnenaufgang Lever du soleil Sorgere del sole
SS	Sunset Sonnenuntergang Coucher du soleil Tramonto del sole
SSE	South-south-east Südsüdost Sud-sud-est Sud-Sud-Est
SSR	Secondary surveillance radar Rundsicht-Sekundärradar Radar secondaire de surveillance Radar di sorveglianza secondario
SSW	South-south-west Südsüdwest Sud-sud-ouest Sud-Sud-Ovest
ST	Stratus Stratus Stratus Stratus

STA	Straight in approach Geradeaus-Anflug Approche directe Avvicinamento diretto
STOL	Short take-off and landing Kurzstart und Kurzlandung Décollage et atterrissage courts Decollo e atterraggio corto
STS	Status Status Etat Stato
STWL	Stopway light(s) Stoppbahnbefeuerung Feu(x) de prolongement d'arrêt Luce(i) di zona di arresto
SUBJ	Subject to Abhängig von Soumis à Soggetto a
SUN	Sunday Sonntag Dimanche Domenica
SUP	Supplement *(AIP Supplement)* Ergänzung *(AIP Supplement)* Supplément *(Supplément AIP)* Supplemento *(supplemento AIP)*
SVC	Service message Dienstmeldung Message de service Messaggio di servizio
SVCBL	Serviceable Benützbar, einsatzbereit Utilisable Utilizzabile, in servizio
SVFR*	Special VFR Spezial-VFR VFR spécial VFR speciale
SVID*	Standard visual/instrument departure Standard Sicht-/Instrumentenabflug Départ normalisé à vue/aux instruments Partenza visuale/strumentale standard
SW	South-west Südwest Sud-ouest Sud-Ovest
SWB	South-westbound Richtung Südwest En direction du sud-ouest Direzione Sud-Ovest

SWY	Stopway Stoppbahn, Stoppfläche Prolongement d'arrêt Zona d'arresto

T

T	Temperature Temperatur Température Temperatura
...T	True (preceded by a bearing to indicate reference to True North) rechtweisend (mit vorangestelltem Kurs, ausgerichtet nach geografisch Nord) Vrai (précédé d'un gisement par rapport au nord vrai) Vero (preceduto da una direzione, per l'orientamento verso il nord geografico)
TA	Transition altitude Übergangshöhe über Meer Altitude de transition Altitudine di transizione
TACAN†	UHF tactical air navigation aid UHF Taktische Flugnavigationshilfe Tacan-système de navigation aérienne tactique Assistenza UHF per la navigazione aerea tattica
TAF†	Aerodrome forecast Flugplatzwettervorhersage Prévision d'aérodrome Previsione d'aerodromo
TAS	True airspeed Wahre Fluggeschwindigkeit Vitesse vraie Velocità vera
TAX	Taxiing *or* taxi Rollen *oder* rollend Circulant *ou* circulez au sol Circolante *o* circolazione al suolo
TCU	Towering cumulus Hochauftürmender Cumulus Cumulus bourgeonnant Cumuli castellati
TDZ	Touchdown zone Aufsetzzone Aire de toucher des roues Zona di contatto
TEL	Telephone Telefon Téléphone Telefono
TEMPO†	Temporary *or* temporarily Zeitweilig *oder* zeitweise *oder* befristet Temporaire *ou* temporairement Temporaneo *o* temporaneamente

TEND†	Trend forecast Vorhergesagte Tendenz Tendance prévue Tendenza prevista
TFC	Traffic Verkehr Trafic Traffico
THR	Threshold Schwelle Seuil Soglia
THU	Thursday Donnerstag Jeudi Giovedì
TIL†	Until Bis Jusqu'à Fino a
TKOF	Take-off Start Décollage Decollo
TL . . .	Till *(followed by time by which weather change is forecast to end)* Bis *(gefolgt durch die Zeit bei der die vorhergesagte Wetteränderung beendet ist)* jusqu'à *(suivi de l'heure à laquelle il est prévu qu'un changement des conditions météorologiques prendra fin)* Fino a *(seguito dall'ora alla quale è prevista la fine di un fenomeno meteorologico)*
TLOF	Touchdown and lift-off area Aufsetz- und Abhebegebiet Aire de prise de contact et d'envol Area di presa di contatto e d'involo
TMA	Terminal control area Nahkontrollbezirk Région de contrôle terminale Regione di controllo terminale
TMZ	Transponder Mandatory Zone Zone mit Transponderpflicht Zone à utilisation obligatoire de transponder Zona con utilisazione obbligatoria di un transponder
TODA	Take-off distance available Verfügbare Startstrecke Distance utilisable au décollage Distanza disponibile per il decollo
TODAH	Take-off distance available, helicopter Verfügbare Startstrecke, Helikopter Distance utilisable au décollage, hélicoptère Distanza disponibile per il decollo, elicotteri
TOP†	Cloud top Wolkenobergrenze Sommet des nuages Sommità delle nubi

TORA	Take-off run available Verfügbare Startlaufstrecke Longueur de roulement utilisable au décollage Corsa disponibile per il decollo
TRL	Transition level Übergangsflugfläche Niveau de transition Livello di transizione
TS	Thunderstorm *(in aerodrome reports and forecasts, TS used alone means thunder heard but no precipitation at the aerodrome)* Gewitter *(in Flugplatzwetterberichten und Wettervorhersagen, TS allein verwendet heisst, Blitzschlag aber ohne Niederschlag auf dem Flugplatz)* Orage *(dans les comptes rendus et prévisions d'aérodrome, TS employé seul signifie qu'un coup de tonnerre est entendu, mais sans précipitation à l'aérodrome)* Temporale *(nei rapproti e previsioni aeroportuali TS, usato da solo, significa che un temporale è stato udito ma senza precipitazioni sull'aerodromo)*
TS . . .	Thunderstorm *(followed by RA = rain, SN = snow, PE = ice pellets, GR = hail, GS = small hail and/or snow pellets or combinations thereof, e.g. TSRASN = thunderstorm with rain and snow)* Gewitter *(gefolgt von RA = Regen, SN = Schnee, PE = Eiskörner, GR = Hagel, GS = Reifgraupel und/oder Schneekörner oder eine Kombination davon, z.B. TSRASN = Gewitter mit Regen und Schnee)* Orage *(suivi de RA = avec pluie, SN = avec neige, PE = avec grésil, GR = avec grêle ou GS = avec neige roulée, ou d'une combinaison de ces abréviations, p. ex. TSRASN = orage avec pluie et neige)* Temporale *(seguito da RA = pioggia, SN = neve, PE = gragnola, GR = grandine, GS = grandine fine o neve tonda o combinazione d'entrambe, p.es. TSRASN = temporale con pioggia e neve)*
TUE	Tuesday Dienstag Mardi Martedì
TURB	Turbulence Turbulenz Turbulence Turbolenza
TVOR	Terminal VOR Flugplatz-UKW-Drehfunkfeuer VOR de région terminale VOR di regione terminale
TWIL*	Twilight Dämmerung Crépuscule Crepuscolo
TWR	Aerodrome control tower *or* aerodrome control Platzverkehrsleitstelle *oder* Platzverkehrsleitdienst, Kontrollturm Tour de contrôle d'aérodrome *ou* contrôle d'aérodrome Torre di controllo d'aerodromo *o* controllo d'aerodromo
TWY	Taxiway Rollweg Voie de circulation Via di circolazione
TX*	Telex Telex Télex Telex

TYP
Ty'pe of aircraft
Luftfahrzeugmuster
Type d'aéronef
Tipo di aeromobile

TZL*
(Simple) Touchdown zone lights
(Einfache) Touch-down-Zonenlichter
(Simple) feux de zone de toucher des roues
(Simplici) luci di zona di attterraggio

The purpose of simple touchdown zone lights is to provide pilots with enhanced situational awareness in all visibility conditions and to help enable pilots to decide whether to commence a go-around if the aircraft has not landed by a certain point on the runway.

Der Zweck einfacher Touch-down-Zonenlichter besteht darin, den Piloten ein besseres Situationsbewusstsein unter allen Sichtbedingungen zu bieten und den Piloten zu ermöglichen, zu entscheiden, ob sie mit dem Durch-Start beginnen sollen, wenn das Flugzeug nicht an einem bestimmten Punkt auf der Landebahn gelandet ist.

Le but des feux de zone de toucher des roues simples est de fournir aux pilotes une meilleure connaissance de la situation dans toutes les conditions de visibilité et d'aider les pilotes à décider de commencer ou non une remise des gaz si l'aéronef n'a pas atterri à un certain point de la piste.

Lo scopo delle semplici luci di zona di atterraggio è fornire ai piloti una maggiore consapevolezza della situazione in tutte le condizioni di visibilità e aiutare a consentire ai piloti di decidere se iniziare un giro se l'aeromobile non è atterrato da un certo punto sulla pista.

U

U2*
U3 etc. MET charts
U3 usw. Karten MET
U3 etc. Cartes MET
U3 ecc. Carte MET

UAC
Upper area control centre
Bezirkskontrollstelle für den oberen Luftraum
Centre de contrôle de région supérieure
Centro di controllo dello spazio aereo superiore

UFAC*
Federal Office of Civil Aviation *(BAZL, FOCA, OFAC)*
Bundesamt für Zivilluftfahrt *(BAZL, FOCA, OFAC)*
Office fédéral de l'aviation civile *(BAZL, FOCA, OFAC)*
Ufficio federale dell'aviazione civile *(BAZL, FOCA, OFAC)*

UFN
Until further notice
Bis auf weiteres
Jusqu'à nouvel avis
Fino a nuovo avviso

UHF
Ultra high frequency *(300 to 3'000 MHz)*
Dezimeterwellen *(300-3000 MHz)*
Ultra-hautes fréquences *(300 à 3'000 MHz)*
Frequenza ultra alta *(300-3000 MHz)*

UIR
Upper flight information region
Oberes Fluginformationsgebiet
Région supérieure d'information de vol
Regione superiore di informazione di volo

UNL
Unlimited
Unbegrenzt
Illimité
Illimitato

UNREL	Unreliable Unzuverlässig Peu sûr Non sicuro, incerto mal sicuro
U/S	Unserviceable Unbenützbar, ausser Betrieb Hors service Fuori servizio, non usabile
UTA	Upper control area Oberer Kontrollbezirk Région supérieure de contrôle Regione superiore di controllo
UTC	Coordinated universal time Koordinierte Weltzeit Temps universel coordonné Tempo universale coordinato

V

VAC	Visual approach chart Sichtanflugkarte Carte d'approche à vue Carta d'avvicinamento a vista
VAN	Runway control van Pistenwagen Véhicule de contrôle de piste Veicolo per controllo pista
VAR	Magnetic variation Missweisung Déclinaison magnétique Declinazione magnetica
VASIS†	Visual approach slope indicator system Gleitwinkelbefeuerung Indicateur visuel de pente d'approche Sistema ottico indicatore dell'angolo di avvicinamento
VC	Vicinity of the aerodrome *(followed by FG = fog, FC = funnel cloud, PO = dust/sand whirls, BLDU = blowing dust, BLSA = blowing sand or BLSN = blowing snow, e.g. VC FG = vicinity fog)* Umgebung des Flugplatzes *(gefolgt von FG = Nebel, FC = Trombe, PO = Staub/Sandwirbel, BLDU = Staubtreiben, BLSA = Sandtreiben oder BLSN = Schneetreiben, z.B. VC FG = Nebel in der Umgebung)* Au voisinage de l'aérodrome *(suivi de FG = brouillard, FC = trombe, PO = tourbillons de poussière/de sable, BLDU = chasse-poussière élevée, BLSA = chasse-sable élevée, ou BLSN = chasse-neige élevée, p.ex. VC FG = brouillard à proximité)* Nelle vicinanze dell'aerodromo *(seguito da FG = nebbia, FC = tromba, PO = tromba di polvere/di sabbia, BLDU = soffiaggio di polvere, BLSA = soffiaggio di sabbia o BLSN = soffiaggio di neve, p.es. VC FG = nebbia nelle vicinanze)*
VCY	Vicinity Umgebung Abords *ou* voisinage Vicinanza
VDF	Very high frequency direction-finding station Ultrakurzwellen-Peilstelle Station radiogoniométrique très haute fréquence Stazione radiogoniometrica ad altissima frequenza

VFR	Visual flight rules Sichtflugregeln Règles de vol à vue Regole di volo a vista
VHF	Very high frequency (30 to 300 MHz) Meterwellen, Ultrakurzwellen (30-300 MHz) Très hautes fréquences (30 à 300 MHz) Altissima frequenza (30-300 MHz)
VIS	Visibility Sicht Visibilité Visibilità
VMC	Visual meteorological conditions Sichtflugwetterbedingungen Conditions météorologiques de vol à vue Condizioni meteorologiche di volo a vista
VOBIS	Voice Broadcasting Information System Voice Broadcasting Information System Voice Broadcasting Information System Voice Broadcasting Information System
VOLMET†	Meteorological information for aircraft in flight Wetterinformationen für Luftfahrzeuge im Fluge Renseignements météorologiques destinés aux aéronefs en vol Informazioni meteorologiche per aeromobili in volo
VOR	VHF omnidirectional radio-range Ultrakurzwellen-Drehfunkfeuer Radiophare omnidirectionnel VHF Radiofaro omnidirezionale VHF
VORTAC†	VOR and TACAN combination Kombination VOR und TACAN Combinaison VOR et TACAN Combinazione VOR e TACAN
VRB	Variable Veränderlich Variable Variabile
VSS*	Visual segment surface Freifläche des visuellen Segments Surface du segment visual Superficie del segmento visivo

W

W	White Weiss Blanc Bianco
W	West *or* western longitude West *oder* westliche Länge Ouest *ou* longitude ouest Ovest *o* longitudine ovest
WB	Westbound Richtung West En direction de l'ouest Direzione Ovest

WDI	Wind direction indicator Windrichtungsanzeiger Indicateur de direction du vent Indicatore della direzione del vento
WED	Wednesday Mittwoch Mercredi Mercoledì
WEF	With effect from *or* effective from Mit Wirkung vom... Prend effet à partir de... Con effetto da...
WeGOM*	Web-GIS Obstacle Map Web-GIS Obstacle Map Web-GIS Obstacle Map Web-GIS Obstacle Map
WGS-84	World geodetic system-1984 World geodetic system-1984 World geodetic system-1984 World geodetic system-1984
WID	Width Breite Largeur Larghezza
WIE	With immediate effect *or* effective immediately Mit sofortiger Wirkung Prend effet immédiatement Con effetto immediato
WILCO	Will comply Wird ausgeführt Compris je vais exécuter Eseguo
WINTEM	Forecast upper wind and temperature for aviation Obere Wind- und Temperaturvorhersagen für die Luftfahrt Prévision du vent et de la température en altitude pour l'aviation Previsione del vento in quota e della temperatura per l'aviazione
WIP	Work in progress Arbeiten im Gang Travaux en cours Lavori in corso
WNW	West-north-west Westnordwest Ouest-nord-ouest Ovest-Nord-Ovest
WRNG	Warning Warnung Avertissement Avvertimento
WS	Wind shear Windscherung Cisaillement du vent Shear del vento

WSW	west-south-west Westsüdwest Ouest-sud-ouest Ovest-Sud-Ovest
WX	Weather Wetter Temps *(conditions météorologiques)* Tempo *(condizioni meteorologiche)*

X

XBAR	Cross bar *(of approach lighting system)* Querbalken *(Anflugbefeuerung)* Barre transversale *(dispositif lumineux d'approche)* Barra trasversale *(sistema luminoso di avvicinamento)*

Y

Y	Yellow Gelb Jaune Giallo
YCZ	Yellow caution zone *(runway lighting)* Gelbe Vorsichtszone *(Pistenbefeuerung)* Zone jaune de prudence *(balisage lumineux de piste)* Zona gialla di prudenza *(sistema luminoso di pista)*

Z

Z	Coordinated universal time *(in meteorological messages)* Koordinierte Weltzeit *(in meteorologischen Meldungen)* Temps universel coordonné *(dans les messages météorologiques)* Orario universale coordinato *(nei messaggi meteorologici)*

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1 Aircraft ground marshalling signals

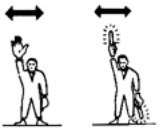
1.1 Signals from the marshal to a pilot

The marshal giving these signals usually stands in the middle of the apron in front of the aeroplane or helicopter in view of the pilot.

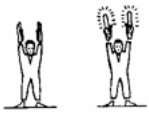
The meaning of the signals is the same whether bats, illuminated wands or torchlights are used.

Description and significance of the signals.

1. **Come ahead under the control of the marshal**
   The left arm is pointed downwards.
   The right arm with the palm of the hand facing outwards is moved left and right over the head.

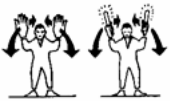


2. **This Bay**
   Raise fully extended arms straight above head.
   Palms of the hands facing inwards.



3. **Proceed to next marshal**
   The right or left arm is pointed downwards, the other arm is positioned horizontally across the body in the direction of the next marshal.

4. **Straight ahead**
   Bend extended arms at elbows and move up and down from chest height to head.



5. **Turn**

a. to the left:

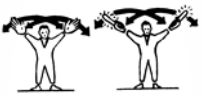
With right arm extended at a 90° angle to body make repeated ”come ahead” signals with left hand.
The rate of signal motion indicates to pilot the rate of turn.

b. to the right:

With left arm extended at a 90° angle to body make repeated “come ahead” signals with right hand.
The rate of signal motion indicates to pilot the rate of turn.

6. **Normal stop**

Fully extend arms at a 90° angle to the body.
Slowly move to above head until arms cross. The rate of signal motion indicates the urgency of the stop signal.



7. **Brake**

a. Apply brakes:

Raise hand just above shoulder height with open palm.
Close hand into a fist.

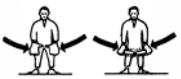
b. Release brakes:

Raise hand just above shoulder height with hand closed in a fist.
Open palm of the hand

8. **Brake chocks**

a. Chocks inserted:

With arms fully extended above head, move arms inwards in a “jabbing” motion until arms touch.

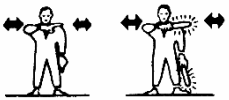


b. Remove chocks:

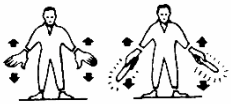
With arms fully extended above head, move arms outwards in a “jabbing” motion.

9. **Start engine(s)**
Raise right arm to head level and pointing upwards. Start a circling motion with the hand, at the same time, with the left arm raised above the head, point to the engine to be started.

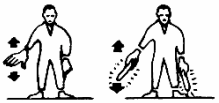
10. **Cut engine(s)**
Extend arm forward of body at shoulder level; move hand to top of left shoulder and draw arm to top of right shoulder in a slicing motion across throat.



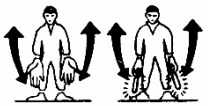
11. **Slow down**
Move extended arms downwards in a “patting” gesture, moving arms up and down from waist to knees.



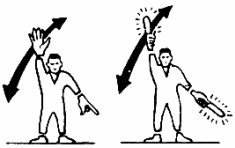
12. **Slow down engine(s) on the indicated side**
With arms down pointing towards the ground, wave either left or right arm up and down indicating engine(s) on left or right side should be slowed down.



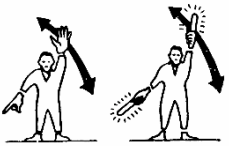
13. **Move back**
With arms in front of body at waist height, rotate arms in a forward motion.



14. **Turning whilst moving backwards**
a. Tail to starboard (right):
Point left arm down and bring right arm from overhead vertical position to horizontal forward position, repeating right arm movement.

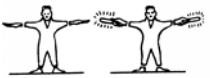


b. Tail to port (left):
Point right arm down and bring left arm from overhead vertical position to horizontal forward position, repeating left arm movement.

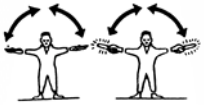


15. **Affirmative/all clear**
Raise right arm to head level pointing upwards or display hand with "thumbs up";
Left arm remains at side by knee.

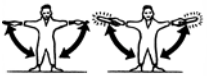
16. **Remain hovering**
Fully extended arms at a 90° angle to sides.



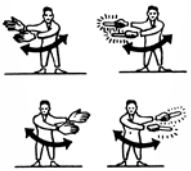
17. **Move upwards**
Fully extend arms at a 90° angle to sides and, with palms turned up, move arms upwards.
Speed of movement indicates rate of ascent.



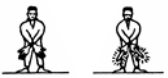
18. **Move downwards**
Fully extend arms at a 90° angle to sides and, with palms turned down, move arms downwards.
Speed of movement indicates rate of descent.



19. **Move horizontally**
Extend appropriate (left or right) arm horizontally at a 90° angle to left or right side of body.
Move other arm in same direction in a sweeping motion.



20. **Land**
Cross arms pointing downwards and in front of body.



1.2 **Signals from a pilot to a ground marshal**

The pilot gives these signals from the cockpit whereby his hands must be clearly visible to the marshal and, if necessary, illuminated.

Brake

Brakes applied:
Raise the arm and hand, with fingers extended, horizontally in front of the face, then clench fist.
Brakes released:
Raise arm, with fist clenched, horizontally in front of the face, then extend fingers.

Brake chocks

Insert chocks:

Arms extended, palms outwards, move hands inwards to cross in front of face.

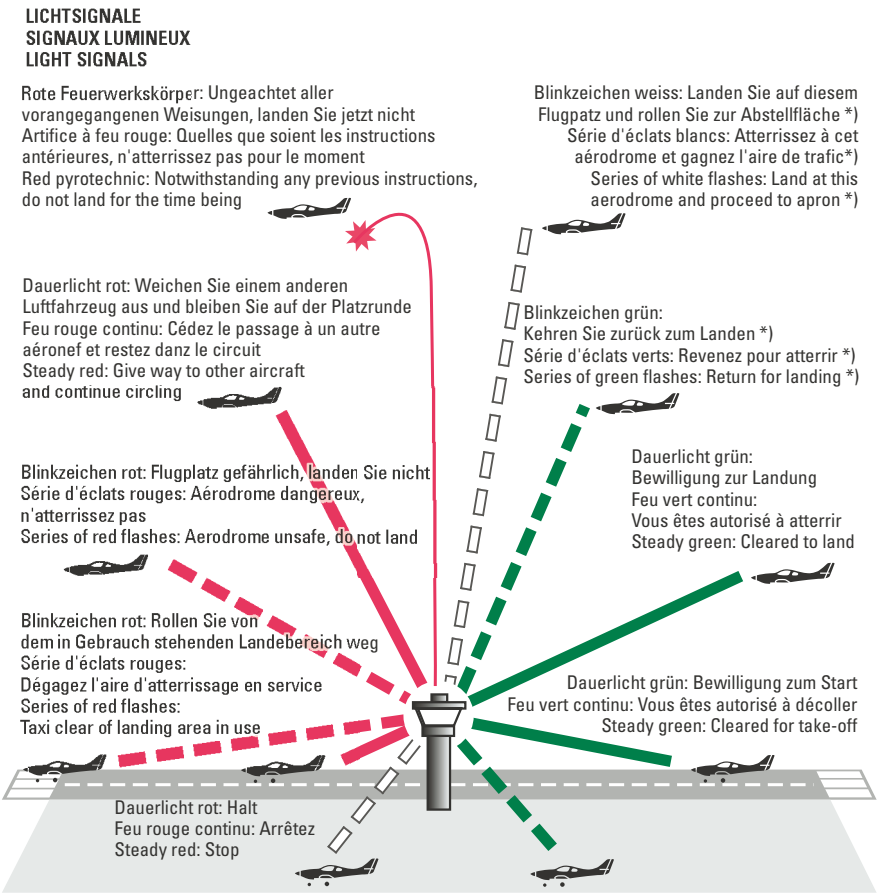
Remove chocks:

Hands crossed in front of face, palms outwards, move arms outwards.

Ready to start engine(s):

Raise the appropriate number of fingers on one hand indicating the number of engines to be started. The engines, as seen by the marshal standing in front of the aircraft, are numbered from right to left. Engine no. 1, as seen from the pilot's perspective, is therefore outer left.

2 Aviation light signals



*) Die Bewilligung zum Landen und zum Rollen folgen zu gegebener Zeit
L'autorisation d'atterrir et l'autorisation de circuler seront communiquées en temps utile
Clearances to land and to taxi will be given in due course

3 **Visual ground signals**

4 **SEARCH AND RESCUE CODES**

(Ref. ICAO Annex 12)

Ground-to-air codes

from survivors

No.	Message	Code
1	Require assistance	V
2	Require medical assistance	X
3	No	N
4	Yes	Y
5	Proceeding to this direction	

Ground-to-air codes

from search teams

No.	Message	Code
1	Operation completed	LLL
2	We have found all personnel	L L
3	We have found only some personnel	
4	We are not able to continue. Returning to base	X X
5	Have divided into two groups. Each proceeding in direction indicated	
6	Information received that aircraft is in this direction.	
7	Nothing found. Will continue search	N N

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1 CIVIL AERODROMES

1.1 CONDITIONS OF AVAILABILITY

Civil aircraft are not permitted to land at any **aerodromes** not listed in this VFR Manual except in an emergency case.

Restrictions of use can be ordered temporarily for aerodromes where certain conditions are not fulfilled, e.g. reduced rescue and fire fighting services or restricted radio communications.

Consult NOTAM.

Any aircraft arriving from or departing for abroad must use an aerodrome open to international traffic. Emergency landings are reserved.

REF: AIP AD 1.3

Airport operating hours are guaranteed. In the case of private airfields, operating hours should be requested when filing the flight plan.

2 CUSTOMS EXPERTISE OF AERODROMES

2.1 Airports

Swiss aerodromes open to public traffic are referred to as airports and have categories A, B or C customs expertise in accordance with Swiss law.

REF: AIP AD 1.3

Map AGA 1-0-APP 1

2.2 Basel (LFSB): visual flights during the day with aircraft registered in Switzerland to Swiss territory and vice versa.

Visual flights during the day with aircraft registered in Switzerland from Basle-Mulhouse Airport to Swiss territory and vice versa are considered as flights within Swiss airspace. The submission of a flight plan is not necessary.

Aircraft commanders are obliged to consult the applicable French and Swiss aeronautical information, including the relevant aviation meteorological information, and to follow the applicable aviation regulations in the respective country.

2.3 Aerodromes with restricted customs expertise

These are national aerodromes conforming to customs category D in accordance with Swiss law. Although the use of private airfields and national aerodromes is not generally approved for cross-border flights, the competent customs office may authorise cross-border flights, at listed aerodromes, from and to another Schengen State subject to the following conditions:

1. Authorised goods:
   a) the equipment on the aircraft;
   b) personal effects of the passengers and crew;
   c) ready-to-eat foodstuffs and non-alcoholic beverages for ordinary consumption by persons on board;
   d) tobacco products and alcoholic drinks up to the duty-free allowance, and other goods not exceeding the duty-free allowance.
2. The aircraft is not subject to any customs processing (temporary clearance without customs documents).
3. It is not refuelled free of duties.
4. Passport control is ensured by the competent authority.

Any additional information may be requested from the manager of the aerodrome or the competent customs office.

REF: AIP AD 1.3

Map VFR AGA 1-0-APP 1

AD INFO, § 9

https://www.bazg.admin.ch/en/cross-border-flights-and-customs-regulations

→ Customs-declaration/Declaration-private-individuals / Cross-border flights

2.4 **Aerodromes without customs expertise**

The use of airfields (aerodromes not mentioned in 2.1 and 2.2) for cross border traffic is not authorised. In exceptional cases, aerodromes may request authorisation from the Regional Customs Directorate (individual authorisation) or the Directorate General of Customs (general authorisation).

REF: AIP AD 1.3

Map VFR AGA 1-0-APP 1

AD INFO, § 9

https://www.bazg.admin.ch/en/cross-border-flights-and-customs-regulations

→ Customs-declaration/Declaration-private-individuals / Cross-border flights

3 SUPPLEMENTARY REGULATIONS

3.1 **Aerodrome Lighting**

The aerodrome operator decides when the aerodrome lighting shall be switched on for take-off and landing of aircraft.

The aerodrome lighting shall be operated when its use is required for the safety of air traffic during the hours of darkness of during the day in conditions of poor visibility, or when requested by an aircraft crew.

3.2 **VFR flights by night (NVFR)**

NVFR flights can be operated only at, from or to aerodromes equipped for this purpose and agreed by the Federal Office ofCivil Aviation (FOCA) → **AD INFO**.

This restriction does not apply to search and rescue flights, to police, training, or urgent transport flights, operated by helicopter, nor to balloon ascents.

For the implementation of **NVFR flights pursuant to article 27 ORA / Rules of the Air**, it is further required that the local Operating Rules be complied with.

3.3 **Visual Aids**

The visual aids must include the following elements as a minimum:

a) Lighting:
   - White runway edge lights/green threshold lights/red runway lights;
   - Red obstacle lights.

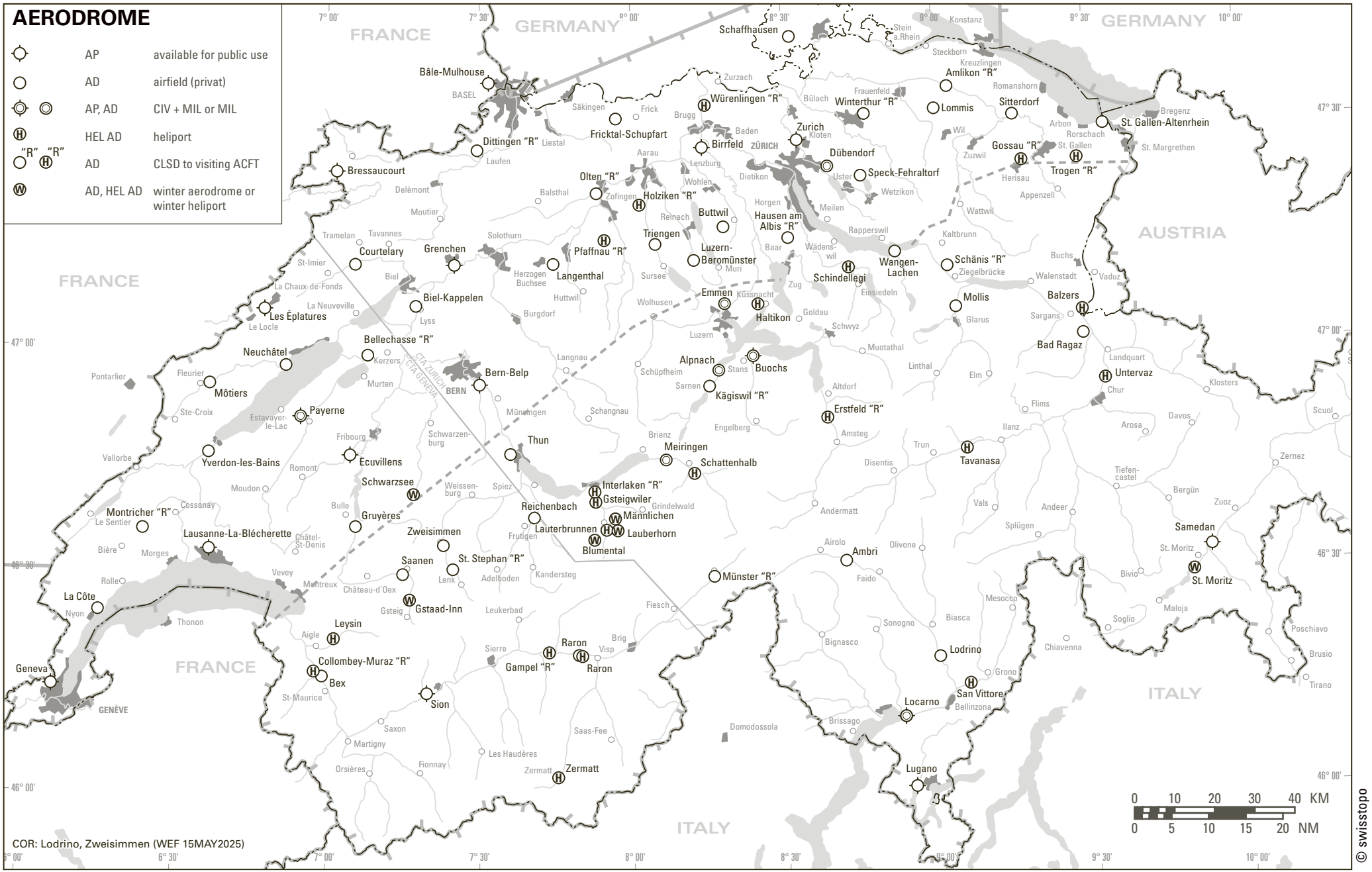
b) Signalling devices: signalling lamp.

c) Illuminated wind direction indicator (WDI). For the operation of NVFR flights pursuant to article 27 ORA/Rules of the air, it is further required that the local Operating Regulations be complied with.

For night flights, visibility must be at least 8 km, and the horizontal distance from the clouds at least 1.5 km, and the vertical distance from the clouds at least 300 m.

3.4 **Cross-country flights by night**

At the aerodrome of departure the lighting may be turned off at the earliest 15 minutes after take-off. At the destination aerodrome, it shall be brought into operation at the latest 15 minutes before the expected landing time.



skyguide, CH-8602 Wangen bei Dübendorf

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1. LIST OF WGS84 COORD OF AERODROME REFERENCE POINTS (ARP) AND THRESHOLDS (THR) OF IFR RWY

1. LISTE VON WGS84-KOORDINATEN DES FLUGPLATZBEZUGSPUNKTES (ARP) UND DER SCHWELLEN (THR) DER IFR RWY

1. LISTE DES COORD WGS84 DES POINTS DE RÉFÉRENCE (ARP) ET SEUILS (THR) D'AÉRODROME DE L'IFR RWY

1. LISTA DI COORD WGS84 DI PUNTI DI RIFERIMENTO AERODROMO (ARP) E SOGLIE (THR) DI IFR RWY

Aerodrome	ARP		THR of IFR RWY		
Aarau Kantonsspital (HEL)	*47 23 18 N*	*008 03 32 E*	NIL		
Alpnach (MIL)	*46 56 38 N*	*008 17 03 E*	NIL		
Ambri	*46 30 45 N*	*008 41 36 E*	NIL		
Amlikon	*47 34 27 N*	*009 02 51 E*	NIL		
Bad Ragaz	*47 00 54 N*	*009 28 55 E*	NIL		
Basel Universitätsspital (HEL)	*47 33 40 N*	*007 35 04 E*	NIL		
Balzers (HEL)	*47 04 05 N*	*009 28 52 E*	NIL		
Bellechasse	*46 58 46 N*	*007 07 57 E*	NIL		
Bern-Belp	*46 54 44 N*	*007 29 57 E*	THR 14 THR 32	*46 55 04.58 N* *46 54 26.60 N*	*007 29 32.98 E* *007 30 19.30 E*
Bern Inselspital (HEL)	*46 56 54 N*	*007 25 27 E*	NIL		
Bern-Sand (HEL)	*47 00 41 N*	*007 30 08 E*	NIL		
Bex	*46 15 30 N*	*006 59 11 E*	NIL		
Biel-Kappelen	*47 05 21 N*	*007 17 24 E*	NIL		
Bière (HEL)	*46 31 42 N*	*006 20 25 E*	NIL		
Birrfeld	*47 26 36 N*	*008 14 02 E*	NIL		
Blumental (winter AD)	*46 33 47 N*	*007 52 27 E*	NIL		
Bressaucourt	*47 23 33 N*	*007 01 44 E*	NIL		
Buochs	*46 58 28 N*	*008 23 49 E*	NIL		
Bure (HEL)	*47 27 18 N*	*007 00 57 E*	NIL		
Buttwil	*47 15 53 N*	*008 18 09 E*	NIL		
Chur Kantonsspital Graubünden (HEL)	*46 51 51 N*	*009 32 20 E*	NIL		
Collombey-Muraz (HEL)	*46 16 07 N*	*006 57 35 E*	NIL		
Courtelary	*47 11 00 N*	*007 05 27 E*	NIL		
Davos Regionalspital (HEL)	*46 47 15 N*	*009 48 51 E*	NIL		
Delémont (Hôpital de Delémont) (HEL)	*47 22 08 N*	*007 20 25 E*	NIL		
Dittingen	*47 26 20 N*	*007 29 29 E*	NIL		
Dübendorf (MIL)	*47 23 54 N*	*008 38 54 E*	THR 11 THR 29	*47 24 05.84 N* *47 23 43.10 N*	*008 38 01.40 E* *008 39 45.84 E*

Aerodrome	ARP		THR of IFR RWY		
Ecuvillens	*46 45 19 N*	*007 04 33 E*	NIL		
Emmen (MIL)	*47 05 32 N*	*008 18 17 E*	THR 04 THR 22	*47 05 03.47 N* *47 06 00.05 N*	*008 17 45.48 E* *008 18 49.46 E*
Erstfeld (HEL)	*46 50 01 N*	*008 38 20 E*	NIL		
Frauenfeld (MIL)	*47 34 13 N*	*008 53 27E*	NIL		
Fricktal-Schupfart	*47 30 32 N*	*007 57 00 E*	NIL		
Gampel (HEL)	*46 18 36 N*	*007 43 30 E*	NIL		
Genève	*46 14 18 N*	*006 06 34 E*	THR 04 THR 22	*46 13 40.23 N* *46 15 01.30 N*	*006 05 38.24 E* *006 07 37.22 E*
Genève HUG (HEL)	*46 11 35 N*	*006 08 54 E*	NIL		
Gossau (HEL)	*47 24 20 N*	*009 17 25 E*	NIL		
Gösgen (HEL)	*47 21 55 N*	*007 57 57 E*	NIL		
Grenchen	*47 10 53 N*	*007 24 59 E*	THR 06 THR 24	*47 10 48.99 N* *47 11 00.54 N*	*007 24 45.88 E* *007 25 23.51 E*
Gruyères	*46 35 39 N*	*007 05 40 E*	NIL		
Gstaad-Inn (winter HEL)	*46 25 45 N*	*007 16 15 E*	NIL		
Gsteigwiler (HEL)	*46 38 53 N*	*007 52 39 E*	NIL		
Haltikon (HEL)	*47 05 25 N*	*008 24 53 E*	NIL		
Hasenstrick	*47 16 48 N*	*008 52 55 E*	NIL		
Hausen am Albis	*47 14 20 N*	*008 30 56 E*	NIL		
Holziken (HEL)	*47 18 51 N*	*008 01 34 E*	NIL		
Interlaken (HEL)	*46 40 15 N*	*007 52 31 E*	NIL		
Interlaken Spital (HEL)	*46 40 51 N*	*007 50 39 E*	NIL		
Kägiswil	*46 54 26 N*	*008 15 11 E*	NIL		
La Côte	*46 24 23 N*	*006 15 29 E*	NIL		
Langenthal	*47 10 59 N*	*007 44 30 E*	NIL		
Lauberhorn (winter AD)	*46 35 02 N*	*007 57 00 E*	NIL		
Lausanne-La Blécherette	*46 32 43 N*	*006 37 00 E*	NIL		
Lausanne CHUV (HEL)	*46 31 28 N*	*006 38 27 E*	NIL		
Lauterbrunnen (HEL)	*46 35 08 N*	*007 54 48 E*	NIL		
Les Eplatures	*47 05 03 N*	*006 47 37 E*	THR 05 THR 23	*47 04 52.88 N* *47 05 11.02 N*	*006 47 15.95 E* *006 47 52.88 E*
Leysin (HEL)	*46 20 29 N*	*007 01 27 E*	NIL		
Locarno	*46 09 39 N*	*008 52 43 E*	NIL		

Aerodrome	ARP		THR of IFR RWY		
Lodrino	*46 17 39 N*	*008 59 34 E*	NIL		
Lommis	*47 31 29 N*	*009 00 13 E*	NIL		
Lugano	*46 00 13 N*	*008 54 37 E*	THR 01 THR 19	*45 59 58.08 N* *46 00 29.59 N*	*008 54 29.60 E* *008 54 45.04 E*
Luzern-Beromünster	*47 11 24 N*	*008 12 17 E*	NIL		
Luzern Kantonsspital (HEL)	*47 03 33 N*	*008 17 49 E*	NIL		
Meiringen (MIL)	*46 44 32 N*	*008 06 32 E*	THR 10 THR 28	*46 44 36.04 N* *46 44 28.87 N*	*008 05 46.61 E* *008 07 17.21 E*
Mollis	*47 04 45 N*	*009 03 54 E*	NIL		
Montricher	*46 35 25 N*	*006 24 02 E*	NIL		
Môtiers	*46 55 00 N*	*006 36 54 E*	NIL		
Münster	*46 28 49 N*	*008 15 48 E*	NIL		
Männlichen (winter AD)	*46 36 38 N*	*007 56 30 E*	NIL		
Neuchâtel	*46 57 27 N*	*006 51 53 E*	NIL		
Nottwil SPZ Schweizer Paraplegiker-Zentrum (HEL)	*47 08 31 N*	*008 07 49 E*	NIL		
Olten	*47 20 29 N*	*007 53 04 E*	NIL		
Payerne (MIL, CIV)	*46 50 33 N*	*006 54 49 E*	THR 05 THR 23	*46 50 07.24 N* *46 51 03.11 N*	*006 54 07.75 E* *006 55 39.01 E*
Pfaffnau (HEL)	*47 14 07 N*	*007 54 36 E*	NIL		
Porrentruy (Hôpital du Jura) (HEL)	*47 25 09 N*	*007 03 25 E*	NIL		
Raron	*46 18 16 N*	*007 49 18 E*	NIL		
Raron (HEL)	*46 18 05 N*	*007 49 58 E*	NIL		
Reichenbach	*46 36 49 N*	*007 40 40 E*	NIL		
Rennaz (HEL)	*46 22 40 N*	*006 55 24 E*	NIL		
Rennaz (Hôpital Riviera-Chablais) (HEL)	*46 22 49 N*	*006 55 16 E*	NIL		
Saanen	*46 29 11 N*	*007 14 55 E*	NIL		
Samedan	*46 32 04 N*	*009 53 02 E*	THR 03 THR 21	*46 31 38.32 N* *46 32 26.26 N*	*009 52 41.95 E* *009 53 20.84 E*
San Vittore (HEL)	*46 13 56 N*	*009 05 23 E*	NIL		
St. Gallen-Altenrhein	*47 29 06 N*	*009 33 43 E*	THR 10 THR 28	*47 29 09.57 N* *47 29 03.04 N*	*009 33 05.74 E* *009 34 08.31 E*
St. Gallen-Breitfeld (MIL)	*47 24 38 N*	*009 18 00 E*	NIL		

Aerodrome	ARP		THR of IFR RWY		
St. Gallen Kantonsspital (HEL)	*47 25 51 N*	*009 23 13 E*	NIL		
St. Gallen Ostschweizer Kinderspital (HEL)	*47 25 46 N*	*009 23 40 E*	NIL		
St. Moritz (winter HEL)	*46 28 44 N*	*009 49 27 E*	NIL		
Schaffhausen	*47 41 25 N*	*008 31 36 E*	NIL		
Schattenhalb (HEL)	*46 42 45 N*	*008 12 09 E*	NIL		
Schindellegi (HEL)	*47 10 13 N*	*008 42 51 E*	NIL		
Schänis	*47 10 18 N*	*009 02 22 E*	NIL		
Schwarzsee (Winter AD)	*46 39 58 N*	*007 16 59 E*	NIL		
Sion	*46 13 09 N*	*007 19 37 E*	THR 07 THR 25	*46 13 00.73 N* *46 13 18.56 N*	*007 18 55.42 E* *007 20 19.05 E*
Sion (Hôpital de Sion) (HEL)	*46 14 04 N*	*007 23 14 E*	NIL		
Sitterdorf	*47 30 32 N*	*009 15 46 E*	NIL		
Speck-Fehraltorf	*47 22 35 N*	*008 45 27 E*	NIL		
Tavanasa (HEL)	*46 45 38 N*	*009 05 34 E*	NIL		
Thun	*46 45 23 N*	*007 36 02 E*	NIL		
Triengen	*47 13 36 N*	*008 04 41 E*	NIL		
Trogen (HEL)	*47 24 32 N*	*009 28 23 E*	NIL		
Untervaz (HEL)	*46 54 44 N*	*009 33 04 E*	NIL		
Wangen-Lachen	*47 12 17 N*	*008 52 03 E*	NIL		
Winterthur	*47 30 54 N*	*008 46 19 E*	NIL		
Winterthur Kantonsspital (HEL)	*47 30 26 N*	*008 43 42 E*	NIL		
Würenlingen (HEL)	*47 32 14 N*	*008 14 41 E*	NIL		
Yverdon-les-Bains	*46 45 43 N*	*006 36 48 E*	NIL		
Zermatt (HEL)	*46 01 46 N*	*007 45 12 E*	NIL		
Zürich	*47 27 29 N*	*008 32 53 E*	THR 14 THR 32 THR 16 THR 34 THR 10 THR 28	*47 28 55.53 N* *47 27 40.65 N* *47 28 32.57 N* *47 26 57.39 N* *47 27 32.18 N* *47 27 23.76 N*	*008 32 09.87 E* *008 33 52.06 E* *008 32 09.37 E* *008 33 14.91 E* *008 32 14.93 E* *008 34 13.63 E*
Zürich Kinderspital (HEL)	*47 21 06 N*	*008 34 17 E*	NIL		
Zürich Universitätsspital (HEL)	*47 22 37 N*	*008 33 04 E*	NIL		
Zweisimmen	*46 33 06 N*	*007 22 52 E*	NIL		

1 NOTES ON AD INFO

1.1 Fuel and Ground Services

→ AD INFO, § 8

PF = Piston engined aircraft fuel (AVGAS 100LL)
TF = Turbine aircraft fuel (KER, JET A1)
S1 = Hangarage
S2 = Hangarage and minor aircraft repairs
S3 = Hangarage, minor aircraft repairs and minor engine repairs
S4 = Hangarage, major aircraft repairs and minor engine repairs
S5 = Hangarage, major aircraft repairs and major engine repairs

1.2 Fire-fighting equipment

The minimum fire-fighting equipment required at the aerodrome depends upon the dimensions of the aircraft whereby the following ICAO classification applies.

Category	Aeroplane overall length (m)	MAX fuselage width (m)
1	- 9	2
2	9-12	2
3	12-18	3
4	18-24	4
5	24-28	4
6	28-39	5
7	39-49	5
8	49-61	7
9	61-76	7
10	76-90	8

AD INFO, § 8 provides information about which fire-fighting resources are available at the aerodrome. The information includes the category corresponding to the available resources and the overall length of the aeroplane.

At some aerodromes fire-fighting resources are only available if previously requested (O/R), due to lack of personnel.

When no information is given, only hand-held and small fire extinguishers may be available at the aerodrome.

2 **Pavement Strength**

→ AD INFO, RWY Table, col. 7

Specified:

- the maximum permissible weight (MPW) of aircraft in kilogrammes (kg), or
- The tyre pressure in MPa for grass runways (1 MPa = 10,19 kg/cm2).

Taking into account the actual ground conditions, the airport authorities may admit higher tyre pressures.

Bern-Belp, **Buochs, Les Eplatures, Geneva, Grenchen, Lausanne, Locarno, Lugano**, **Mollis, Payerne, St. Gallen-Altenrhein**, **Saanen**, **Samedan**, **Sion**, and **Zurich** aerodromes, applying the method ACR-PCR (Aircraft Classification Rating - Pavement Classification Rating) as described in ICAO Annex 14, § 2.6, Pavement Strength.

Example: PCR 240 F / B / Y / T

1 **2** **3** **4** **5**

1 Pavement classification rating

2 Pavement type:

Rigid pavement	= R
Flexible pavement	= F

3 Subgrade strength category:

High strength	= A
Medium strength	= B
Low strength	= C
Ultra-low strength	= D

4 Maximum allowable tire pressure category:

Unlimited: no pressure limit	= W
High: pressure limited to 1.75 MPa	= X
Medium: pressure limited to 1.25 MPa	= Y
Low: pressure limited to 0.50 MPa	= Z

5 Evaluation method:

Technical evaluation, scientific study	= T
Using aircraft experience, empirical value	= U

3 **Available lengths on visual approach runways with displaced thresholds**

→ AD INFO, RWY Table, col. 3+4

3.1 **Available length for landing**

Should a safe approach to the runway extremity be obstructed by obstacles, a displaced threshold will be determined, resulting in a reduction in the runway length available for landing.

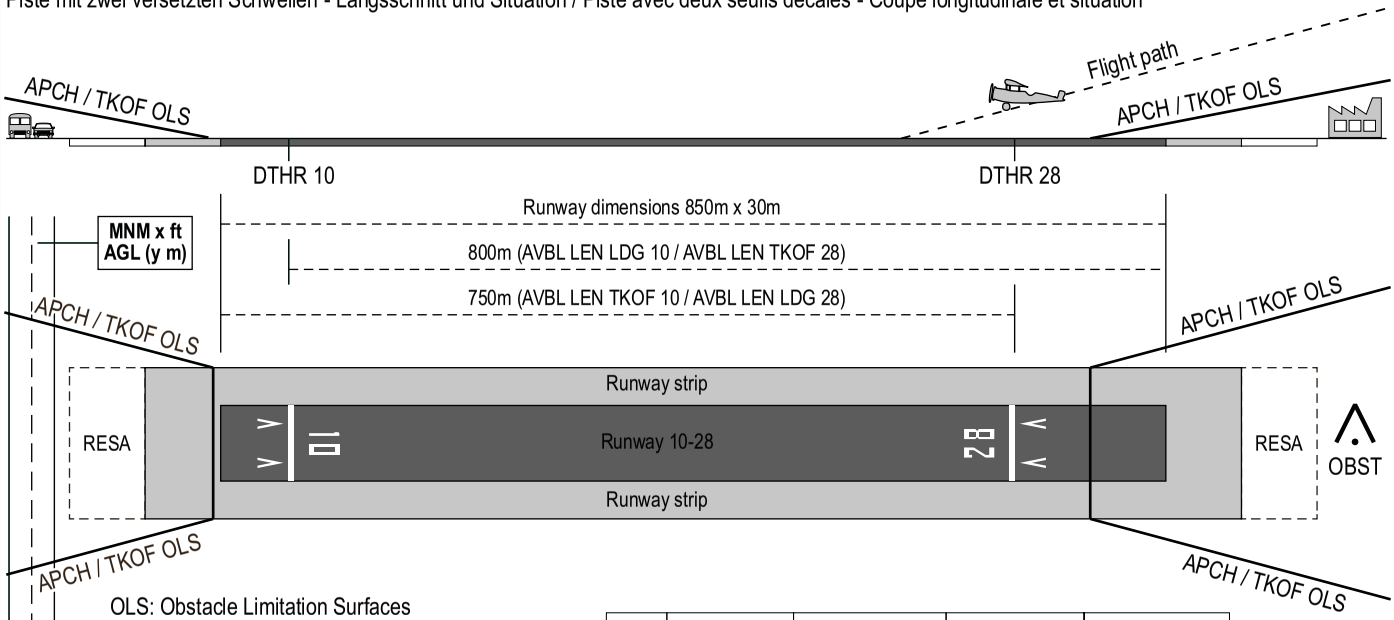
3.2 **Available length for take-off**

Obstacles requiring a displacement of the threshold are likewise critical at take-off, and require a reduction of the runway length as well.

Runway lengths available for landing and take-off can be seen in AD INFO as in the following example.

3.3 Example / Esempio / Beispiel / Exemple

Runway with both thresholds displaced - Longitudinal cross section and situation / Pista con le due soglie spostate - Sezione longitudinale e situazione
Piste mit zwei versetzten Schwellen - Längsschnitt und Situation / Piste avec deux seuils décalés - Coupe longitudinale et situation



OLS: Obstacle Limitation Surfaces
OLS: Superficie di limitazione degli ostacoli
OLS: Hindernisbegrenzungsflächen
OLS: Surfaces de limitation d'obstacles

RESA: Runway End Safety Area
RESA: Area di sicurezza di fine pista
RESA: Pistenende-Sicherheitsfläche
RESA: Aire de sécurité d'extrémité de piste

NR	RWY BRG TRUE/MAG	RWY Dimension [m]	AVBL LEN LDG [m]	AVBL LEN TKOF [m]
10	101/099	850 x 30	800	750
28	281/279		750	800

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Lärmabhängige Gebührenklassen für Luftfahrzeuge ohne spezielle Schalldämpfung

Classes de tarif en fonction du bruit pour les aéronefs sans atténuateur spécial de bruit

Noise dependent tariff classes for aircraft without special sound-proofing

Classificazione tariffaria dipendente dal rumore per aeromobili sprovvisti di un apposito riduttore di emissione fonica

ICAO Code	Aicraft manufacturer	Aircraft type	MTOW in kg	Engine manufacturer	Engine type	Propeller manufacturer	Propeller type	Noise class
F260	Aermacchi	F260	1102	Lycoming	O-540-E4A5	Hartzell	HC-C2YK-1BF/F8477-8R	C
F260	Aermacchi	F260C	1102	Lycoming	O-540-E4A5	Hartzell	HC-C2YK-1BF/F8477-8R	B
F260	Aermacchi	F260C	1102	Lycoming	O-540-E4A5	MT	MTV-9-B/188-50	D
S208	Aermacchi	S208	1350	Lycoming	O-540-E4A5	Hartzell	HC-C2YK-1B/F8477-8R	C
P220	AERO SP	AT-3 R100	582	Rotax	912 S2	Elprop	3-1-1P	D
CH7A	Am. Champ.	7AC	554	Continental	C-90-8F	Sensenich	M76AK-2-46	D
CH7B	Am. Champ.	7GCAA	794	Lycoming	O-320-B2B	Sensenich	74DM6S8-0-56	C
CH7B	Am. Champ.	7GCBC	818	Superior	O-360-A3A2	Sensenich	76EM8S8-0-58	C
BL8	Am. Champ.	8KCAB	816	Lycoming	AEIO-360-H1A	Hartzell	C2YR-4CF/FC7666A-4	B
BL8	Am. Champ.	8KCAB	885	Lycoming	AEIO-360-H1A	MT	MTV-9-B-C/C188-18b	A
CP10	Apex	CAP 10 B	830	Lycoming	AEIO-360-B2F	Hoffmann	HO-29-HM-180-170	B
A210	Aquila	AT01	750	Rotax	912 S3	MT	MTV-21-A/175-05	D
AUS5	Auster	V	840	Lycoming	O-290-D2	McCauley	1A170/GM7450	A
PUP	Beagle	B121	873	Lycoming	O-320-A2B	Sensenich	M74DMS-0-60	B
B14A	Binder	14-13-3	975	Franklin	6A4-150-B3	McCauley	1A170/DM7456	B
CP30	Binder	CP301S	680	Continental	C-90-12F	McCauley	1B90/CM7150	C
CP30	Binder	CP301S SMAR.	680	Continental	O-200-A	McCauley	1A100/MCM6758	B
AS25	Binder	ASH 25 EB 28	810	Solo	2 625 02	Technoflug	KS-1G-160-R-120	D
KL07	Boelkow	207	1200	Lycoming	O-360-A1A	Hartzell	HC-92ZK-8D/8447-12A	D
JUNR	Boelkow	BO-208C „JUN“	630	Teledyne	O-200-A	McCauley	1A100/MCM6758	C
JUNR	Boelkow	BO-208C „JUN“	630	RR	O-200-A	McCauley	1A100/MCM6955	C
PILO	Borowski	PICCOLO	297	Solo	2350B	Borowski	KS-118-3-S	D
BN2B	Britten Norm.	BN2B-20 Islander	2994	Lycoming	IO-540-K1B5	Hartzell	HC-C2YK-2CF/FC8477-6	C
BU33	Bücker	133	640	Bramo	SH-14A4	K+W	D220/S148	D
CE43	CERVA	CERVA CE 43	1460	Lycoming	IO-540-C4B5	Hartzell	HC-C2YK-1BF/F8477-7	C
C140	Cessna	140	660	Lycoming	O-235-K2A	Hoffmann	HO-14-178-115	A
C140	Cessna	140	660	Continental	C-85-12F	McCauley	1A90/CF7150	A
C140	Cessna	140	660	Lycoming	O-235-K2A	Sensenich	72CK-0-56	A
C140	Cessna	140	660	Cont./RR	O-200-A	Sensenich	M69CK52	A
C140	Cessna	140	660	Continental	C-90-12F	Sensenich	M76-AK	C
C140	Cessna	140 A	680	Continental	C-90-12F	McCauley	1B90/CM7146	C
C150	Cessna	150 D	799	Lycoming	O-360-A4A	Hoffmann	HO-4/27HM-170 125	D

ICAO Code	Aicraft manufacturer	Aircraft type	MTOW in kg	Engine manufacturer	Engine type	Propeller manufacturer	Propeller type	Noise class
C150	Cessna	150 D	726	Cont./RR	O-200-A	McCauley	1A100/MCM 6950	C
C150	Cessna	150 D	726	Cont./RR	O-200-A	Sensenich	69CK-0-52	C
C152	Cessna	152	758	Lycoming	O-235-L2C	McCauley	1A103/TCM6958	D
C170	Cessna	170 A	998	Lycoming	O-340-A1A	Hartzell	HC-A2XL-1	B
C170	Cessna	170 B	998	Lycoming	O-360-A1A	Hartzell	HC-C2YK-1	B
C170	Cessna	170,-A,-B	1000	Continental	C-145-2	McCauley	1A170/DM7653	B
C172	Cessna	172	998	Continental	O-300-A	McCauley	1A170/DM7653	C
C172	Cessna	172	1043	Franklin	6A-335-B	McCauley	2A31C21/84S-8	A
C172	Cessna	172 N	1043	Lycoming	O-320-H2AD	McCauley	1C160/DTM7557	C
C172	Cessna	172 P	1157	Lycoming	O-360-A4M	Sensenich	76EM8SPY-0-60	C
C72R	Cessna	172 RG	1202	Lycoming	O-360-F1A6	McCauley	B2D34C220/80VHA-3.5	C
C72R	Cessna	172 RG	1198	Lycoming	O-360-F1A6	MT	MTV-12-B/183-17	C
C175	Cessna	175	1066	Lycoming	O-360-A1D	Hartzell	HC-C2YK-1	C
C175	Cessna	175	1066	Franklin	6A-335-B	McCauley	2A31C21/84S-6	A
C175	Cessna	175	1066	Franklin	6A-350-C2	McCauley	2A31C21/84S-6	A
C175	Cessna	175	1066	Franklin	6A-335-B	McCauley	2A31C21/84S-8	C
C175	Cessna	175 B	1066	Lycoming	O-360-A1D	McCauley	2D36C14/78KM-4	C
C177	Cessna	177 B	1134	Lycoming	O-360-A1F6	McCauley	2D34C202/82PA-6	C
C77R	Cessna	177 RG	1270	Lycoming	IO-360A1B6D	McCauley	B2D34C207/78TA	B
C77R	Cessna	177 RG	1270	Lycoming	IO-360A1B6D	McCauley	C3D36C415/82NGA-8	D
C180	Cessna	180	1157	Continental	O-470-J	McCauley	2A34C203/90DCA-8	C
C182	Cessna	182...,-P	1338	Continental	O-470-R	McCauley	D3A32C411C/G82NDA-4	B
C182	Cessna	182E	1270	Continental	O-470-R	McCauley	2A34C50	C
C182	Cessna	182F	1270	Continental	O-470-R	McCauley	2A34C50	C
C182	Cessna	182F	1270	Continental	O-470-R	McCauley	2A34C66-()/()-90AT-8	C
C182	Cessna	182H	1270	Continental	O-470-R	McCauley	2A34C66/90AT-8	C
C182	Cessna	182H	1338	Continental	O-470-U	McCauley	C2A34C204/90DCB-8	D
C182	Cessna	182H	1270	Continental	O-470-U	McCauley	C2A34C204/90DCB-8	D
C182	Cessna	182L	1270	Continental	O-470-R	McCauley	2A34C66/90AT-8	C
C182	Cessna	182M	1270	Continental	O-470-R	McCauley	2A34C203/90DCA-8	C
C182	Cessna	182P	1338	Continental	O-470-S	McCauley	2A34C203/90DCA-8	B
C182	Cessna	182P	1338	Continental	O-470-R	McCauley	2A34C203/90DCA-8	B
C182	Cessna	182Q	1338	Continental	IO-550-F	McCauley	D3A34C401	D
C182	Cessna	182Q,R	1406	Continental	O-470-U	McCauley	C2A34C204/90DCB-8	D
C182	Cessna	182S	1406	Lycoming	IO-540-AB1A5	McCauley	B2D34C235/90DKB-8	D
C208	Cessna	208	3629	P&W	PT6A-114A	McCauley	3GFR34C703-()/()-()106GA-0	D
C208	Cessna	208	3629	P&W	PT6A-114A	MT	MTV-16-1-E-C-F-R(P)/CFR250-55	D
C208	Cessna	208B	3969	P&W	PT6A-114A	McCauley	3GFR34C703/106GA-0	C
C210	Cessna	210 F	1498	Continental	IO-520-A	McCauley	D3A32C77/82NK-2	C
C210	Cessna	210 L	1724	Continental	IO-520-L	Hartzell	PHC-J3YF-1RF/F7691	B
C210	Cessna	210 L	1724	Continental	IO-520-L	McCauley	D3A32C88/82NC-2	B
C310	Cessna	310 F	2191	Continental	IO-470-D	McCauley	3AF32C528/B2NEA-4	B
C310	Cessna	310 N	2359	Continental	IO-470-V	McCauley	D3AF32C80	C
C310	Cessna	310 Q	2404	Continental	IO-470-VO	McCauley	D3AF32C87/82NC-4	B
C320	Cessna	320 C	2360	Continental	TSIO-470-D	McCauley	D2AF34C54	B

ICAO Code	Aicraft manufacturer	Aircraft type	MTOW in kg	Engine manufacturer	Engine type	Propeller manufacturer	Propeller type	Noise class
C335	Cessna	335	2717	Continental	TSIO-520-EB	McCauley	3AF32C87/82NC-5.5	C
C340	Cessna	340	2710	Continental	TSIO-520-K	McCauley	3AF32C87/82NC-4	C
C340	Cessna	340 A	2717	Continental	TSIO-520-NB	Hartzell	PHC-C3YF-2UF/FC7663D-2Q	C
C340	Cessna	340 A	2853	Continental	TSIO-520-NB	MT	MTV-14-D-C-F/CF188-30g	C
C340	Cessna	340,-A	2717	Continental	TSIO-520-N	McCauley	3AF32C93/82NC-6.5	C
C402	Cessna	402 B	2858	Continental	TSIO-520-E	McCauley	3AF32C87/82NC-5.5	C
C402	Cessna	402 B	2858	Continental	TSIO-520-EB	McCauley	3AF32C87-NR/(S)-82NC-5.5	C
C414	Cessna	414	2880	Teledyne	TSIO-520-NB	MT	MTV-14-D-C-F/CF188-30g	D
C421	Cessna	421C	3429	Continental	GTSIO-520-L	McCauley	3FF32C501/90UMB-0	C
C421	Cessna	421C	3379	Continental	GTSIO-520-N	McCauley	3FF32C501/90UMB-0	D
C421	Cessna	421C	3379	Continental	GTSIO-520-L	McCauley	3FF32C501/90UMB-0	D
C425	Cessna	425	3900	P&W	PT6A-112	McCauley	4HFR34C762/94LMA-4	D
C185	Cessna	A 185 F	1520	Continental	IO-520-D	McCauley	D2A34C58	B
C185	Cessna	A 185 F	1519	Continental	IO-520-D	McCauley	D3A34C403/80VA-0	C
C150	Cessna	F 150 F	728	Cont./RR	O-200-A	McCauley	1A101/GGM6948	C
C150	Cessna	F 150 G	728	Cont./RR	O-200-A	McCauley	1A101/GGM6948	C
C150	Cessna	F 150 H	726	Cont./RR	O-200-A	McCauley	1A101/DCM6948	C
C150	Cessna	F 150 J	726	RR	O-240-A	McCauley	1A135/BRM7150	B
C150	Cessna	F 150 K	726	Lycoming	O-320-E2A	Sensenich	74DM6S5-0-58	C
C150	Cessna	F 150 L	726	Cont./RR	O-200-A	McCauley	1A101/GGM6948	C
C150	Cessna	F 150 M	726	Cont./RR	O-200-A	McCauley	1A102/OCM6948	C
C152	Cessna	F 152	758	Lycoming	O-235-L2C	McCauley	1A103/TCM6958	D
C172	Cessna	F 172 D,..-K	1043	Continental	O-300-C/-D	McCauley	1C172/EM7653	D
C172	Cessna	F 172 E	1043	Continental	O-300-D	McCauley	1C172/EM7653	B
C172	Cessna	F 172 H	1043	Lycoming	O-360-A1A	Hartzell	HC-C2YK-1B/7666A-2	D
C172	Cessna	F 172 K	1157	Lycoming	O-360-A4M	Sensenich	76EM8S14-0-60	C
C172	Cessna	F 172 M	1157	Lycoming	O-360-A4A	Sensenich	76EM8S14-0-60	C
C172	Cessna	F 172 M	1157	Lycoming	O-360-A4M	Sensenich	76EM8S14-0-60	C
C172	Cessna	F 172 N	1043	Lycoming	O-320-H2AD	McCauley	1C160/DTM7557	C
C172	Cessna	F 172 P	1089	Lycoming	O-320-D2J	McCauley	1C160/DTM7557	B
C77R	Cessna	F 177 RG	1270	Lycoming	IO-360-A1B6	McCauley	B2D34C207/78TCA	B
C77R	Cessna	F 177 RG	1270	Lycoming	IO-360-A1B6	McCauley	C3D36C415/82NGA-8	D
C182	Cessna	F 182 Q	1338	Continental	O-470-U	McCauley	C2A34C204	D
C182	Cessna	F 182 R	1406	Continental	O-470-U	McCauley	C2A34C204/90DCB-8	D
C152	Cessna	FA 152	758	Lycoming	O-235-L2C	McCauley	1A103/TCM6958	D
C152	Cessna	FA 152	758	Lycoming	O-235-L2C	Sensenich	72CKS6-0-56	D
C172	Cessna	FR 172 K	1157	Continental	IO-360-K	McCauley	2A34C203/90DCA-14	B
C182	Cessna	FR 182	1406	Lycoming	O-540-J3C5D	McCauley	B2D34C214/90DHB-8	D
C182	Cessna	FR 182	1406	Lycoming	O-540-J3C5D	McCauley	B2D34C218/90DHB-8	D
C150	Cessna	FRA 150 L	750	Lycoming	O-320-A3B	McCauley	1C172/TM7453	C
C150	Cessna	FRA 150 L	750	Lycoming	O-320-E2A	Sensenich	74DM6S5-0-58	C
C10T	Cessna	P 210 N	1814	Allison	DDA 250-B17F	Hartzell	HC-B3TF-7A/T921NK-2	D
C210	Cessna	P 210 N	1814	Continental	TSIO-520-P	Hartzell	PHC-J3YF-1RF/F7663D-2Q	D
C210	Cessna	P 210 N	1814	Continental	TSIO-520-P	MT	MTV-14-D/195-30a	A
C210	Cessna	P 210 N	1814	Continental	TSIO-520-P	MT	MTV-14-D/195-30b	D

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C210	Cessna	P 210 R	1860	Continental	TSIO-520-CE	MT	MTV-14-D/195-30a	C
C210	Cessna	P 210 R	1860	Continental	TSIO-520-CE	MT	MTV-14-D/195-30b	D
C82R	Cessna	R 182	1406	Lycoming	O-540-J3C5D	McCauley	B3D32C407/82NDA-3	D
C182	Cessna	RA F182 Q	1338	Continental	O-470-U	Hartzell	PHC-C3YF-1RF/F7663R	D
C210	Cessna	T 210 L	1724	Continental	TSIO-520-H	McCauley	D3A32C88/82NC-2	D
C210	Cessna	T 210 N	1814	Continental	TSIO-520-R	Hartzell	PHC-J3YF-1RF/F7663D-2Q	C
C210	Cessna	T 210 N	1814	Continental	TSIO-520-R	McCauley	D3A34C402/90DFA-10	B
C303	Cessna	T 303	2336	Continental	(L)TSIO-520-AE	McCauley	3AF32C506-()/()82NEB-8	D
C310	Cessna	T 310 P	2450	Continental	TSIO-520-B	McCauley	D2AF34C71	C
C310	Cessna	T 310 R	2495	Continental	TSIO-520-BB	McCauley	3AF32C504/82NEA-4	C
C310	Cessna	T 310 R	2495	Continental	TSIO-520-B	McCauley	3AF32C87/82NC-4	C
C182	Cessna	T182T	1406	Lycoming	TIO-540-AK1A	McCauley	B3D36C442/80VSB-1	D
C206	Cessna	T206H	1633	Lycoming	TIO-540-AJ1A	McCauley	B3D36C432/H-80VSA-1	D
C182	Cessna	TR 182	1406	Lycoming	O-540-L3C5D	McCauley	B2D34C217/90DHB-8	D
C182	Cessna	TR 182	1406	Lycoming	O-540-L3C5D	McCauley	B3D32C407/82NDA-3	D
C206	Cessna	U206F	1633	Thielert	Cent. 4.0 BE 221	MT	MTV-9-D/210-58	D
C206	Cessna	U206G	1633	Continental	IO-520-F	McCauley	D3A34C404/80VA-0	B
SR20	Cirrus	SR20	1360	Continental	IO-360-ES	Hartzell	PHC-J3YF-1MF/F7392-1	C
SR22	Cirrus	SR22	1542	Continental	IO-550-N	Hartzell	PHC-J3Y(1)F-1N/N7605(B)	C
P06T	Costr.Aero	P2006T	1180	BRP - Rot.	912 S3	MT	MTV-21-A-C-F/CF178-05	D
P06T	Costr.Aero	P2006T	1230	BRP - Rot.	912 S3	MT	MTV-21-A-C-F/CF178-05	D
ECHO	Costr.Aero	P2008-JC	630	Rotax	912 S2	GT	GT-2/173/VRR-FW101 SRTC	C
AC11	CPAC, Inc.	112	1200	Lycoming	IO-360-C1D6	Hartzell	HC-E3YR-1RF/F7392	C
AC11	CPAC, Inc.	112, -A	1202	Lycoming	IO-360-C1D6	Hartzell	HC-E2YR-1BF/F7666A	C
AC11	CPAC, Inc.	C 114	1425	Lycoming	IO-540-T4A5D	Hartzell	HC-C2YR-1BF/F8467-7R	C
AC11	CPAC, Inc.	C 114 A,-B	1474	Lycoming	IO-540-T4B5	McCauley	B3D32C419-()/()-82NHA-5	C
	Czech Sport	PS-28 Cruiser	600	Rotax	912 ULS2	Woodcomp	Klassic 170/3/R	D
DH60	De Havilland	DH 60 C	795	Gipsy	MAJOR I	De Havilland	5234/HX8	D
DH82	De Havilland	DH 82 A	828	Gipsy	MAJOR 10MK2	Hoffmann	HO21-198B140	D
DH82	De Havilland	DH 82 A (N.Z.)	828	Gipsy	MAJOR 1C	Hoffmann	HO 21-HM198B 140L	D
DH82	De Havilland	DH-82A	839	Gipsy	MAJOR I	DRG Prop	67104	C
DHC1	De Havilland	DHC 1MK 22	1000	Gipsy	MAJOR 10MK2	Fairey	A66753	B
DHC1	De Havilland	DHC 1MK 22	952	Gipsy	MAJOR 10MK2	Fairey	FR-A-66 753	C
DHC3	De Havilland	DHC-3	3629	P&W	PT6A-34	Hartzell	B3TN-3DY/T10282	A
DHC6	De Havilland	DHC-6-300	5670	P&W	PT6A-27	Hartzell	HC-D4N-3C/D9290K	D
DHC6	De Havilland	DHC-6-300, 310	5670	P&W	PT6A-27	Hartzell	HC-B3TN-3/D(Y)T10282H(B)+0	B
DHC6	De Havilland	DHC-6-310	5670	P&W	PT6A-27	Hartzell	HC-D4N-3C/D9290K	D
DHC6	De Havilland	DHC-6-400	5670	P&W	PT6A-34	Hartzell	HC-B3TN-3/D(Y)/T10282N*1	A
DG10	DG FZ-Bau	DG-1000 T	750	Solo	2350 C	DG FZ-Bau	DG-P001-1	D
DG10	DG FZ-Bau	DG-1000M	790	Solo	2 625 02i	Binder	BM-G1-160-R-120-1	D
DG40	DG FZ-Bau	DG-400	480	Rotax	505	Hoffmann	HO-11F-128B84	D
DG40	DG FZ-Bau	DG-400 (TM 826/29)	480	Rotax	505	MT	MT 136 R75-1B	D
DG50	DG FZ-Bau	DG-500 M	825	Rotax	535C	MT	MT 158 R 125-1A	D
DG60	DG FZ-Bau	DG-600 M,-18M	525	Rotax	275	MT	140L 92-1B	C
DG80	DG FZ-Bau	DG-800 A	525	Rotax	505	MT	MT 136 R75-1B	D

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DG80	DG FZ-Bau	DG-800 B	525	Solo	2625	Technoflug	KS-1G-152-R-122	D
DG80	DG FZ-Bau	DG-808 C	600	Solo	2-625-01	Technoflug	KS-1G-152-R-122-()-B	D
DG80	DG FZ-Bau	DG-808 C	525	Solo	2-625-01	Technoflug	KS-1G-152-R-122-()-B	D
DG10	DG FZ-Bau	LS10-st	600	Solo	2350	Technoflug	KS-1G-079-L-050-W	-
DA40	Diamond	DA 40	1150	Lycoming	IO-360-M1A	Hartzell	HC-C2YR-1BF/F7495S	D
DA40	Diamond	DA 40	1200	Lycoming	IO-360-M1A	MT	MTV-12-B/180-17()	C
DA40	Diamond	DA 40	1150	Lycoming	IO-360-M1A	MT	MTV-12-B/180-17()	D
DA40	Diamond	DA 40 D	1150	Thielert	TAE 125-01	MT	MTV-6-A/187-129	D
DA40	Diamond	DA 40 D	1150	Thielert	TAE 125-02-99	MT	MTV-6-D/187-129	D
DA42	Diamond	DA 42	1700	Thielert	TAE 125-01	MT	MTV-6-A-C-F/CF187-129	D
DA42	Diamond	DA 42	1785	Thielert	TAE 125-02-99	MT	MTV-6-A-C-F/CF187-129	D
DA42	Diamond	DA 42	1700	Thielert	TAE 125-02-99	MT	MTV-6-A-C-F/CF187-129	D
DA42	Diamond	DA 42	1785	Thielert	TAE 125-01	MT	MTV-6-A-C-F/CF187-129	D
DA42	Diamond	DA 42	1785	Thielert	TAE 125-02-99	MT	MTV-6-A-C-F/CF187-129	D
DA42	Diamond	DA 42 NG	1900	Austro Eng	E4 (E4-B)	MT	MTV-6-R-C-F/CF187-129	D
DA20	Diamond	DA20 A1	730	Rotax	912 F3	Hoffmann	HO-V352F-()170FQ	D
DA20	Diamond	DA20 A1	750	Rotax	912 S3	Hoffmann	HO-V352F-170FQ	D
DA20	Diamond	DA20 C1	800	Teledyne	IO-240-B()()	MT	MT 175 R 150-2Ca	D
DA20	Diamond	DA20 C1	750	Teledyne	IO-240-B()()	MT	MT 175 R 150-2Ca	D
DV20	Diamond	DA20-A1	730	Rotax	912 S3	Hoffmann	HO-V352F/C170FQ	D
DV20	Diamond	DV 20	730	Rotax	912 S3	Hoffmann	HO-V352F/C170FQ	D
DIMO	Diamond	HK 36TC	770	Rotax	912 A3	MT	MTV-21-A-C-F/CF175-05	D
DIMO	Diamond	HK 36TC100	770	Rotax	912 S3	MT	MTV-21-A-C-F/CF175-05	D
DIMO	Diamond	HK 36TTC	770	Rotax	914F3	MT	MTV-21-A-C-F/C175-05	D
DIMO	Diamond	HK 36TTS	770	Rotax	914F3	MT	MTV-21-A-C-F/C175-05	D
MCR1	Dyn-Aero	MCR-ULC	472.5	Rotax	914 UL2	Dyn'Aero	MKIHE 1000	D
MCR1	Dyn-Aero	MCR-ULC	472.5	Rotax	914 UL2	Neuform	DR3-56-47-101.6	D
PZ04	EADS PZL	PZL-104 Wilga 35	1300	WSK PZL	AI-14 RM	WSK PZL	US 122 000	D
C365	Eidg FZ-Werk	C-3605	3700	Lycoming	T53L7A	Hamilton	53C51-23	D
PK20	Eiriavion	PIK-20E	470	Rotax	505	Hoffmann	HO-11()-127-B-87	C
PK20	Eiriavion	PIK-20E	470	Rotax	501	Hoffmann	HO-11()-127-B-87	C
ERCO	Ercoupe	415 C	572	Continental	C-90-12F	McCauley	1A90/CF7144	A
ERCO	Ercoupe	415 D	635	Continental	C-90-12F	McCauley	1A90/CF7144	D
HMNY	Evektor	EV 97 Mod. 2000 R	472.5	Rotax	912 S	DUC	Swirl 174	D
BREZ	Experimental	Aerostyle Breezer	580	Rotax	912 ULS	Woodcomp	SR200	D
AVID	Experimental	AVID FLYER	413	Rotax	532LC	Perry	71-37	D
AVID	Experimental	AVID FLYER MK IV	521	Rotax	912 ULS	Arplast	Ecoprop 4T DE 3	D
AVID	Experimental	AVID HAULER	492	Rotax	582LC	Warp	Warp Drive	C
BX2	Experimental	BX-2	550	Continental	A-65	Brändli	160/150	D
MC10	Experimental	CRI-CRI MC 15	170	JPX	PUL 212	Eigenbau	MC/AS 695-200-103	C
MCR1	Experimental	Dyn-Aero MCR-01	450	Rotax	912 UL	MT	MTV 7-A/152-106	C
MCR4	Experimental	Dyn-Aero MCR-4S	750	Rotax	912 ULS	MT	MTV 6-A/156-122	C
EUPA	Experimental	Europa XS	621	Rotax	914 UL2	Woodcomp	SR3000/3	D
EXPR	Experimental	Express 2000 ER	1700	Continental	IO-580-B1A	MT	MTV-9D/198-52	D
EXPR	Experimental	Express S-90	1497	Continental	IO-550-N	MT	MTV-9D/198-52	D

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GLAS	Experimental	GLASAIR II FT	952	Lycoming	IO-360-B1E	Hartzell	HC-C2YK-1	D
GLAS	Experimental	GLASAIR II RG	951	Lycoming	O-320-D1A	MT	MTV-12-C	C
GLAS	Experimental	GLASAIR RG	862	Lycoming	IO-360-B1E	Hartzell	HC-C2YK-1	B
JAB4	Experimental	Jabiru J250	700	Jabiru	3300cc	Airmaster	AP332	B
FOX	Experimental	KITFOX 3	476	Jabiru	2200A	Jabiru	C000242 D 60 PO 42	C
FOX	Experimental	KITFOX 3; -4	476	Rotax	582LC	GSC	Tech III, Holz	D
FOX	Experimental	KITFOX 4	544	Rotax	912 UL	IVO	IVO-Propeller	D
FOX	Experimental	KITFOX 5	547	Rotax	912	Arplast	175DWAM	D
FOX	Experimental	KITFOX S4	500	Rotax	912 UL	Arplast	175DWAP 62/3	D
LNC2	Experimental	LANCAIR 320	794	Lycoming	O-320-D1F	MT	MTV-12-C/170-36	C
LNC2	Experimental	LANCAIR 320	765	Lycoming	O-320-E2A	MT	MTV-17-C/175-17	A
LGEZ	Experimental	LONG EZE	646	Lycoming	O-235-L2A	Great Am	62X60	A
LGEZ	Experimental	LONG EZE	690	Lycoming	O-320-D2A	Great Am	62X72	B
MAJR	Experimental	LUTON MAJ. LA5	635	RR	C90-14F	Hoffmann	HO-14-183100	C
HM19	Experimental	MIGNET HM19C	530	Continental	C-90-12	Hoffmann	HO-14-178-100	C
HM38	Experimental	MIGNET HM380	590	Continental	C-90-14F	Hoffmann	HO-14-178-115	C
POLI	Experimental	POLLIWAGEN	612	Revmaster	2100-D	Maloof	2C 3.9	B
PULS	Experimental	PULSAR XP	477	Rotax	912	GSC Canada	GSC	C
QUIC	Experimental	QUICKIE	225	Onan	18 HP	Cowley	P30 D42	D
D31	Experimental	STARK T. D31	270	VW	1200	Rousseau	Rousseau	C
D31	Experimental	STARK TURBULENT	320	VW	1500	Hoffmann	HO-FH2/S1113	D
JT2	Experimental	TAYLOR TITCH	460	RR	O-200-A	Hegi	60X60	C
NIPR	Experimental	TIPSY N. MK II	300	VW	1500	Hoffmann	HO-11-137B85	D
NIPR	Experimental	TIPSY N. MK3	330	ARDEM	4C02	DRG	Z3405	C
NIPR	Experimental	TIPSY N. MK3	330	ARDEM	4C02	Evra	HR 1201	C
RV8	Experimental	Van's RV-10	1225	Lycoming	IO-540-X	Hartzell	C2YR-1BFP/F8068D	C
RV4	Experimental	Van's RV-4	680	Lycoming	O-320-D1A	Prince	68/76 LK P-Tip	D
RV6	Experimental	Van's RV-6	726	Lycoming	O-320-D1A	Sensenich	70CM7S9-0-79	D
RV7	Experimental	Van's RV-7	816	Lycoming	IO-360-M1B	MT	MTV-12-B/183-59B	B
RV7	Experimental	Van's RV-7	815	Lycoming	O-320-D1A	Sensenich	70CM7S9-0-80	D
RV7	Experimental	Van's RV-7A	816.5	Mattituck	TMX IO-360	Hartzell	C2YR-1BFP/F7497-2	D
RV7	Experimental	Van's RV-7A	817	Mattituck	TMX IO-360	Sensenich	72FM8S9-1-85	D
RV8	Experimental	Van's RV-8	816	Lycoming	IO-360-M1B	MT	MTV-12-B-C/C183-59b	D
VEZE	Experimental	VARI EZE	480	Lycoming	O-235-C2C	Hendrickson	H58G74	C
VP1	Experimental	Volksplane VP-1	380	VW	1500H	Hegi	8-74	C
VP1	Experimental	Volksplane VP-1	440	Rotax	582	Woodcomp	SR200	D
V322	Experimental	Votec 322	950	Lycoming	YAEIO-580-EXP	MT	MTV-14-B-C/C195-30d	D
V322	Experimental	Votec 322	950	Lycoming	AEIO-540-C1B	MT	MTV-14-B-C/C195-30d	D
V351	Experimental	Votec 351	870	Lycoming	AEIO-580	MT	MTV-9-B-C/C203-20d	D
EXPR	Experimental	Wheeler Express CT	1454	Lycoming	Lyc IO-360-ES(1)B	MT	MTV-12-D//180-17	D
CH70	Experimental	Zenair CH-701 STOL	545	Rotax	912 UL	Warp Drive	CF68R	C
CH30	Experimental	Zenair TRI-Z	840	Lycoming	O-320-A2B	MT	MT 180R145-3D	C
CH60	Experimental	Zenair Zod 601 HDS	545	Rotax	912 UL	Warp	Warp Drive 68"	D
E300	Extra FZ-Bau	EA 300	950	Lycoming	AEIO-540-L1B5D	MT	MTV-14B-C/C190-17	D
E300	Extra FZ-Bau	EA 300/200	840	Lycoming	AEIO-360-A1E	MT	MTV-12-B-C/C183-17e	B

ICAO Code	Aicraft manufacturer	Aircraft type	MTOW in kg	Engine manufacturer	Engine type	Propeller manufacturer	Propeller type	Noise class
E300	Extra FZ-Bau	EA 300/L	950	Lycoming	AEIO-540-L1B5D	MT	MTV-14B-C/C190-17	D
E400	Extra FZ-Bau	EA 400-500	2130	RR	250-B17F/2	MT	MTV-5-1-D-C-F-R(A)/CFR210-56	D
FA24	Fairchild	24R46A	1162	Ranger	6-440-C5	Hoffmann	HO-33-214-12	C
FA24	Fairchild	24-W-41-A	1162	Warner	R-500-7	Hoffmann	HO-33-218-132	C
FA24	Fairchild	F24R46A	1162	Ranger	6-440-C5	Sensenich	86AB-54	B
F8L	Falco	F8L	750	Lycoming	O-320-A2B	Hartzell	HC-A2XL-1	A
F8L	Falco	F8L	820	Lycoming	O-320-A2A	Hartzell	HC-C2YL-1B	B
F8L	Falco	F8L	820	Lycoming	O-320-A2B	Hartzell	HC-C2YL-1B	A
F8L	Falco	F8L	820	Lycoming	O-320-E1C	Hartzell	HC-C2YL-1BF/F7663A-4	C
SCO1	FFT Gyroflug	SCO1 SPEED C.	680	Lycoming	O-235-P2A	Hoffmann	HO-V113B-LF-LD150+2A	B
SC01	FFT Gyroflug	SCO1B-160	715	Lycoming	O-320-D1A	MT	MTV-6-C/LD152-07	B
AS02	FZW Altenrh	AS 202	999	Lycoming	O-320-E2A	McCauley	1C172/MGM7458	A
AS02	FZW Altenrh	AS 202/15	999	Lycoming	O-320-E2A	McCauley	1C172/MGM7458	C
AS02	FZW Altenrh	AS 202/15,-1	999	Lycoming	O-320-D2A	McCauley	1C172/MGM7460	D
AS02	FZW Altenrh	AS 202/18A	1050	Lycoming	AEIO-360B1F	Hartzell	HC-C2YK-1BF	C
AS02	FZW Altenrh	AS 202/18A1	1050	Lycoming	AEIO-360B1F	Hartzell	HC-C2YK-1BF	C
AS02	FZW Altenrh	AS 202/18A2	1080	Lycoming	AEIO-360-B1F	Hartzell	HC-C2YK-1BF	C
AS02	FZW Altenrh	AS 202/18A3	1080	Lycoming	AEIO-360-B1F	Hartzell	HC-C2YK-1BF	C
AS02	FZW Altenrh	AS 202/18A4	1080	Lycoming	AEIO-360-B1F	Hartzell	HC-C2YK-1BF	C
AS2T	FZW Altenrh	AS 202/32TP	1080	Allison	DDA 250-B17D	Hartzell	HC-BTF-7A/10173N-19R	D
RF3	Fournier	RF 3	350	Rectimo	4AR-1200	Hoffmann	HO-11-133S 70L	D
RF5	Fournier	RF 5B "SPERBER"	700	Limbach	L 2000 EO1	MT	MTV-1-A/L 160-3	C
SUBA	Fuji	FA 200-180	1150	Lycoming	IO-360-B1B	McCauley	B2D34C53-()/()-74E-0	C
SUBA	Fuji	FA 200-180AO	1139	Lycoming	IO-360-A5AD	McCauley	1A170/EFA7658	B
G103	Grob	G 103 C TWIN III SL	710	Rotax	505A	MT	MTV-24-M/158-16	D
G103	Grob	G 103 C TWIN III SL	710	Rotax	505A	Technoflug	KS-1C-158-R-108	D
G109	Grob	G 109 B	850	Grob	2500 D1	Hoffmann	HO-V62-R-L160BT	D
G109	Grob	G 109 B	850	Grob	2500 E1	Hoffmann	HO-V62-R-L160BT	D
G109	Grob	G 109 B	850	Limbach	L 2400 DT1	MT	MTV-1-A/L170-05	B
G115	Grob	G 115 B	920	Lycoming	O-320-D1A	Sensenich	74DM6S5-2-64	D
GA7	Gulfstream	GA-7	1724	Lycoming	O-320-D1D	Hartzell	HC-F2YL-2UF	D
B190	Hawker Beech	1900D	7766	P&W	PT6A-67D	Hartzell	HC-E4A-3()/E10950()K	A
BE20	Hawker Beech	200	5670	P&W	PT6A-42	Hartzell	HC-E4N-3G/D9390SK-1R	D
BE20	Hawker Beech	200, B200	5675	P&W	PT6A-42	Hartzell	HC-D4N-3A/D9383K	D
BE20	Hawker Beech	200, B200 (Raisb)	5670	P&W	PT6A-41	Hartzell	HC-D4N-3A	D
BE20	Hawker Beech	200C (Raisb)	5670	P&W	PT6A-41	Hartzell	HC-D4N-3A/D9383K	D
BE23	Hawker Beech	23	1043	Lycoming	O-320-D2B	Sensenich	M74DM-0-60	C
BE30	Hawker Beech	300	6351	P&W	PT6A-60A	Hartzell	HC-B4MP-3	D
BE30	Hawker Beech	300,B300	6804	P&W	PT6A-60A	Hartzell	HC-B4MP-3C	D
BE30	Hawker Beech	300LW	5670	P&W	PT6A-60A	Hartzell	HC-B4MP-3B/M10476K	D
BE33	Hawker Beech	35-33	1383	Continental	IO-470-J	Hartzell	PHC-L3YF-1R	C
BE33	Hawker Beech	35-A33	1360	Continental	IO-470-K	Hartzell	BHC-92ZF-1D1	B
BE35	Hawker Beech	35-A33	1360	Continental	IO-470-K	Hartzell	PHC-L3YF-1R	C
BE35	Hawker Beech	35-B33	1360	Continental	IO-470-K	Hartzell	BHC-L2YF-1	B
BE33	Hawker Beech	35-C33	1385	Continental	IO-470-K	Hoffmann	HO-V92/195C	C

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BE33	Hawker Beech	35-C33	1383	Continental	IO-470-K	McCauley	2A36C23	B
BE33	Hawker Beech	35-C33	1383	Continental	IO-470-K	McCauley	3AF32C76	C
BE33	Hawker Beech	35-C33	1383	Continental	IO-550-B	MT	MTV-9-D/203-58	D
BE33	Hawker Beech	35-C33A	1497	Continental	IO-520-BA	Hartzell	PHC-C3YF-1RF/F8468(A)-6R	D
BE33	Hawker Beech	35-C33A	1497	Continental	IO-520-B	McCauley	2A36C23	C
BE58	Hawker Beech	58	2495	Continental	IO-550-C	Hartzell	PHC-J3YF-2UF/FC7391D(B,K)	A
BE58	Hawker Beech	58	2494	Continental	IO-550-C	Hartzell	PHC-J3YF-2UF/FC7663-(K)-2R	C
BE58	Hawker Beech	58 P	2812	Continental	TSIO-520-WB	Hartzell	PHC-C3YF-2UF/FC7663DRK	C
BE58	Hawker Beech	58 P	2767	Continental	TSIO-520-L	Hartzell	PHC-J3YF-2F	B
BE58	Hawker Beech	58 P	2812	Continental	TSIO-520-WB	McCauley	3AF32C511	B
BE58	Hawker Beech	58 PA	2719	Continental	TSIO-520-WB	Hartzell	PHC-J3YF-2UF/FC7663DR	C
BE60	Hawker Beech	60	3050	Lycoming	TIO-541-E1A4	Hartzell	HC-F3YR-2UF/FC7479B-2R	B
BE77	Hawker Beech	77	760	Lycoming	O-235-L2C	Sensenich	72CKS12-0-52	C
BE95	Hawker Beech	95	1814	Lycoming	O-360-A1A	Hartzell	HC-92ZK-2()/8447()-12A	D
BE55	Hawker Beech	95-55	2213	Continental	IO-470-L	Hartzell	PHC-C3YF-2UF/FC7663B-2R	C
BE55	Hawker Beech	95-55	2214	Continental	IO-470-L	McCauley	2AF34C55	C
BE55	Hawker Beech	95-B55	2314	Continental	IO-470-L	Hartzell	PHC-C3YF-2	C
BE55	Hawker Beech	95-B55	2268	Continental	IO-470-L	McCauley	2AF34C55	D
BE23	Hawker Beech	A23-19	998	Lycoming	O-320-D2C	Sensenich	74DM6-0-60	C
BE23	Hawker Beech	A23-19	998	Lycoming	O-320-E2C	Sensenich	M74DM-0-58	C
BE35	Hawker Beech	A35	1200	Continental	E-185-8	Hartzell	HC-A2X20-4A1	D
BE36	Hawker Beech	A36	1656	Continental	IO-550-B	Hartzell	PHC-C3YF-1RF/F7663()-2Q	C
BE36	Hawker Beech	A36	1633	Continental	IO-520-BB	McCauley	3A32C76/82NB-2	C
BE36	Hawker Beech	B36TC	1746	Continental	TSIO-520-U	McCauley	3A32C406	B
BE36	Hawker Beech	B36TC	1656	Continental	TSIO-520-UB	McCauley	3A32C406-D	B
BE36	Hawker Beech	B36TC	1746	Continental	TSIO-520-UB	Sensenich	PHC-C3YF-1RF/F8468A-6R	B
BE23	Hawker Beech	C23	1111	Lycoming	O-360-A4J	Sensenich	76EM8S5-0-60	B
BE35	Hawker Beech	C35	1225	Continental	E-185-11	Beech	215-109	C
BE9L	Hawker Beech	C90	4377	P&W	PT6A-21	Hartzell	HC-B3TN-3()/T10173()-8	D
BE9L	Hawker Beech	C90	4581	P&W	PT6A-135A	Hartzell	HC-D4N-3C/D9290(S)(K)	D
BE9L	Hawker Beech	C90A	4581	P&W	PT6A-21	Hartzell	HC-D4N-3C/D9290K	D
BE90	Hawker Beech	C90GTi	4581	P&W	PT6A-135A	Hartzell	HC-E4N-3N/D8990SK	D
BE9T	Hawker Beech	C90GTi	4756	P&W	PT6A-135A	Hartzell	HC-E4N-3N/D8990S(K)	D
BE35	Hawker Beech	D35	1236	Continental	E-185-11	Beech	215-107	C
BE95	Hawker Beech	D95A	1906	Lycoming	IO-360-B1B	Hartzell	HC-92WK-2B	C
BE95	Hawker Beech	E95	1906	Lycoming	IO-360-B1B	Hartzell	HC-92WK-2()/W8447()-12A	C
BE33	Hawker Beech	F33A	1542	Continental	IO-520-BB	Hartzell	PHC-C3YF-1RF	C
BE33	Hawker Beech	F33A	1542	Continental	IO-520-BA	Hartzell	PHC-C3YF-1RF/F7663D-2Q	D
BE33	Hawker Beech	F33A	1542	Continental	IO-520-BA	McCauley	3A32C406-C/82NDB-2	C
BE33	Hawker Beech	F33A	1542	Continental	IO-520-BA	McCauley	3A32C76	C
BE33	Hawker Beech	F33A	1542	Continental	IO-520-BB	McCauley	3A32C76S/82NB-2	C
BE35	Hawker Beech	F35	1250	Continental	E-225-8	Hartzell	HC-A2X20-4A1	D
BE9T	Hawker Beech	F90	4967	P&W	PT6A-135	Hartzell	HC-B4TN-3	D
BE35	Hawker Beech	G35	1350	Continental	E-225-8	Beech	215-107	D
BE58	Hawker Beech	G58	2494	Continental	IO-550-C	Hartzell	PHC-J3YF-2UF/FC7663K-2R	D

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BE35	Hawker Beech	P35	1406	Lycoming	IO-470-N	Hartzell	PHC-L3YF-1RF	C
BE35	Hawker Beech	V35	1633	Continental	IO-550-B-RA	Hartzell	PHC-C3YF-1RF/F8068	C
BE35	Hawker Beech	V35	1542	Continental	TSIO-520-D	McCauley	3A32C76	B
BE35	Hawker Beech	V35B	1542	Continental	IO-520-BA	McCauley	3A32C76	C
BE35	Hawker Beech	V35B	1633	Continental	IO-520-BA	McCauley	3A32C76/82NB-2	C
DV20	Hoffmann	DV 20 KATANA	730	Rotax	912 A3	Hoffmann	HO-V352F-170FQ	D
DIMO	Hoffmann	H 36	770	Limbach	L 2000 EB1.C	Hoffmann	HO-V62-R-160BT	D
DIMO	Hoffmann	H 36	770	Limbach	L 2000 EB 1.AC	Hoffmann	HO-V62-R-160BT	D
DIMO	Hoffmann	H 36 "DIMONA"	770	Sauer	SS 2100 H1S	Hoffmann	HO-V62R/160 BT	B
DIMO	Hoffmann	HK 36 S.-DIMONA	770	Rotax	912 A2	MT	MTV-1-A/170-08	D
IS28	ICA Brasov	IS 28 M2/GR	780	Rotax	912 A3	Hoffmann	HO-V352F-S1/S170FQ	D
JB15	Job	15-180/2	965	Lycoming	O-360-A3A	Sensenich	76EM8S5-0-56	D
D11	Jodel	D112	550	Continental	A-65	Diverse	Festprop.	D
D11	Jodel	D11-2	620	Continental	C-90-14F	McCauley	1B90/CM 7152	D
D11	Jodel	D117	620	Continental	C-90-14F	Evra	D11-28-1B	D
D11	Jodel	D120	650	Continental	C-90-12F	Diverse	Festprop.	D
D140	Jodel	D140	1200	Lycoming	O-360-A1A	Sensenich	M76EM8-0-62	B
D140	Jodel	D140C	1200	Lycoming	O-360-A3A	Sensenich	76EM8-0-58	C
D140	Jodel	D140C	1200	Lycoming	O-360-A3A	Sensenich	76EM8-0-62	D
D140	Jodel	D140C	1200	Lycoming	IO-360-B2F6	Sensenich	76EM8-0-62	D
D140	Jodel	D140R	1200	Lycoming	IO-360-A1D6	McCauley	B2D34C213/90DHA-16	D
DR10	Jodel	DR 1050	750	Continental	O-200-A	Ratier	FH 110-500R	C
DR10	Jodel	DR 1050 M1	780	Continental	O-200-A	Hoffmann	HO-14-170S-123	C
DR22	Jodel	DR 220	780	Continental	O-200-A	Hoffmann	HO 14-170S 123	A
DR22	Jodel	DR 220	780	Continental	O-200-A	Hoffmann	HO 14-170S 123	D
D250	Jodel	DR 250-160	960	Lycoming	O-320-D2A	Hoffmann	HO-23HM-180-155S	B
D250	Jodel	DR 250-160	960	Lycoming	IO-360-B1B	MT	MTV-20-B/180220	D
D250	Jodel	DR 250-160	960	Lycoming	O-320-D2A	Sensenich	74DM6S5-2-64	B
D250	Jodel	DR 250-160	960	Lycoming	O-320-D2A	Sensenich	74DM6S5-2-66	D
D11	Jodel	U2V	700	Continental	O-200-A	Evra	D11-28-4C	A
D11	Jodel	U2V	700	Continental	O-200-A	Hoffmann	HO-14-183-11	A
D11	Jodel	U2V	700	Continental	O-200-A	Schneider	Schneider	C
KL35	Klemm	35	780	Hirth	HM 504-A2	Hoffmann	185-123	A
LAE1	Lange	E1 Antares	660	Lange	EA 42	Lange	LF-P42	D
XL2	Liberty	XL-2	749	Continental	IOF-240-B	MT	MT 175 R 127-2Ca	B
L8	Luscombe	8A	572	Continental	C-90-8F	Evra	N 177S	D
L8	Luscombe	8A	751	Continental	A-65-8F	McCauley	1B90/CM7447	D
L8	Luscombe	8A	540	Continental	A-65-8	Sensenich	76C-46	D
L8	Luscombe	8A	544	Continental	A-65-8F	Universal	74A-50	D
L8	Luscombe	8F	635	Continental	C-90-12F	McCauley	1B90/CM7154	C
AV68	M&D FZ-Bau	AVO 68-R115 "Samb"	750	Rotax	914 F3	Hoffmann	HO-V352F-S2/CS170FQ+10	D
MD3	M.Dätwyler	MD3-160	920	Lycoming	O-320-D2A	Sensenich	74DM6S8-0-62	C
M4	Maule	M-4-210C	1043	Continental	IO-360-A-D	McCauley	D2A34C67	C
M4	Maule	M-4-210C	1043	Continental	IO-360-A	McCauley	D2A34C67	C
M5	Maule	M-5-235C	1134	Lycoming	IO-540-W1A5D	Hartzell	B3D32C414-()/()-82NDA-2	B

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M5	Maule	M-5-235C	1043	Lycoming	O-540-J1A5D	Hartzell	HC-C2YR-1BF/F8468A-6R	D
M5	Maule	M-5-235C	1134	Lycoming	IO-540-W1A5D	Hartzell	HC-C2YR-1BF/F8468A-6R	D
M5	Maule	M-5-235C	1043	Lycoming	O-540-J1A5D	McCauley	B3D32C414-C/G82NDA-4	D
M7	Maule	M-7-235	1134	Lycoming	IO-540-W1A5D	Hartzell	HC-C2YR-1BF/F8468A-6R	D
M7	Maule	M-7-235	1134	Lycoming	IO-540-W1A5D	Hoffmann	HO-V123K-K/193DY	D
M7	Maule	M-7-235	1134	Lycoming	O-540-W1A5D	McCauley	B3D32C414/82NDA-2	D
M7	Maule	M-7-235C	1134	Lycoming	O-540-B4B5	McCauley	B3D32C414-C/G-82NDA-4	D
M7	Maule	MX-7-235	1134	Lycoming	IO-540-W1A5D	Hartzell	HC-C2YR-1BF	D
M7	Maule	MX-7-235	1134	Lycoming	O-540-J1A5D	Hoffmann	HO-V123K/193DY	D
M7	Maule	MX-7-235	1134	Lycoming	IO-540-W1A5D	McCauley	B3D32C414-()/()-82NDA-2	D
M7	Maule	MX-7-235	1134	Lycoming	O-540-J1A5D	McCauley	B3D32C414-C	D
M7	Maule	MX-7-235	1134	Lycoming	O-540-B4B5	McCauley	B3D32C414-C/G-82NDA-4	D
M7	Maule	MXT-7-180A	1089	Lycoming	O-360-C4F	Sensenich	76EM8S5-0-56	B
ME08	Messerschmitt	ME 108 B	1380	Argus	As 10C/3	Schwarz	Me P7 Nabe:9-70-102-A-1	D
FL55	Meteor	FL 55 B	800	Lycoming	O-340-A1A	Hartzell	HC-82XG1B	B
FL55	Meteor	FL 55 CM	900	Lycoming	O-360-A1A	McCauley	2D36C14-B	C
M20P	Mooney	M 20 A	1110	Lycoming	O-360-A1A	McCauley	2D36C14/78KM-4	B
M20P	Mooney	M 20 C	1168	Lycoming	O-360-A1D	Hartzell	HC-C2YK-1B/()7666-2	B
M20P	Mooney	M 20 C	1168	Lycoming	O-360-A1D	McCauley	2D34C53A	B
M20P	Mooney	M 20 E	1168	Lycoming	IO-360-A1A	Hartzell	HC-C2Y(K)-1()/()7666-2	C
M20P	Mooney	M 20 E	1168	Lycoming	IO-360-A1A	Hartzell	HC-C2YR-1BFP/F7497	B
M20P	Mooney	M 20 E	1170	Lycoming	IO-360-A1A	Hoffmann	HO-V123K/180	C
M20P	Mooney	M 20 E	1170	Lycoming	IO-360-A1A	MT	MTV-12-B/180-59b	D
M20P	Mooney	M 20 F	1243	Lycoming	IO-360-A1A	Hartzell	HC-C2YK-1BF/7666-2	C
M20P	Mooney	M 20 F	1243	Lycoming	IO-360-A3B6D	MT	MTV-12-B/180-17	C
M20P	Mooney	M 20 F	1243	Lycoming	IO-360-A1A	MT	MTV-12-B/180-59b	D
M20K	Mooney	M 20 K	1315	Continental	TSIO-360-MB(1)	MT	MTV-12-D/180-17	D
M20T	Mooney	M 20 K	1315	Continental	TSIO-360-GB	Hoffmann	HO-V123F1-180R.R-B	C
M20T	Mooney	M 20 K	1315	Continental	TSIO-360-GB	McCauley	2A34C216/90DHB-16E	C
M20T	Mooney	M 20 K	1315	Continental	TSIO-360-LB1	MT	MTV-12-D/188-53	D
M20T	Mooney	M 20 K	1420	Continental	TSIO-360-SB	MT	MTV-12-D/188-53	D
M20T	Mooney	M 20 K 252TSE	1315	Continental	TSIO-360-MB	McCauley	2A34C221/90DHC-16E	C
M20P	Mooney	M 20 L	1315	Porsche	PFM 3200 NO3	MT	MTV-12-D/188-301	D
M20T	Mooney	M 20 M	1528	Lycoming	TIO-540-AF1A	McCauley	B3D32C417	D
M20T	Mooney	M 20 M	1452	Lycoming	TIO-540-AF1B	McCauley	B3D32C417/82NRD-7	D
M20T	Mooney	M 20 M	1528	Lycoming	TIO-540-AF1A	MT	MTV-14-B/185-59b	D
M20P	Mooney	M 20 R	1528	Continental	IO-550-G()	Hartzell	HC-J3YF-1RF/F7693(B)-2	D
M20P	Mooney	M 20 R	1528	Continental	IO-550-G5B	McCauley	3A32C418/G-82NRC-9	D
M22	Mooney	M 22	1669	Lycoming	TIO-541-A1A	Hartzell	HC-C2YK-1B	B
M20P	Mooney	M20J	1243	Lycoming	IO-360-A3B6D	Hartzell	HC-C2YK-1BF/7666A-3Q	C
M20P	Mooney	M20J	1243	Lycoming	IO-360-A3B6D	Hartzell	HC-C3YR-1RF/F7288	B

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M20P	Mooney	M20J	1243	Lycoming	IO-360-A3B6D	Hoffmann	HO-V123K-180 R	C
M20P	Mooney	M20J	1243	Lycoming	IO-360-A3B6	Hoffmann	HO-V123K-180R	C
M20P	Mooney	M20J	1243	Lycoming	IO-360-A1B6D	Hoffmann	HO-V123K-180R	C
M20P	Mooney	M20J	1243	Lycoming	IO-360-A1B6D	McCauley	B2D34C214	B
M20P	Mooney	M20J	1315	Lycoming	IO-360-A3B6D	McCauley	B2D34C214()/()90DHB-16E	D
M20P	Mooney	M20J	1315	Lycoming	IO-360-A3B6D	MT	MTV-12-B/180-17	D
M20P	Mooney	M20J	1243	Lycoming	IO-360-A3D6D	MT	MTV-12-B/180-17	D
M20P	Mooney	M20J	1243	Lycoming	IO-360-A3D6	MT	MTV-12-B/180-59b	D
Z43	Moravan	Z 143 L	1350	Lycoming	O-540-J3A5	MT	MTV-9B/195-45a	D
Z26	Moravan	Z 326	975	Letecke Zad	Walter Minor 6-III	Moravan	Z 326 641	D
Z26	Moravan	Z 526 F	975	Letecke Zad	Walter M 137 A	Aero	V-503A	B
NAVI	Navion	NA17(L-17A)	1247	Continental	E-185-3	Hartzell	HC-12X20	A
NAVI	Navion	NAVION A (L-17B)	1247	Continental	E-225-8	Hartzell	HC-A2V20-4	B
N120	Norecrin	II	1050	Regnier	4L00	Hoffmann	HO 42HM-200S 160	D
N120	Norecrin	II	1050	Regnier	4L00	Hoffmann	HO-42-200515	D
P750	Pacific	PAC 750XL	3395	P&W	PT6A-34	Hartzell	HC-B3TN-3D/T10282NS+4	A
P750	Pacific Aerospace	PAC 750XL	3395	P&W	PT6A-34	MT	MTV-16-1-E-C-F-R(P)/CFR250-55a	D
OSCR	Partenavia	P 66 B-150	930	Lycoming	O-320-E2A	Sensenich	74DM6S5-2-60	A
P68	Partenavia	P 68 B	1960	Lycoming	IO-360-A1B	Hartzell	HC-C2YK-2CF/FC7666A-4	D
P68	Partenavia	P 68 C	1990	Lycoming	IO-360-A1B6	Hartzell	HC-C2YK-2C()F/FC7666A-4	D
P68	Partenavia	P 68 C	2084	Lycoming	IO-360-A1B6	Hartzell	HC-C2YK-2C()F/FC7666A-4	D
P68	Partenavia	P.68TC "Observer"	2084	Lycoming	TIO-360-C1A6D	Hartzell	HC-C2YK-2C()F/FC7666A-0	C
P68	Partenavia	P.68TC "Observer"	2084	Lycoming	TIO-360-C1A6D	MT	MTV-12-B-C-F/CF188-53	D
P149	Piaggio Aero	FW-149-D	1820	Lycoming	GO-480-B1A6	Piaggio	P1033-G4/D4	D
P180	Piaggio Aero	P.180 AVANTI	5239	P&W	PT6A-66	Hartzell	HC-E5N-3/HE8218	C
P180	Piaggio Aero	P.180 AVANTI II	5489	P&W	PT6A-66B	Hartzell	HC-E5N-3()/HE8218, HC-E5N-3()L/LE8218	A
CP30	Piel	CP 301 A	610	Continental	C-90-14F	Hoffmann	HO 14-183 110	B
CP30	Piel	CP 301 A	610	Continental	C-90-14F	MT	MT 178R 120-2C	C
CP30	Piel	CP 301 E	610	Continental	O-200-A	McCauley	1A100/MCM6758	C
PP2	Pilatus	P2-05/06	1920	Walter	AS-410-A2	Argus	L-22	D
PP3	Pilatus	P3-03,-05	1575	Lycoming	GO-435-C2A	Hartzell	HC-83V20-2C1	D
PC12	Pilatus	PC-12/45	4500	P&W	PT6A-67B	Hartzell	HC-E4A-3D/E10477K	D
PC12	Pilatus	PC-12/47	4740	P&W	PT6A-67B	Hartzell	HC-E4A-3D/E10477K	D
PC12	Pilatus	PC-12/47	4740	P&W	PT6A-67P	MT	MTV-27-1-N-C-F-R(P)/CFR260-65a	D
PC12	Pilatus	PC-12/47E	4740	P&W	PT6A-67P	Hartzell	HC-E4A-3D/E10477SK	D
PC12	Pilatus	PC-12/47E	4740	P&W	PT6A-67P	MT	MTV-27-1-N-C-F-R(P)/CFR260-65a	D
PC21	Pilatus	PC-21	3600	P&W	PT6A-68B	Hartzell	HC-E5A-2/E9193B	D
PC21	Pilatus	PC-21	3100	P&W	PT6A-68B	Hartzell	HC-E5A-2/E9193B	D
PC6T	Pilatus	PC-6/B1-H2	2200	P&W	PT6A-20B	Hartzell	HC-B3TN-3C/T10173C	D
PC6T	Pilatus	PC-6/B1-H2;-B2-H2	2200	P&W	PT6A-20;-27	Hartzell	HC-D4N-3PX1/D9511FX	D
PC6T	Pilatus	PC-6/B2-H2	2200	P&W	PT6A-27	Hartzell	HC-B3TN-3D	C
PC6T	Pilatus	PC-6/B2-H4	2800	P&W	PT6A-27	Hartzell	HC-B3TN-3D	D
PC6T	Pilatus	PC-6/B2-H4	2800	P&W	PT6A-27	Hartzell	HC-D4N-3PX1/D9511FX	D
PC7	Pilatus	PC-7	2700	P&W	PT6A-25A	Hartzell	HC-B3TN-2	B

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PC7	Pilatus	PC-7	1900	P&W	PT6A-25A	Hartzell	HC-B3TN-2	D
PC7	Pilatus	PC-7 MKII	2850	P&W	PT6A-25C	Hartzell	HC-D4N-2A	D
PC7	Pilatus	PC-7 MKII	2700	P&W	PT6A-25C	Hartzell	HC-D4N-2A	D
PC9	Pilatus	PC-9 (M)	3200	P&W	PT6A-62	Hartzell	HC-D4N-2A/D9512A	C
PC9	Pilatus	PC-9 (M)	2350	P&W	PT6A-62	Hartzell	HC-D4N-2A/D9512A	D
PC9	Pilatus	PC-9*	2200	P&W	PT6A-62	Hartzell	HC-D4N-2A	D
J3	Piper	J3C	580	Continental	C-90-12F	MT	MT 183R100-2C	C
PA12	Piper	PA-12	795	Lycoming	O-290-D2	McCauley	1A170/DM 7445	C
PA12	Piper	PA-12	795	Lycoming	O-290-D2	Sensenich	M74DM	C
PA16	Piper	PA-16	750	Lycoming	O-290-D2	Sensenich	M74DM52	D
PA18	Piper	PA-18	680	Continental	C-90-8F	McCauley	1A101/DCM6948	D
PA18	Piper	PA-18	680	Continental	C-90-8F	Sensenich	M76-AK	C
PA18	Piper	PA-18-125	680	Lycoming	O-290-D	Sensenich	74DM6-0-52	C
PA18	Piper	PA-18-135	680	Lycoming	O-290-D2	Sensenich	74DM6-0-52	C
PA18	Piper	PA-18-150	794	Lycoming	O-320-A2B	Sensenich	(M)74DM6-()-54	D
PA18	Piper	PA-18-150	794	Lycoming	O-320-A2B	Sensenich	(M)74DM6-()-56	D
PA18	Piper	PA-18-150	795	Lycoming	O-320-A2B	Sensenich	74DM6-0-50	C
PA18	Piper	PA-18-150	794	Lycoming	O-320-A2B	Sensenich	74DM6-0-56	D
PA18	Piper	PA-18-150	794	Lycoming	O-320-A2B	Sensenich	74DM6-0-60	C
PA18	Piper	PA-18-150	794	Lycoming	O-320-A2A	Sensenich	M74 DM-0-52	D
PA18	Piper	PA-18-150	794	Lycoming	O-320-A2B	Sensenich	M74DM6-0-56	D
PA18	Piper	PA-18-180	794	Lycoming	O-360-A2A	Sensenich	76EM8S5-0-55	C
PA19	Piper	PA-19	680	Continental	C-90-8F	Sensenich	M76AK2	C
PA22	Piper	PA-22-108	750	Lycoming	O-235-C1B	Sensenich	M76-AM2	B
PA22	Piper	PA-22-135	885	Lycoming	O-290-D2	Sensenich	M74DM	D
PA22	Piper	PA-22-150	907	Lycoming	O-320-A	Sensenich	M74DM6-0-56	B
PA23	Piper	PA-23-160	1724	Lycoming	O-320-B1A	Hartzell	HC-82XG-2B	D
PA24	Piper	PA-24-250	1361	Lycoming	O-540-A1D5	Hartzell	HC-A2VK-1/V8433(N)-7	D
P28A	Piper	PA-28-140	975	Lycoming	O-320-E2A	Sensenich	74DM6-0-58	B
P28A	Piper	PA-28-140	975	Lycoming	O-320-D3G	Sensenich	74DM6-0-60	D
P28A	Piper	PA-28-140	975	Lycoming	O-320-E2A	Sensenich	M74DM6-0-58	B
P28A	Piper	PA-28-140	975	Lycoming	O-320-E2A	Sensenich	M74DM6-0-60	B
P28A	Piper	PA-28-161	1055	Lycoming	O-320-D3G	Sensenich	74DM6-0-60	B
P28A	Piper	PA-28-180	1090	Lycoming	O-360-A4A	Sensenich	76EM8S5-0-60	C
P28A	Piper	PA-28-181	1157	Lycoming	O-360-A4M	Sensenich	76EM8S14-0-62	C
P28A	Piper	PA-28-181	1157	Lycoming	O-360-A4M	Sensenich	76EM8S5-0-62	B
P28B	Piper	PA-28-235	1362	Lycoming	O-540-B4B5	Hartzell	HC-C2YK-1B/8468A-4	C
P28B	Piper	PA-28-236	1361	Lycoming	O-540-J3A5D	Hartzell	HC-F2YR-1()F/F8468A-4R	D
P28B	Piper	PA-28-236	1361	Lycoming	O-540-J3A5D	Hartzell	HC-F3YR-1ARF/F7693F	D
P28R	Piper	PA-28R-180	1134	Lycoming	IO-360-B1E	Hartzell	HC-C2YK-1/7666A-0	B
P28R	Piper	PA-28R-180	1135	Lycoming	IO-360-B1E	McCauley	B3D36C424/74SA	B
P28R	Piper	PA-28R-200	1179	Lycoming	IO-360-C1C6	McCauley	C3D36C415/82NGA-8	B
P28R	Piper	PA-28R-200	1179	Lycoming	IO-360-C1C	McCauley	C3D36C415/82NGA-8	B
P28R	Piper	PA-28R-201T	1315	Continental	TSIO-360-FB	Hartzell	BHC-C2YF-1()F/F8459A-8R	D
P28R	Piper	PA-28R-201T	1315	Continental	TSIO-360-F	Hartzell	BHC-C2YF-1/F8459A-8R	D

ICAO Code	Aircraft manufacturer	Aircraft type	MTOW in kg	Engine manufacturer	Engine type	Propeller manufacturer	Propeller type	Noise class
P28R	Piper	PA-28R-201T	1315	Teledyne	TSIO-360-FB1	Hartzell	BHC-C2YF-1BF/F8459A-8R	D
P28T	Piper	PA-28RT-201	1247	Lycoming	IO-360-C1C6	McCauley	2D34C215/90DJA-14E	B
P28U	Piper	PA-28RT-201T	1315	Continental	TSIO-360-FB	Hartzell	BHC-C2YF-1()F/F8459A-8R	D
PA30	Piper	PA-30	1633	Lycoming	IO-320-B1A	Hartzell	HC-E2YL-2B	D
PA31	Piper	PA-31	2948	Lycoming	TIO-540-A2C	Hartzell	HC-E3YR-2()/FC8468()-6R	D
P31T	Piper	PA-31T	4082	P&W	PT6A-28	Hartzell	HC-B3TN-3B/T10173B-8	D
P31T	Piper	PA-31T	4082	P&W	PT6A-135A	MT	MTV-27-1-E-C-F-R(P)/CFR210-58d	D
P31T	Piper	PA-31T	4082	P&W	PT6A-135	MT	MTV-27-1-E-C-F-R(P)/CFR210-58d	D
P31T	Piper	PA-31T1	3946	P&W	PT6A-11	Hartzell	HC-B3TN-3B	D
P31T	Piper	PA-31T2	4297	P&W	PT6A-135	Hartzell	HC-B3TN-3B/T10178B-8R	D
PA32	Piper	PA-32-300	1542	Lycoming	IO-540-K1A5	Hartzell	HC-C2YK-1()/8475(D)-4	B
PA32	Piper	PA-32-301T	1633	Lycoming	TIO-540-S1AD	Hartzell	HC-E2YR-1()F	D
P32R	Piper	PA-32R-301	1633	Lycoming	IO-540-K1G5D	Hartzell	HC-C3YR-1()F/F7663R-0	B
P32R	Piper	PA-32R-301	1633	Lycoming	IO-540-K1G5D	Hartzell	HC-I3YR-1BF/F7663DR	C
P32R	Piper	PA-32R-301T	1633	Lycoming	TIO-540-S1AD	Hartzell	HC-E3YR-1()F/F7673DR-0	D
P32R	Piper	PA-32R-301T	1633	Lycoming	TIO-540-AH1A	Hartzell	HC-I3YR-1(R)F/F7663DR()-0	D
P32T	Piper	PA-32RT-300T	1633	Lycoming	TIO-540-S1AD	Hartzell	HC-E2YR-1()F/F8477-4	C
PA34	Piper	PA-34-200T	1999	Continental	TSIO-360-E	McCauley	3AF34C502/503	D
PA38	Piper	PA-38-112	758	Lycoming	O-235-L2C	Sensenich	72CK-0-56	C
PA46	Piper	PA-46-310P	1860	Continental	TSIO-520-BE	Hartzell	BHC-C2YF-1BF	D
PA46	Piper	PA-46-350P	1950	P&W	PT6A-34	Hartzell	HC-E4N-3/E8501B-3.5	D
PA46	Piper	PA-46-350P	1950	Lycoming	TIO-540-AE2A	Hartzell	HC-I2YR-1BF/F8074()	D
PA46	Piper	PA-46-350P	1969	P&W	PT6A-35	MT	MTV-16-1-E-C-F-R(P)/CFR206-58a	D
PA46	Piper	PA-46-350P	1950	P&W	PT6A-35	MT	MTV-16-1-E-C-F-R(P)/CFR206-58a	D
PA46	Piper	PA-46-500TP	2200	P&W	PT6A-42A	Hartzell	HC-E4N-3Q/E8501B-3.5	D
PA46	Piper	PA-46-500TP	2310	P&W	PT6A-42A	Hartzell	HC-E4N-3Q/E8501B-3.5	D
PISI	Pipistrel	Sinus	472.5	Rotax	912 UL	Pipistrel	Vario	D
PTS2	Pitts	S2S	714	Lycoming	AEIO-540D4A5	Hartzell	HC-C2YK-4	B
PICO	Procaer	F 15	1030	Lycoming	O-320-B2A	Hartzell	HC-82XL-1D	B
PICO	Procaer	F 15 B	1120	Lycoming	O-360-A1A	Hartzell	HC-92ZK-8D	C
RC3	Republic Av	RC-3 (Seabee)	1429	Franklin	6A8-215-9BF	Hartzell	HC-D2MV20-3	B
DR22	Robin	DR 221	840	Lycoming	O-235-C2A	Evra	88-75-34-F	D
DR22	Robin	DR 221	840	Lycoming	O-235-C2A	McCauley	MCC 1A105/BCM 7056	D
DR30	Robin	DR 340	1000	Lycoming	O-360-E2A	Sensenich	74DM6S5-2-64	B
DR40	Robin	DR 400/120D	900	Lycoming	O-235-L2A	McCauley	1A105/BCM7060	D
DR40	Robin	DR 400/120D	900	Lycoming	O-235-L2A	Sensenich	72CKS6-0-56	C
DR40	Robin	DR 400/140B	1000	Lycoming	O-320-D2A	Sensenich	74DM6S5-2-64	D
DR40	Robin	DR 400/180	1100	Lycoming	O-360-A3A	Sensenich	76EM8S5-0-64	D
DR40	Robin	DR 400/180	1100	Lycoming	O-360-A1P	Sensenich	76EM8S5-0-64	D
DR40	Robin	DR 400/180R	1000	Lycoming	O-360-A1P	Sensenich	76EM8S5-0-58	C
DR40	Robin	DR 400/200R	1100	Lycoming	IO-360-A1B6	Hartzell	HC-C2YK-1BF/7666A-2	D
DR40	Robin	DR 400/500	1150	Lycoming	IO-360-A1B6	Hartzell	HC-C2YK-1BF/F7666A-2	C
DR40	Robin	DR 400/RP	1100	Lycoming	O-540-J3A5	Hoffmann	HO-V123K-K/200CQ	D
HR10	Robin	HR 100/200	1200	Lycoming	IO-360-A1D6	Hartzell	HC-F2YR-1/7666A-2	C

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HR10	Robin	HR 100/210 D	1250	Continental	IO-360-D	Hartzell	BHC-J2YF-1BF/7663-2.4R	C
HR10	Robin	HR 100/250TR	1400	Lycoming	IO-540-C4B5	Hartzell	HC-C2YK-1BF	D
HR20	Robin	HR 200/120	780	Lycoming	O-235-J2A	McCauley	1A135/JCM7154	A
HR20	Robin	HR 200/160	800	Lycoming	O-320-D2A	Sensenich	74DM6S5-2-66	D
R200	Robin	R 2160	800	Lycoming	O-320-D	Sensenich	74DM6S5-2-64	A
R300	Robin	R 3000/160	1150	Lycoming	O-360-A3A	Sensenich	76EM8S5-0-64	D
R90R	Ruschmeyer	R 90-230 RG	1350	Lycoming	IO-540 C4D5	MT	MTV-14B/190-17	D
KZ7	S.A.I.	KZ VII	860	Continental	O-300-A	Hoffmann	HO-30-190-12	A
SB91	Saab	91 D	1205	Lycoming	O-360-A1A	McCauley	2D36C14/78KM-4	A
SF25	Scheibe	SF 25 B	555	Sauer	SE 1800 E1S	MT	MT 150L-90-1A	D
SF28	Scheibe	SF 28 A	610	Limbach	L 1700 EA-1	Hoffmann	HO-V62/L150	C
ARCP	Schempp-Hirth	Arcus M	800	Solo	2625-02i	Technoflug	KS-1G-160 R-120	D
DISC	Schempp-Hirth	DISCUS 2cT	565	Solo	2350	Oeler	OE-FL 5.83/83a5, v92	D
DISC	Schempp-Hirth	DISCUS bT	450	Solo	2350	Oeler	OE-FL 5.83/83	D
NIMB	Schempp-Hirth	NIMBUS-4DM	820	Rotax	535C	Technoflug	KS1G-160-R-98	D
NIMB	Schempp-Hirth	NIMBUS-4M	800	Rotax	505A	Technoflug	KS1C-158-R-108	D
NIMB	Schempp-Hirth	NIMBUS-4M	800	Solo	2625-02	Technoflug	KS-1G-160 R-110	D
VENT	Schempp-Hirth	VENTUS bT	430	Solo	2350	Oeler	OE-FL 5.83/83	D
AS25	Schleicher	ASH 25E	750	Rotax	275	MT	MT 130 L95-1B	D
AS25	Schleicher	ASH 25M	790	Mid-West	MWAE50R	Technoflug	KS-1C-154-R110	D
AS26	Schleicher	ASH 26E	525	Mid-West	MWAE50R	Schleicher	ASF1-1/R153-92-N1	D
AS26	Schleicher	ASH 26E	526	Mid-West	MWAE50R	Technoflug	KS 1C 154 R 108	D
AS31	Schleicher	ASH 31 Mi	700	Austro Eng.	IAE 50R-AA	Schleicher	AS2F1-1/R153-92-N1	D
AS14	Schleicher	ASK 14	360	Hirth	F10K 1A	Hoffmann	HO-V42-48-02	D
AS16	Schleicher	ASK 16	750	Limbach	L 2000 EB1	Hoffmann	HO-V62-R-160-BT	D
AS22	Schleicher	ASW 22BE	810	Rotax	505A	Karais	KS-1C-158-R-108	D
AS24	Schleicher	ASW 24 TOP	415	F+E	F+E TOP (SC430)	Fischer	F+E Top 1.3m	D
AS27	Schleicher	ASW 27-18E	600	Solo	2350	Schleicher	AS2F1-2/L120-43-N2	C
AS28	Schleicher	ASW 28-18E	575	Solo	2350	Schleicher	AS2F1-2/L120-43N2	C
S900	Sipa	903	670	Continental	C-90-14F	Evra	D11-28-1B	C
HUSK	Sky Int	Aviat Husky A-1	816	Lycoming	O-360-A1P	Hartzell	HC-C2YK-1BF/F7666A-4	D
HUSK	Sky Int	Aviat Husky A-1	816	Lycoming	O-360-C1G	Hartzell	HC-C2YK-1BF/F7666A-4	D
HUSK	Sky Int	Aviat Husky A-1	816	Lycoming	O-360-A1P	MT	MTV-15-B/210-58	C
HUSK	Sky Int	Aviat Husky A-1B	907	Lycoming	O-360-A1P	Hartzell	HC-C2YK-1BF/F7666A	D
FOX	Skyfox Av	CA-25N	520	BRP - Rotax	Rotax 912 A	Allsize	CHP1-1	B
SV4	SNCAN	STAMPE SV4A	770	Renault	4P05	Hoffmann	HO-34HM-L98S	A
MS23	Socata	235 E-D	1200	Lycoming	O-540-B4B5	Hartzell	HC-C2YK-1BF/8468A-4	B
MS31	Socata	MS 317	1100	Continental	W670-6A	Evra	120-55-B7	C
F156	Socata	MS 505	1590	Jacobs	R-755A2	Evra	130-38-29	D
F156	Socata	MS 505	1590	Lycoming	O-540-E4B5	Hartzell	HC-C2YK-1BF	C

ICAO Code	Aicraft manufacturer	Aircraft type	MTOW in kg	Engine manufacturer	Engine type	Propeller manufacturer	Propeller type	Noise class
MS73	Socata	MS 733	1800	Potez	6D02	Hartzell	HC-B3Z22-7	C
RALL	Socata	MS 883	825	Lycoming	O-235-C2A	Sensenich	76AKS6-2-44	C
RALL	Socata	MS 893A	1050	Lycoming	O-360-A1A	Hartzell	HC-C2YK-1BF/7666-A2	B
TOBA	Socata	TB 10	1150	Lycoming	O-360-A1AD	Hartzell	HC-C2YR-1BF/F7666A-2	C
TRIN	Socata	TB 20	1335	Lycoming	IO-540-C4D5	Hartzell	HC-C2YK-1BF/F8477-4	D
TOBA	Socata	TB 200	1150	Lycoming	IO-360-A1B6	Hartzell	HC-C2YK-1BF/F7666A-2	D
TBM7	Socata	TBM 700	2984	P&W	PT6A-64	Hartzell	HC-E4N-3/E9083 S(K)	D
TBM7	Socata	TBM 700 C2	3354	P&W	PT6A-64	Hartzell	HC-E4N-3/E9083 S(K)	D
TBM7	Socata	TBM 700 N	3354	P&W	PT6A-66D	Hartzell	HC-E4N-3/E9083S (K)	D
RS18	Sportavia	RS 180	1100	Lycoming	O-360-A3A	Hoffmann	HO-27HM-180-138	D
S10S	Stemme	S10	850	Limbach	L 2400 EB1	Stemme	10 AP-N	D
S10S	Stemme	S10-V	850	Limbach	L 2400 EB 1.AD	Stemme	10 AP-F	D
S10S	Stemme	S10-V	850	Limbach	L 2400 EB 1.AD	Stemme	10 AP-V	B
S10S	Stemme	S10-VT	850	Rotax	914F2/S1	Stemme	11AP-V/20038/0796	D
TBEE	STOL Aircraft.	UC-1 TWIN BEE	1724	Lycoming	IO-360-B1D	Hartzell	HC-C2YK-2RB/7666A-2	D
GY20	Sud Aviation	GY-20	485	Continental	A-65	Merville	693 B	C
AA1	True Flight	AA-1A	680	Lycoming	O-235-C2C	McCauley	1A105/SCM7154	C
AA5	True Flight	AA-5A	999	Lycoming	O-320-E2G	McCauley	1C172/(S)BTM7359	B
AA5	True Flight	AA-5B	1090	Lycoming	O-360-A4K	McCauley	1A170/FFA7563	B
AA5	True Flight	AA-5B	1089	Lycoming	O-360-A4K	Sensenich	76EM8S10-0-63	C
PKAN	Uetz	U3M PELIKAN	870	Lycoming	O-290-D2B	Sensenich	M74DM56	B
PKAN	Uetz	U4M PELIKAN	999	Lycoming	IO-320-B1A	Hoffmann	HO-V72L2/180DU	A
PKAN	Uetz	U4M PELIKAN	1000	Lycoming	O-320-A2B	McCauley	1C172/MGM7460	A
KIWI	Valentin	KIWI	385	F+E	F+E TOP (SC430)	Fischer	F+E Top 1.3m	D
VTOR	Vulcanair	AP68TP 600	3000	Allison	250-B17C	Hartzell	HC-B3TF-7A/T10173FN-21R	D
WACF	Waco Classic.	YMF Model F5C	1338	Jacobs	R755-B2M	Sensenich	W96JB-4-68	C
WA42	Wassmer	4/21	1410	Lycoming	IO-540-C4B5	Hartzell	HC-C2YK-1BF/8477B-4	D
WA40	Wassmer	WA 40	1200	Lycoming	O-360-A1A	McCauley	2D36C14	D
YK55	Yakovlev	YAK-55M	965	Vedeneyev	M-14P	MT	MTV-9K-C/CL250-29	C

This listing contains basic aircraft types. Aircraft which have been re-equipped to reduce noise can be classified, when evidence is shown, into a lower noise class. For Swiss aircraft, the Swiss Aircraft Register classification is applicable.

Diese Liste enthält Basis-Flugzeugtypen. Flugzeuge, welche lärmmindernd umgerüstet worden sind, können auf Nachweis hin in eine tiefere Lärmklasse eingestuft werden. Für schweizerische Luftfahrzeuge ist die Klassierung im Luftfahrzeugregister massgebend.

Cette liste contient les types de base d'aéronefs. Les aéronefs qui ont été réadaptés pour diminuer le bruit peuvent être classés, après justification, dans une catégorie de bruit inférieure. Pour les aéronefs suisses, la classification du Registre suisse des aéronefs est applicable.

Questa lista elenca i tipi di base degli aeromobili. Gli aeromobili che sono stati rimodernati per diminuire il rumore possono venire classificati, secondo la giustificazione, in una categoria di rumore inferiore. Per gli aeromobili svizzeri è applicabile la classificazione della matricola svizzera degli aeromobili.

1. HELIKOPTERFLUGPLÄTZE 1. HELIPORTS 1. ELIPORTI 1. HELIPORTS

1. Äussere Merkmale, Befeuerung, Bodendienste und lärmempfindliche Gebiete → HEL-Karte und/oder AD INFO
Benützungseinschränkungen → Betriebsreglement und/oder AD INFO

Caractéristiques physiques, feux, services au sol et zones sensibles au bruit → Carte HEL et/ou AD INFO
Restrictions d'utilisation → Règlement d'exploitation et/ou AD INFO

Caratteristiche fisiche, luci, servizi a terra e zone sensibili al rumore → Carta HEL e/o AD INFO
Restrizioni d'utilizzazione → Norme OPS dell'aerodromo e/o AD INFO

Physical characteristics, lights, ground services and noise-sensitive areas → HEL chart and/or AD INFO
Restrictions of use → AD OPS regulations and/or AD INFO

2. HEL AD „R" = Ausser für Rettungseinsätze ist die Benützung des Flugfeldes durch Dritte grundsätzlich untersagt

L'utilisation de l'héliport par des tiers est interdite par principe à l'exception des vols de sauvetage

Ad'eccezione dei voli SAR, per principio l'uso dell'eliporto è vietato per i terzi

Except for rescue flights the use of the heliport by third persons is basically prohibited

Name Nom Nome Ortskennung / Indicateur Indicatore / Indicator	Lage Situation Ubicazione Location	ELEV m	Halter und Betriebszeiten Exploitant et heures d'ouverture Esercente e orario di servizio Operator and AD operating hours
a	b COORD WGS 84	c	d
BALZERS/FL **LSXB** Privat/Private AD **PPR**	47 04 05 N 009 28 52 E 2 km W Balzers/FL	*483*	Heliport Balzers AG Schifflände 2 **FL-9496 Balzers** TEL +423 380 03 03 FAX +423 380 03 04 e-mail: info@lsxb.li SUN+HOL: eingeschränkter Flugbetrieb/ restricted flight OPS
COLLOMBEY-MURAZ „R" **LSEC** Privé/Private AD Karte/Chart → Bex LSGB VAC	46 16 07 N 006 57 35 E	*391*	Air Glaciers S.A. Trans-Heli S.A. Rue Pré du Pont **1868 Collombey** TEL +41 (0) 24 473 70 70 FAX +41 (0) 24 73 70 71 e-mail: agcollombey@bluewin.ch HJ MAX 0800-2000 LT

Name Nom Nome Ortskennung / Indicateur Indicatore / Indicator	Lage Situation Ubicazione Location	ELEV m	Halter und Betriebszeiten Exploitant et heures d'ouverture Esercente e orario di servizio Operator and AD operating hours
a	b COORD WGS 84	c	d
ERSTFELD „R“ **LSXE** Privat/Private AD	46 50 01 N 008 38 20 E	*459*	Haltergemeinschaft Swiss Helicopter Group AG / Schweizerische Rettungsflugwacht Rega Swiss Helikopter AG **6472 Erstfeld** (Flugfeldleitung) TEL +41 (0) 41 882 00 50 Schweizerische Rettungsflugwacht Rega **6472 Erstfeld** TEL +41 (0) 41 882 03 33
GAMPEL „R“ **LSEG** Privat/Private AD **PPR**	46 18 36 N 007 43 30 E	*626*	Air Zermatt AG **3920 Zermatt** TEL +41 (0) 27 570 70 70 e-Mail: raron@air-zermatt.ch
GOSSAU „R“ **LSXO** Privat/Private AD	47 24 20 N 009 17 25 E	*657*	REGA Schweizerische Rettungsflugwacht **8058 Zürich** TEL +41 (0) 71 313 99 33 FAX +41 (0) 71 313 99 34
GSTEIGWILER **LSXG** Privat/Private AD **PPR**	46 38 53 N 007 52 39 E	*686*	Swiss Helicopter AG **3814 Gsteigwiler** TEL +41 (0) 33 828 90 00 HJ MAX 0700-1900 LT SUN+HOL CLSD
HALTIKON **LSXN** Privat/Private AD **PPR**	47 05 25 N 008 24 53 E	*540*	Heliswiss International AG **6403 Küssnacht a.R.** TEL +41 (0) 41 854 32 23 FAX +41 (0) 41 854 32 22
HOLZIKEN “R” **LSXH** Privat/Private AD **PPR**	47 18 51 N 008 01 34 E	*465*	Rose Helicopter AG Bändlistrasse 6 **5043 Holziken** TEL +41 (0) 62 721 44 44 FAX +41 (0) 62 721 44 66 e-Mail: info@roseheli.ch Internet: http://www.roseheli.com
INTERLAKEN „R” **LSXI** Privat/Private AD	46 40 15 N 007 52 31 E	*579*	Rega Schweizerische Rettungsflugwacht Bönigstrasse 17 **3812 Wilderswil** TEL +41 (0) 33 828 90 30 FAX +41 (0) 33 828 90 39
LAUTERBRUNNEN **LSXL** Privat/Private AD **PPR**	46 35 08 N 007 54 48 E 2 km SSE Lauterbrunnen	*800*	Gemeinde Lauterbrunnen Heliport **3822 Lauterbrunnen** TEL +41 (0) 33 856 05 60 e-mail: agl@air-glaciers.ch HJ

Name Nom Nome Ortskennung / Indicateur Indicatore / Indicator	Lage Situation Ubicazione Location	ELEV m	Halter und Betriebszeiten Exploitant et heures d'ouverture Esercente e orario di servizio Operator and AD operating hours
a	b COORD WGS 84	c	d
LEYSIN **LSEY** **PPR** Privé/Private AD	46 20 29 N 007 01 27 E	*1234*	Héli-Chablais SA **1854 Leysin** TEL +41 (0) 24 494 34 34 +41 (0) 24 473 70 70 e-mail: leysin@air-glaciers.ch HJ MAX 0600-2000 LT SUN+HOL MAX 0800-2000 LT
PFAFFNAU „R“ **LSXP** Privat/Private AD	47 14 07 N 007 54 36 E	*541*	Heli Gotthard AG Brunnmatt **6264 Pfaffnau** TEL +41 (0) 62 754 01 01 FAX +41 (0) 62 754 01 02
RARON **LSER** Privat/Private AD **PPR**	46 18 05 N 007 49 58 E	*639*	Air Zermatt AG **3920 Zermatt** TEL +41 (0) 27 570 70 70 e-Mail: raron@air-zermatt.ch 0700 LT-SS: für betriebseigene HEL / for operator-owned HEL 0800-1200, 1330-1800 LT: für auswärtige HEL / for visiting HEL
SAN VITTORE **LSXV** Privato/Private AD **PPR**	46 13 56 N 009 05 23E	*261*	Heli Rezia SA **6775 Ambri** TEL +41 (0) 91 873 66 66 FAX +41 (0) 91 873 66 69 **6534 San Vittore** TEL +41 (0) 91 829 27 27 FAX +41 (0) 91 829 36 13 HJ MAX 0730-2000 LT
SCHATTENHALB **LSXC** Privat/Private AD **PPR**	46 42 45 N 008 12 09 E	*800*	Berner Oberländer Helikopter AG BOHAG **3814 Gsteigwiler** TEL +41 (0) 33 971 88 11 FAX +41 (0) 33 971 88 10 No restrictions for SAR FLT
SCHINDELLEGI **LSXS** Privat/Private AD **PPR**	47 10 13 N 008 42 51 E	*792*	FUCHS-Helikopter **8834 Schindellegi** TEL +41 (0) 44 787 05 05 FAX +41 (0) 44 787 05 19
TAVANASA **LSXA** Privat/Private AD **PPR**	46 45 38 N 009 05 34 E	*750*	Air Grischa Helikopter AG Heliport **7204 Untervaz** TEL +41 (0) 81 322 57 57 FAX +41 (0) 81 322 50 00 **7162 Tavanasa** TEL +41 (0) 81 936 22 22 FAX +41 (0) 81 936 22 21
TROGEN „R“ **LSXT** Privat/Private AD **PPR**	47 24 32 N 009 28 23 E	*811*	Helimission **9043 Trogen** TEL +41 (0) 71 343 71 71 FAX +41 (0) 71 343 71 70

Name Nom Nome Ortskennung / Indicateur Indicatore / Indicator	Lage Situation Ubicazione Location	ELEV m	Halter und Betriebszeiten Exploitant et heures d'ouverture Esercente e orario di servizio Operator and AD operating hours
a	b COORD WGS 84	c	d
UNTERVAZ **LSXU** Privat/Private AD **PPR**	46 54 44 N 009 33 04 E 2,5 km SSW Zizers	*539*	Air Grischa Helikopter AG **7204 Untervaz** TEL +41 (0) 81 322 57 57/58 FAX +41 (0) 81 322 50 00 e-mail: untervaz@swisshelicopter.ch Internet: www.swisshelicopter.ch MON-SAT: HJ MAX 0630 LT - HRH SUN+HOL: HJ MAX 0730 LT - HRH
WÜRENLINGEN „R" **LSXW** Privat/Private AD	47 32 14 N 008 14 41 E	*370*	GRANELLA AG **5303 Würenlingen** TEL +41 (0) 79 357 36 57
ZERMATT **LSEZ** Privat/Private AD **PPR**	46 01 46 N 007 45 12 E 600 m NNE Bhf/stn Zermatt	*1619*	Air Zermatt AG **3920 Zermatt** TEL +41 (0) 27 570 70 70 e-mail: zermatt@air-zermatt.ch Internet: www.air-zermatt.ch 0700 LT-SS: für betriebseigene HEL / for operator-owned HEL 0800-1200, 1330-1800 LT: für auswärtige HEL / for visiting HEL

1. WINTERFLUGPLÄTZE
1. AERODROMI INVERNALI
1. AERODROMES D'HIVER
1. WINTER AERODROMES

Benützungsbedingungen:

1) Für jede Landung und für Anflüge ohne Landung ist im Einzelfall vorher die Erlaubnis des Flugplatzhalters einzuholen.
2) Der Pilot muss Träger der Erweiterung zum Führerausweis für Landungen im Gebirge sein.
3) Leistung und Ausrüstung des Luftfahrzeuges müssen den Anforderungen des Geländes entsprechen.
4) Die Landeflächen können nur bei genügender Schneedecke oder bei genügend tragfähiger Eisfläche angeflogen werden.

Conditions d'utilisation:

1) Pour l'atterrissage et pour les approches sans atterrissage, la permission de l'exploitant de l'aérodrome doit être demandée au préalable dans chaque cas.
2) Le pilot doit être titulaire d'une licence étendue aux atterrissages en montagne.
3) La performance et l'équipement de l'aéronef doivent correspondre aux exigences du terrain.
4) Aires praticables seulement lorsque la couche de neige ou la résistance de la surface de glace sont suffisantes.

Condizioni d'uso:

1) Per ogni atterraggio e per ogni volo di avvicinamento senza atterraggio è necessario in ogni singolo caso il consenso anticipato dell'esercente dell'aerodromo.
2) Il pilota deve possedere l'estensione della licenza per l'atterraggio in montagna.
3) Prestazione ed equipaggiamento degli aeromobili debbono corrispondere alle esigenze del terreno.
4) Le superfici d'atterraggio non sono praticabili che al momento in cui lo strato di neve o la resistenza della superficie di ghiaccio sono sufficienti.

Conditions of use:

1) For each landing, and for approaches without landing, prior permission from the AD OPR is required in each case.
2) The pilot must be in possession of a licence extended for landings in mountain areas.
3) ACFT performance and equipment shall be as required for the nature of the terrain.
4) Landing areas can only be approached if the snow cover or the strength of the ice sheet are sufficient.

AD	PSN *COORD WGS84*	ELEV m	RWY MAG	RWY m	OPR / TEL / TELEX / RMK
1	2	3	4	5	6
BLUMENTAL LSWB	46 33 47 N 007 52 27 E (633 395 / 156 945) * Mürrenberg	*1900*	09 / 27	250 x 100 SLOPE: 28%	Gemeinde Lauterbrunnen Von Allmen Lorenz **3825 Mürren** TEL +41 (0) 79 311 01 48 Benützungsbedingungen/Conditions d'utilisation/ Condizioni d'uso/Conditions of use: 1), 2), 3), 4) 1200-1330 LT: nur eine Bewegung gestattet/un seul mouvement admis/solo una rotatione ammessa/one movement only admitted SUN/HOL: für Schulflüge MAX 6 Bewegungen gestattet/pour vols d'école MAX 6 mouvements admis/per voli di scuola MAX 6 rotationi ammesse/MAX 6 movements admitted for school flights * Landeskarte / Carte nationale 1:50 000, Blatt / feuille 264
Helikopter-Landeplatz	46 33 48 N 007 52 46 E (633 800 / 156 990)				
GSTAAD-INN GRUND LSEA	46 25 45 N 007 16 15 E (587 130 / 141 985) *	*1085*			Swiss Helikopter AG **3123 Belp** TEL +41 (0) 33 755 13 21 E-Mail:gstaad@swisshelicopter.ch Benützungsbedingungen/Conditions d'utilisation/ Condizioni d'uso/Conditions of use: 1), 3) nur HEL zugelassen/seuls HEL admis/ unicamente HEL ammessi/HEL only admitted * Landeskarte / Carte nationale 1:50 000, Blatt / feuille 263
Helikopter-Landeplatz					

AD	PSN *COORD WGS84*	ELEV m	RWY MAG	RWY m	OPR / TEL / TELEX / RMK
1	2	3	4	5	6
LAUBERHORN LSWL	46 35 02 N 007 57 00 E (639 200 / 159 300) *	*2230*			Gemeinde Lauterbrunnen **3822 Lauterbrunnen** TEL +41 (0) 33 856 05 60 e-mail: agl@air-glaciers.ch Benützungsbedingungen/Conditions d'utilisation/ Condizioni d'uso/Conditions of use: 1), 2), 3) nur HEL zugelassen/seuls HEL admis/ unicamente HEL ammessi/HEL only admitted * Landeskarte / Carte nationale 1:50 000, Blatt / feuille 254 Während den internationalen Skirennen ist das Flugfeld vom Skigebiet durch Sicherheitsnetze abgesperrt und markiert. Für die übrige Zeit wird vom Flugfeldleiter auf Anfrage hin ein spezieller Landeplatz zugeteilt. Pendant les compétitions internationales de ski, le champ d'aviation est balisé et séparé du domaine skiable par des filets de sécurité. Le reste du temps, une place d'atterrissage spéciale est accordée sur demande par le responsable du champ d'aviation.. Durante le gare internazionali di sci il campo d'aviazione è delimitato da reti di protezione e debitamente contrassegnato. Nel resto dell'anno il responsabile del campo d'aviazione attribuisce su richiesta un'area di atterraggio speciale. During the international ski races, the airfield will be marked and closed off from the ski area with safety nets. The rest of the time, a special landing area will be assigned by the head of the airfield on request.
MÄNNLICHEN LSWM	46 36 38 N 007 56 30 E (638 540 / 162 265) *	*2227*			Swiss Helicopter AG **3814 Gsteigwiler** TEL +41 (0) 33 828 90 00 FAX +41 (0) 33 828 90 10 Benützungsbedingungen/Conditions d'utilisation/ Condizioni d'uso/Conditions of use: 1), 2), 3) nur HEL zugelassen/seuls HEL admis/ unicamente HEL ammessi/HEL only admitted * Landeskarte / Carte nationale 1:50 000, Blatt / feuille 254

SCHWARZSEE LSWS	46 39 58 N 007 16 59 E (588 100 / 168 300) *	*1046*	04 22	600 x 100 SLOPE: Horiz.	Aérodrome Régional Fribourg-Ecuvillens **1730 Ecuvillens** TEL +41 (0) 26 411 12 14 FAX +41 (0) 26 411 35 35 Benützungsbedingungen/Conditions d'utilisation/ Condizioni d'uso/Conditions of use: 1), 4) * Landeskarte / Carte nationale 1:50 000, Blatt / feuille 253
ST. MORITZ LSXM Helikopter-Landeplatz	46 28 44 N 009 49 27 E (783 170 / 150 290) *	*1783*			Swiss Helicopter AG, **7000 Chur** Basis Samedan TEL +41 (0) 81 852 35 35 FAX +41 (0) 81 852 32 72 e-mail: samedan@swisshelicopter.ch Benützungsbedingungen/Conditions d'utilisation/ Condizioni d'uso/Conditions of use: 1), 2), 3) nur HEL zugelassen/seuls HEL admis/ unicamente HEL ammessi/HEL only admitted Benützung beschränkt auf die Zeit vom 15. Dezember bis 15. Mai./Utilisation imitée à la periode du 15 décembre au 15 mai./L'uso è limitato al periodo dal 15 dicembre al 15 maggio./ Use restricted to the period from December 15 to May 15. * Landeskarte / Carte nationale 1:50 000, Blatt / feuille 268

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1. Gebirgslandeplätze:

Benützung der Gebirgslandeplätze (GLP) mit Flächenflugzeugen: Nur bei entsprechender Eignung des Gebirgslandeplatzes (es ist ausschliesslich die Kolonne links massgebend).
Benützung der Gebirgslandeplätze mit Helikopter: Der Ort der Aussenlandung darf, in einem vernünftigen Umkreis, der im Rahmen der Ortsumschreibung bis 400 m um die Koordinaten betragen kann, gewählt werden (Entscheid des Bundesrates vom 7. Mai 1980).

Bei An- und Abflügen sind die zu meidenden Gebiete zu beachten (siehe Karte AGA 3-3 APP 1.)

1. Places d'atterrissage en montagne:

Utilisation des places d'atterrissage en montagne (GLP) par des avions: Uniquement si la place s'y prête (seule la colonne à gauche est déterminante).
Utilisation des places d'atterrissage en montagne par des hélicoptères: Le lieu d'atterrissage peut être choisi à une distance raisonnable, soit un rayon pouvant aller jusqu'à 400 m du point déterminé par les coordonnées dans les limites de la description topographique (décision du Conseil fédéral du 7 mai 1980).

Pour l'approche et le départ, les zones à éviter doivent être respectées (voir la carte AGA 3-3 APP 1.)

1. Aree di atterraggio in montagna:

Utilizzazione delle aree di atterraggio in montagna (GLP) mediante aerei: unicamente se le aree sono idonee (è determinante soltanto la colonna di sinistra).
Utilizzazione delle aree di atterraggio in montagna mediante elicotteri: il luogo di atterraggio può essere scelto entro un raggio ragionevole, che può arrivare fino a 400 m dal punto determinato con le coordinate secondo la descrizione topografica (decisione del Consiglio federale del 7 maggio 1980).

Durante gli avvicinamenti e allontanamenti occorre fare attenzione alle zone che devono essere evitate (vedi carta AGA 3-3 APP 1.)

1. Mountain Landing Sites:

Utilisation of mountain landing sites (GLP) by fixed-wing aircraft: Only if the mountain airstrip (the column on the left is authoritative) is suitable.
Utilisation of the mountain airstrip by helicopters. The off-field landing location can be chosen to be within a reasonable distance, which can be within 400 m of the coordinates for the surrounding area (Federal Council decision dated 7 May 1980).

When landing or taking-off, areas that are to be avoided must be noted (see map AGA 3-3 APP 1.)

Nr./N°	GLP	Name / Nom / Nome		COORD: LV95 *WGS84*	Lage / Bemerkungen	Situation / Remarques	Ubicazione / Osservazione
01	LSYG	Gstellihorn	BE/VS	1132620.28 N / 2586379.52 E *46 20 41 N / 007 15 42 E*	Sattel östlich Gipfel	Col à l'est du sommet	Colle a est della vetta
02							
03	LSYH	Susten Steingletscher	BE	1176024.71 N / 2675420.53 E *46 43 52 N / 008 25 31 E*			
04	LSYK	Kanderfirn	BE	1148349.92 N/ 2629919.80 E *46 29 09 N / 007 49 42 E*	Westlich Mutthornhütte	A l'ouest de la cabane Mutthorn	A ovest della capanna Mutthorn
05	LSVP	Petersgrat	BE/VS	1146479.92 N / 2629939.79 E *46 28 08 N / 007 49 42 E*	Firnplateau	Plateau du névé	Altopiano del nevaio
06							
07	LSVN	Staldenhorn	BE	1141800.22 N / 2584749.58 E *46 25 39 N / 007 14 25 E*	Mulde	Dépression	Depressione
08	LSVS	Sustenlimmi	BE	1171424.72 N / 2675575.50 E *46 41 23 N / 008 25 36 E*	Vorgipfel	Avant le sommet	Prima della cima
09	LSVW	Vordere Walig	BE	1138000.25 N / 2584799.56 E *46 23 35 N / 007 14 28 E*	Gipfel	Sommet	Cima
10	LSVK	Glärnischfirn	GL	1206999.73 N / 2718000.68 E *47 00 13 N / 008 59 25 E*	Firnmulde nur vom 1 NOV - 30 JUN	Dépression du névé seulement du 1 NOV - 30 JUN	Depressione del nevaio soltanto dal 1 NOV - 30 JUN
11	LSYI	Limmerenfirn	GL	1185519.66 N / 2716700.56 E *46 48 38 N / 008 58 04 E*	Oberer Firnrand	Bord supérieur du névé	Bordo superiore del nevaio

Nr./N°	GLP	Name / Nom / Nome		COORD: LV95 *WGS84*	Lage / Bemerkungen	Situation / Remarques	Ubicazione / Osservazione
12	LSVV	Vorabgletscher	GR/GL	1193349.65 N / 2730600.65 E *46 52 42 N / 009 09 07 E*	Sattel	Replat	Sella
13	LSVD	Clariden-Hüfifirn	UR/GL	1186649.55 N / 2710000.59 E *46 49 19 N / 008 52 49 E*	Plateau nördlich Planurahütte	Plateau au nord de la cabane Planura	Altopiano a nord della capanna Planura
14	LSVJ	Alpe Foppa	TI	1108348.95 N / 2712400.27 E *46 07 02 N / 008 53 34 E*	Nur im Einverständnis mit dem Kommandanten des Waffenplatzes Mte Ceneri	seulement avec accord du Commando de la place d'armes Mte Ceneri	unicamente d'intesa con il Comando della piazza d'armi Mte Ceneri
15	LSVE	Aeschhorn	VS	1100999.64 N / 2621099.31 E *46 03 37 N / 007 42 41 E*	Sattel	Col	Colle
16	LSVF	Alphubel	VS	1100049.64 N / 2633774.38 E *46 03 04 N / 007 52 30 E*	Südlich Alphubeljoch	Au sud du Alphubeljoch	A sud d'Alphubeljoch
17	LSVI	Arolla	VS	1095824.88 N / 2603549.21 E *46 00 50 N / 007 29 04 E*			
18	LSYD	Bec de Nendaz	VS	1112150.15 N / 2587899.38 E *46 09 39 N / 007 16 55 E*	Rücken Sommer-Gebirgslandeplatz für Flächenflugzeuge geöffnet vom 15. Mai bis 15. November	Revers Site d'atterrissage estivale en montagne pour avions ouvert du 15 mai au 15 novembre	Dorso Campo d'atterraggio estivo in montagna per aerei aperto dal 15 maggio al 15 novembre
19	LSYQ	Croix de Coeur	VS	1107800.07 N / 2584199.38 E *46 07 17 N / 007 14 03 E*	Sattel	Col	Colle
20	LSYE	Ebnefluh	VS	1150849.75 N / 2639249.89 E *46 30 28 N / 007 57 00 E*	Gratrücken	Revers de l'arête	Dorso del crinale
21	LSYY	Glacier du Brenay	VS	1092999.98 N / 2600919.16 E *45 59 19 N / 007 27 02 E*	Unterhalb Pass	Au-dessous de col	Sotto di passo
22	LSYX	Glacier du Trient	VS	1093050.33 N / 2569299.11 E *45 59 18 N / 007 02 33 E*	Firnrand	Bord du névé	Bordo del nevaio
23	LSYZ	Glacier de Tsanfleuron	VS	1129200.24 N / 2583299.60 E *46 18 50 N / 007 13 19 E*	0,5 km NW Tour St. Martin	0,5 km NW Tour St-Martin	0,5 km NW Tour S. Martin
24	LSVG	Grimentz	VS	1113549.77 N / 2610299.42 E *46 10 24 N / 007 34 19 E*			
25	LSYJ	Jungfraujoch	VS	1155299.77 E / 2642299.98 E *46 32 52 N / 007 59 25 E*	Flacher Hang östlich Sphinxstollen	Replat à l'est de la galerie du Sphinx	Altopiano all'est della galleria dello Sphinx
26	LSYN	Langgletscher	VS	1144799.80 N / 2637199.79 E *46 27 13 N / 007 55 22 E*	Untere Gletschermitte	Partie inférieure du glacier	Parte inferiore del ghiacciaio
27	LSVQ	Monte Rosa	VS	1087799.58 N / 2631999.17 E *45 56 28 N / 007 51 04 E*			
28	LSYP	Petit Combin	VS	1092500.05 N / 2586624.13 E *45 59 02 N / 007 15 58 E*	Gipfel	Sommet	Cima
29	LSYR	Rosa Blanche	VS	1101049.97 N / 2593499.36 E *46 03 39 N / 007 21 17 E*	Grat südlich Gipfel	Arête au sud du sommet	Crinale a sud della cima
30	LSYT	Theodulgletscher	VS	1086999.75 N / 2621049.09 E *45 56 03 N / 007 42 36 E*	Plateau	Plateau	Altopiano
31	LSYU	Unterrothorn	VS	1096624.64 N / 2627799.27 E *46 01 14 N / 007 47 51 E*	Südöstlich Seilbahnstation	Au-sud-est du téléphérique	A sud-est della teleferica
32	LSYW	Wildhorn	VS	1133675.18 N / 2593999.55 E *46 21 16 N / 007 21 38 E*	Krete Westgipfel	Crête à l'ouest du sommet	Cresta a ovest della vetta
34	LSVC	Col des Mosses	VD	1138575.34 N / 2574024.50 E *46 23 53 N / 007 06 03 E*			
35	LSYA	Alp Trida[1)]	GR	1207125.13 N / 2823325.93 E *46 58 39 N / 010 22 28 E*	Talboden	Vallée	Valle
36	LSYC	Crap Sogn Gion	GR	1188874.67 N / 2735375.68 E *46 50 14 N / 009 12 48 E*	Plateau nordwestlich Seilbahnstation	Plateau au nord-ouest de la station du funiculaire	Altopiano a nord-ovest della stazione della funicolare
37	LSYF	Fuorcla Chamuotsch[2)]	GR	1152599.62 N / 2777600.96 E *46 30 04 N / 009 45 09 E*	Sattel	Col	Sella
38	LSVH	Fuorcla Grischa[2)]	GR	1154249.65 N / 2780250.94 E *46 30 55 N / 009 47 16 E*	Buckel	Bosse	Gobba

39	LSVO	Madrisahorn	GR	1200725.00 N / 2784800.80 E *46 55 55 N / 009 51 57 E*	Sattel	Col	Sella
40	LSYV	Vadret dal Corvatsch[2)]	GR	1143574.57 N / 2783376.07 E *46 25 06 N / 009 49 27 E*	Gletschermulde	Dépression dans le glacier	Depressione del ghiacciaio
41	LSVR	Vadret Pers[2)]	GR	1141524.64 N / 2792851.21 E *46 23 50 N / 009 56 48 E*	nur für Flugzeuge	seulement pour avions	soltanto per aeroplani
42	LSYB	Blüemlisalp[3)]	BE	1150859.90 N / 2625459.83 E *46 30 31 N / 007 46 13 E*	nur für Ausbildung	à des fins d'instruction seulement	soltanto a scopi d'istruzione
43	LSVA	Arosa	GR	1182899.67 N / 2771500.80 E *46 46 31 N / 009 41 04 E*	Bei ARA	Près „ARA“ (=STEP)	Presso „ARA“ (= IDA)

1)
Samnaun Customs Enclave
Zollausschlussgebiet Samnaun
Enclave douanière Samnaun
Enclave doganale estera Samnaun

2)
Not permitted to transport personnel for tourism purposes between 1 May and 31 October
zur Personenbeförderung zu touristischen Zwecken untersagt zwischen 1. Mai und 31. Oktober
le transport de personnes à des fins touristiques est interdite du 1er mai au 31 octobre
il trasporto di persone a scopi turistici è vietata dal 1 maggio al 31 ottobre

3)
The requirement whereby off-field landing must be within 400m of the designated coordinates does not apply in the case of the Blüemlisalp mountain landing site.
Die Beschränkung für die Aussenlandung im Umkreis von max. 400 m um die bezeichnete Koordinate gilt nicht für den Gebirgslandeplatz Blüemlisalp.
La restriction concernant le lieu d'atterrissage devant être situé dans un rayon de max. 400 m autour de la coordonnée publiée n'est pas applicable pour la place d'atterrissage en montagne Blüemlisalp.
L'obbligo di effettuare l'atterraggio esterno entro un raggio massimo di 400 m dal punto individuato dalle coordinate designate non si applica all'area d'atterraggio in montagna Blüemlisalp.

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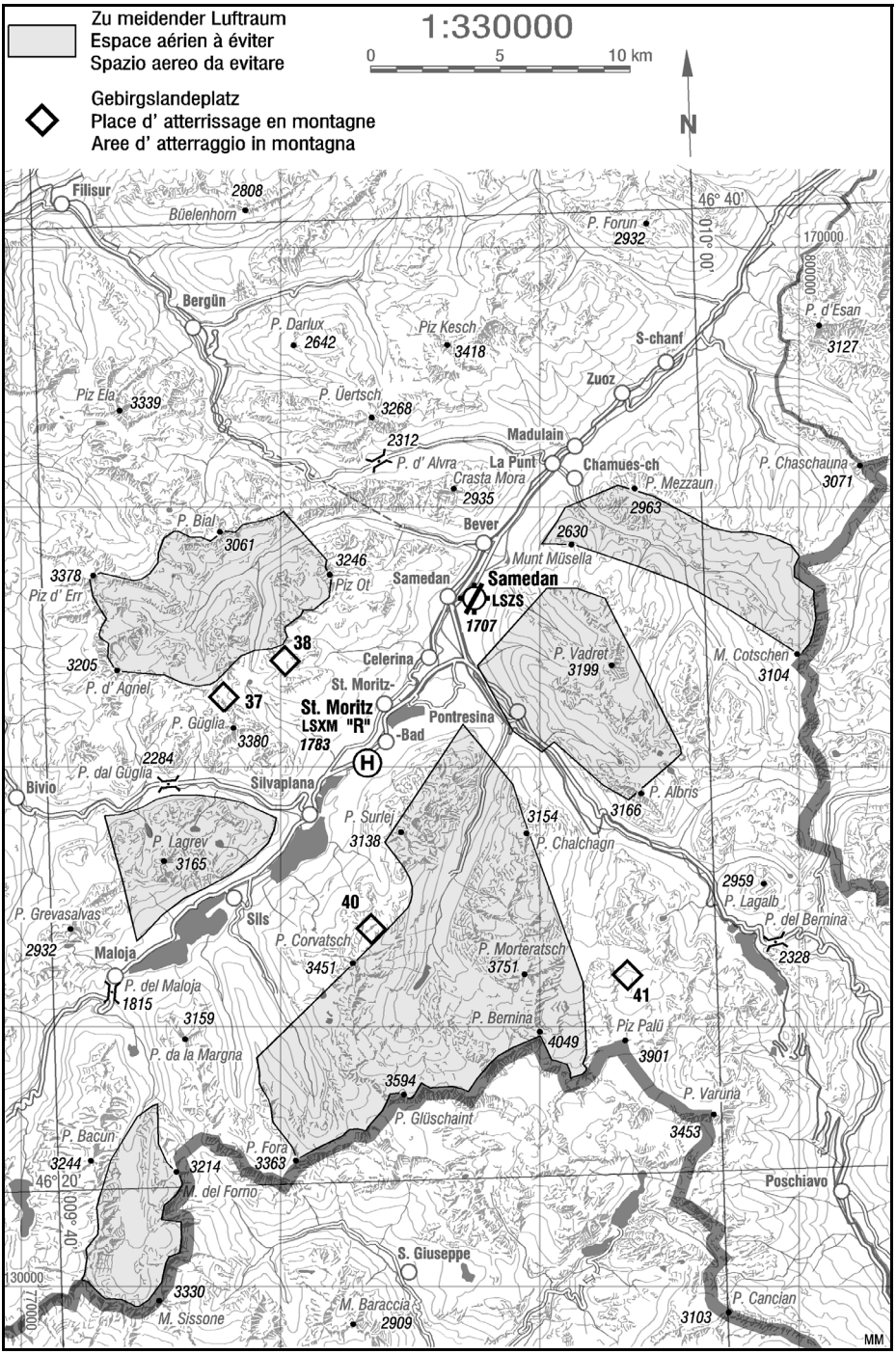
Zu meidender Luftraum
Espace aérien à éviter
Spazio aereo da evitare
Gebirgslandeplatz
Place d' atterrissage en montagne
Aree d' atterraggio in montagna
1:330000
0 5 10 km
N
Filisur
2808
Büelenhorn
Bergün
P. Darlux
2642
Piz Kesch
3418
P. Forun
2932
S-chanf
Zuoz
P. d'Esan
3127
Piz Ela
3339
P. Üertsch
3268
2312
P. d' Alvra
Madulain
La Punt
Chamues-ch
Crasta Mora
2935
P. Mezzaun
2963
P. Chaschauna
3071
P. Bial
3061
Bever
2630
Munt Müsella
3246
Piz Ot
3378
Piz d' Err
Samedan
Samedan
LSZS
1707
38
3205
P. d' Agnel
Celerina
St. Moritz-
Bad
37
St. Moritz
LSXM "R"
1783
P. Güglia
3380
Pontresina
P. Vadret
3199
M. Cotschen
3104
2284
P. dal Güglia
Bivio
Silvaplana
P. Albris
3166
P. Surlej
3138
3154
P. Chalchagn
P. Lagrev
3165
2959
P. Lagalb
P. del Bernina
2328
40
Sils
P. Grevasalvas
2932
Maloja
P. Corvatsch
3451
P. Morteratsch
3751
P. del Maloja
1815
3159
41
P. Bernina
4049
Piz Palü
3901
P. da la Margna
3594
P. Varuna
3453
P. Glüschaint
P. Bacun
3244
P. Fora
3363
3214
46° 20'
M. del Forno
Poschiavo
S. Giuseppe
3330
M. Sissone
M. Baraccia
2909
P. Cancian
3103
MM
46° 40'
170000
130000
77000

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1. WASSERFLUGPLÄTZE
1. AERODROMI ACQUA

1. PLACES D'AMERRISSAGE
1. WATER AERODROMES

Benützungsbedingungen:
Der Pilot muss Träger des Einzeleintrags für Wasserflugzeuge oder Amphibienflugzeuge sein.

Conditions d'utilisation:
Le pilot doit être titulaire d'une inscription individuelle pour les hydravions ou avions amphibies.

Condizioni d'uso:
Il pilota deve possedere l'iscrizione individuale per gli idroplani o gli aerei anfibi.

Conditions of use:
The pilot must be in possession of the single entry for seaplanes or amphibious aircraft.

AD	PSN *COORD WGS84*	ELEV m	RWY MAG	RWY m	OPR / TEL / TELEX / RMK
1	2	3	4	5	6
LACHEN LSPW	47 12 38 N 008 52 12 E	*405*	08/26	2500 x 100	Lachen Sea Plane Base Ueli Diethelm 8808 Pfäffikon SZ TEL +41 (0) 55 420 20 90 Benützungsbedingungen / Conditions d'utilisation / Condizioni per l'uso / Terms of use: **PPR** Betriebszeiten/Horaires de service /Orario di servizio/ Operating hours: MON-SUN: 0800-1200, 1400-1700 LT **SUN: Nur in LSPW stationierte Flugzeuge** **SUN: Seulement avions basés à LSPW** **SUN: Di stanza solo in aerei LSPW** **SUN: In LSPW homebased aircraft only** Geschlossen an folgenden Feiertagen: Karfreitag, Bettag / Fermée les jours fériés suivants: Vendredi saint, jour de jeûne / Chiuso nei giorni festivi seguenti: Venerdi santo, Digiuno federale / Closed on the following public holidays: Good Friday, Swiss Day of Prayer Keine Platzrunden an folgenden Tagen / Pas de tours de piste les jours suivants / Nessun circuito di guida nei giorni seguenti / No circuits on the following days: AUG 15, NOV 01 **Die Basis ist vom 1. Dezember bis 31. März geschlossen /** **La base est fermée du 1er décembre au 31 mars /** **La base è chiusa dal 1° dicembre al 31 marzo /** **The base is closed from DEC 01 until MAR 31**

Auf das Seebecken achten / Tenir compte du lac / Fare attenzione al lago / Be aware of the lake basin.

Gesetzliche Abstände zu Kursschiffen (grüne Kugel), Berufsfischer (gelbe Kugel) und Schleppfischer (weisse Kugel) sind einzuhalten.
Il faut respecter les distances légales par rapport aux bateaux de ligne (sphère verte), aux pêcheurs professionnels (sphère jaune) et aux pêcheurs à la traîne (sphère blanche).
È necessario rispettare le distanze a norma di legge da battelli in servizio regolare (sfera verde), pescatori professionisti (sfera gialla) e pescatori a strascico (sfera bianca).
Legal distances to scheduled boat services (green ball), professional fishermen (yellow ball) and trolling (white ball), must be complied with.

Landeskarte / Carte nationale / Carta nazionale / National map 1:50 000
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1 **Conversion Table / Umrechnungstabelle / Table de conversion / Tabella di conversione**

Dimension	SI Unit	US Unit	Conversion
Length	mm - millimeter	in - inch	1 in = 25.4 mm
	m - meter	ft - feet	1 ft = 0.3048 m
	km - kilometer	NM - Nautical Mile	1 NM = 1.852 km
Volume	1 - liter	US gal - Gallons	1 gal = 3.7854 l
		qts - quarts	1 qts = 0.9464 l
Speed	km/h - kilometer per hour	kts - knots	1 kts = 1.852 km/h
	m/s - meter per second	fpm - feet per minute	1 m/s = 196.85 fpm
Mass	kg - kilogram	lbs - pound	1 kg = 2.2046 lbs
Force, Weight	N - Newton	lbf - poundforce	1 N = 0.2248 lbf
Pressure	hPa - hectopascal	inHG - inches of mercury	1 inHG = 33.86 hPa
	bar - bars	psi pounds per square inch	1 bar = 14.504 psi
Temperature	°C - degrees Celsius	°F - degrees Fahrenheit	°C * 1.8 +32 =°F
			(°F-32) / 1.8 = °C

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1 **METEOROLOGY**

The following daily weather forecasts are issued for **visual flight traffic:**

- Aviation weather forecast
- Low-Level SWC Alps, W/T-Chart, Wind Barbs, QNH-Chart
- GAFOR
- Glider forecast

In addition, there are the internationally standardised aviation weather products according to ICAO, which have important significance for visual flight traffic.

- METAR/TAF
- AIRMET
- SIGMET
- SWC, Wind and Temperature Charts

2 **Aviation weather forecast**

Issued at	Validity
0500 UTC	0600-1200 UTC
1100 UTC	1200-1800 UTC

The aviation weather forecast provides information about:

- General weather situation:
- Clouds, visibility and weather in the climatologically related regions of Switzerland;
- Wind and temperature north of the Alps for selected heights up to 16,000 m. tropopause, wind maximum (only if 60 kt or more), and zero-degree isotherms;
- Dangers;
- Outlook until midnight:
- Forecast wind and temperature for Payerne, Lugano and Zurich at 0900 UTC and 1500 UTC, and/or 1200 UTC and 1800 UTC;
- Three-day weather forecast.

3 **Low-Level SWC Alps, W/T Chart, Wind Barbs, QNH Chart**

3.1 **Low-Level SWC Alps**

The low level SWC (Significant Weather Chart) Alps is a forecast chart for the FIR Switzerland and FIR Vienna as well as the neighbouring areas and stretches from the surface of the earth up to FL 250. It is issued every 4 hours and provides information about weather phenomena that could have an impact on the safety of flights in the lower airspace. The Low-Level SWC includes all weather phenomena, which obliges an AIRMET to be issued. For this reason no AIRMET are issued in Switzerland. Should the situation change significantly in the FIR Switzerland and FIR Vienna between the issuing times, an amended Low-Level SWC will be published. Outside these two FIR the chart is for information purposes only. Thus the official national products must be used in addition

The Low-Level SWC is enhanced by upper wind charts (W/T Chart, Wind Barbs) and pressure charts (QNH Chart).

The Low-Level SWC comprises:

- A header with the time of validity for the graphical content ("CHART VALID AT"), the time of the forecast for the text element in the lower right corner ("OUTLOOK VALID TILL") and the time of issue ("ISSUED AT"). If the chart was amended, this can be seen by the text "AMD DUE TO" and a description of the amendment;
- A topographical chart showing the national borders,
- The significant weather is indicated using internationally recognised symbols, specified abbreviations, numbers and meteorological and geographical terminology in accordance with the valid version of the ICAO Annex 3, Appendix 1-12 "SHEET OF NOTATIONS USED IN FLIGHT DOCUMENTATION". A detailed explanation can also be found in the brochure "Flugwetterinformationen in der Schweiz" (Aviation Meteorological Information for Switzerland, not available in English) (https://www.meteoswiss.admin.ch/services-and-publications/service/weather-and-climate-products/aviation-weather.html);
- Two text fields in the lower right corner with the forecast for the western and eastern parts of the chart ("OUTLOOK WEST", "OUTLOOK EAST").

The outlook represents the 4 hours following the time of validity.

The following weather information is forecast in the Low Level SWC:

- Surface pressure centres and fronts together with their tracking;
- Inclement weather areas with dense or closed cloud cover, widespread poor visibility and widespread precipitation;
- High convective clouds and other cloud formations below FL250 with the amount, type and lower and upper ceilings. Additional information if the mountains are covered by clouds;
- Prevailing visibility near the ground below 3000 ft AMSL;
- Weather phenomena such as precipitation, poor visibility (fog, smog), thunderstorms;
- Special weather hazards for aviation such as icing, turbulence and lee waves
- Strong wind zones near the ground below 3000 ft AMSL;
- Special terminology to better describe the affected area (mountains, valleys) but also regional weather phenomena such as southerly föhn.

It should be noted that the phenomena can only be represented on the chart if they have a specific expanse. The weather phenomena TS1 and CB/TCU already include MOD/SEV ICE and MOD/SEV TURB and CB, as well as low-level wind shear. Thus these phenomena are not explained separately.

Cloud cover is specified in FEW (1-2/8), SCT (3-4/8), BKN (5-7/8) or OVC (8/8) Isolated convection clouds can occur (ISOL; less than 50% of the area is affected), occasionally (OCNL; between 50% and 75% of the area is affected) or widespread (FRQ; more than 75% of the area is affected). Moreover, that can be hidden linearly (SQL), by mist and smoke (OBSC) or embedded in layers of cloud (EMBD).

Every 4 hours two Low-Level SWC are issued, the first with a time of validity of +2 hours, the second for +6 hours from the time of publication. An outlook in text form for the following 4 hours for the western and the eastern parts of the area enhances the graphic where, overall, a period of 10 hours is illustrated.

All the abbreviations mentioned here are explained in the brochure "Flugwetterinformationen in der Schweiz" (Aviation Meteorological Information for Switzerland, not available in English) (https://www.meteoswiss.admin.ch/services-and-publications/service/weather-and-climate-products/aviation-weather.html).

Times of validity Low-Level SWC Alps:		
Published	**Validity**	**Outlook**
0000 UTC	Chart 1: 0200 UTC	0200 - 0600 UTC
	Chart 2: 0600 UTC	0600 - 1000 UTC
0400 UTC	Chart 1: 0600 UTC	0600 - 1000 UTC
	Chart 2: 1000 UTC	1000 - 1400 UTC
0800 UTC	Chart 1: 1000 UTC	1000 - 1400 UTC
	Chart 2: 1400 UTC	1400 - 1800 UTC
1200 UTC	Chart 1: 1400 UTC	1400 - 1800 UTC
	Chart 2: 1800 UTC	1800 - 2200 UTC
1600 UTC	Chart 1: 1800 UTC	1800 - 2200 UTC
	Chart 2: 2200 UTC	2200 - 0200 UTC
2000 UTC	Chart 1: 2200 UTC	2200 - 0200 UTC
	Chart 2: 0200 UTC	0200 - 0600 UTC

The respective charts remain valid until the next publication time. The first is then cancelled and the second chart is replaced by a new, amended chart (with the same period of validity). This means that at any time two Low-Level SWC are available.

The Low-Level SWC supplementary charts are:

- High altitude wind charts (W/T Chart, Wind Barbs);
- Pressure charts (QNH Chart).

3.2 **High Altitude Wind Charts (W/T Chart, Wind Barbs)**

The W/T Chart contains the wind direction, wind speed and temperature in tabular form for different altitudes as well as the freezing level at various geographical points. The Wind Barbs show the same wind information in graphical form using wind arrows.

3.3 **Pressure Charts (QNH Chart)**

The QNH Chart displays pressure values (QNH) at different geographical points as well as the average wind and pressure differences between two selected points ("potential for Föhn").

The high altitude wind and pressure charts are updated twice a day and cover a time period of up to 27 hours.

Publication	Validity	Publication	Validity
0600-0800 UTC	Chart 1: 0600 UTC	1800-2200 UTC	Chart 1: 1800 UTC
	Chart 2: 0900 UTC		Chart 2: 2100 UTC
	Chart 3: 1200 UTC		Chart 3: 0000 UTC
	Chart 4: 1500 UTC		Chart 4: 0300 UTC
	Chart 5: 1800 UTC		Chart 5: 0600 UTC
	Chart 6: 2100 UTC		Chart 6: 0900 UTC
	Chart 7: 0000UTC		Chart 7: 1200 UTC
	Chart 8: 0300 UTC		Chart 8: 1500 UTC

Following a new model run. 8 W/T charts, 8 wind barbs and 8 QNH charts are available.

4 **GAFOR**

4.1 **GAFOR**

The GAFOR provides information about weather conditions (visibility/ceiling) for the main visual flight routes in Switzerland and is issued three times a day during the winter semester and four times a day during the summer semester:

Time of issuance (UTC)	Validity (UTC)	Time segments (UTC)		
0345 (during central European summer time CEST)	0400 - 1000	0400 - 0600	0600 - 0800	0800 - 1000
0545 (during regular central European time CET)*	0400 - 1000	/	0600 - 0800	0800 - 1000
0745	0800 - 1400	0800 - 1000	1000 - 1200	1200 - 1400
1145	1200 - 1800	1200 - 1400	1400 - 1600	1600 - 1800
1545 (during central European summer time CEST)*	1600 - 2200	1600 - 1800	1800 - 2000	/

* The formal period of validity of a GAFOR is always 6 hours to maintain the same code format (text version) and layout (chart version) throughout the day. For practical reasons the first 2 hours segment of the first GAFOR during regular time and the last 2 hours segment of the last GAFOR during summertime contain no weather information but only a "/".To provide the latest information available, the first GAFOR during regular time is published after the regular start of its validity period.

The GAFOR comprises the route identification and the forecast for visibility in kilometres as well for ceiling (ceiling of 5/8 and above). The conditions are forecasted in the form of classes (O/D/M/X) for each time segments. The definitive GAFOR class is defined by the least visibility and ceiling on the corresponding GAFOR route (incl. start and end point).

Weather categories					
Ceiling					
2000 ft	**X**	**M**	**D**	**O**	Oskar / open
1500 ft	**X**	**M**	**D**	**D**	Delta / difficult
1000 ft	**X**	**M**	**M**	**M**	Mike / marginal
	X	**X**	**X**	**X**	X-Ray / closed
	2 km	5 km	8 km		**Visibilty**
Ceiling: Lowest cloud base of at least 5 oktas (BKN/OVC)					

O		**Visibility ≥ 8 km**	**Ceiling ≥ 2000 ft**
Oscar	Open Open	Visibility 8 km or more and ceiling 2000 ft or higher above the terrain. No weather-relevant obstacle for visual flight.	

D		**8 km > Visibility ≥ 5 km**	**2000 ft > Ceiling ≥ 1500 ft**
Delta	Difficult Difficult	Visibility less than 8 km, but at least 5 km; and/or ceiling below 2000 ft, but at least 1500 ft over the terrain. Trained pilots can still fly using visual navigation.	

M		**5 km > Visibility ≥ 2 km**	**1500 ft > Ceiling ≥ 1000 ft**
Mike	Critical Marginal	Visibility less than 5 km, but at least 2 km; and/or ceiling below 1500 ft, but at least 1000 ft over the terrain. Well-trained pilots with detailed knowledge of local conditions can still fly using visual navigation.	

X		**Visibility < 2 km**	**Ceiling < 1000 ft**
X-ray	Closed	Visibility below 2 km and/or ceiling below 1000 ft over the terrain. Visual flight not possible.	

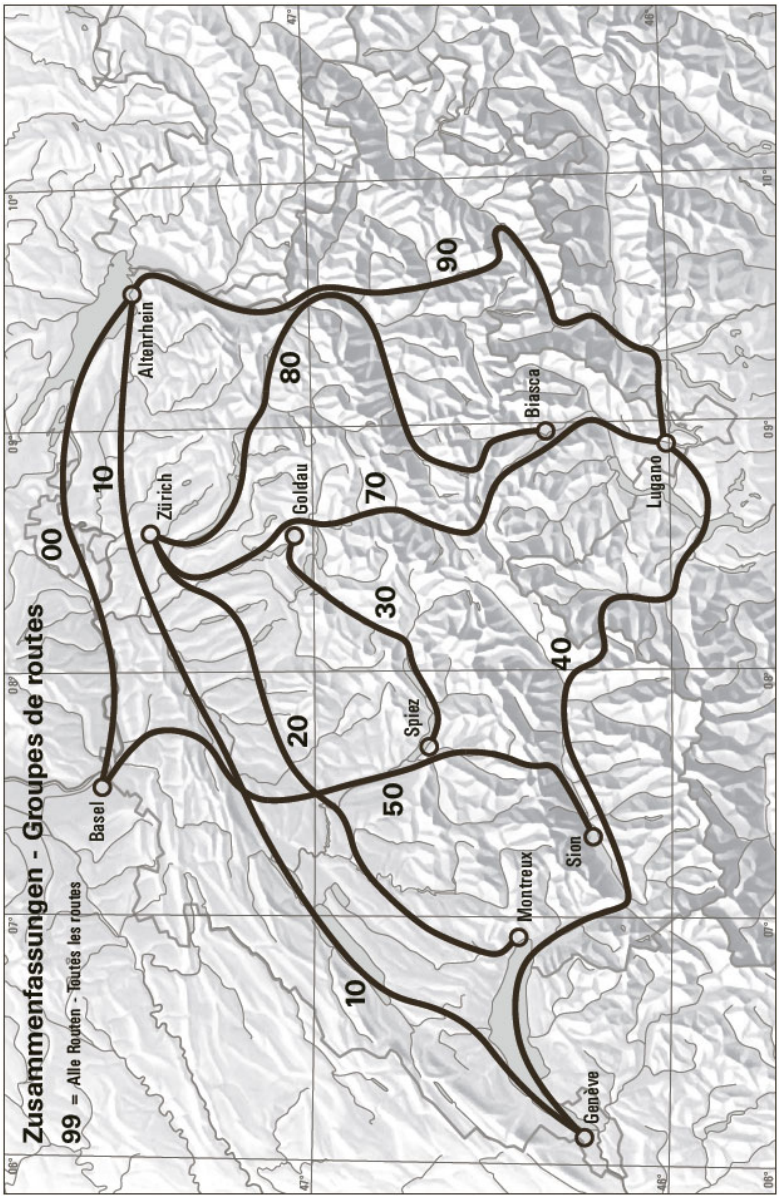
For all weather categories except “O”, the meteorological reason for the reduction of visibility and/or the low ceiling is indicated by the most relevant phenomenon from the following table:

No.	Symbol	Phenomenon
1		Thunderstorm
2	✱	Snow
3	●	Rain
4		Showers of Snow
5		Showers of Rain
6	**LC**	Low Clouds
7	≡	Fog
8	=	Mist

Other weather phenomena hazardous to aviation, such as icing and turbulence are forecasted in the Low-Level SWC Alps or aviation weather forecast. They are not taken into account in GAFOR.

4.2 **Flight routes**

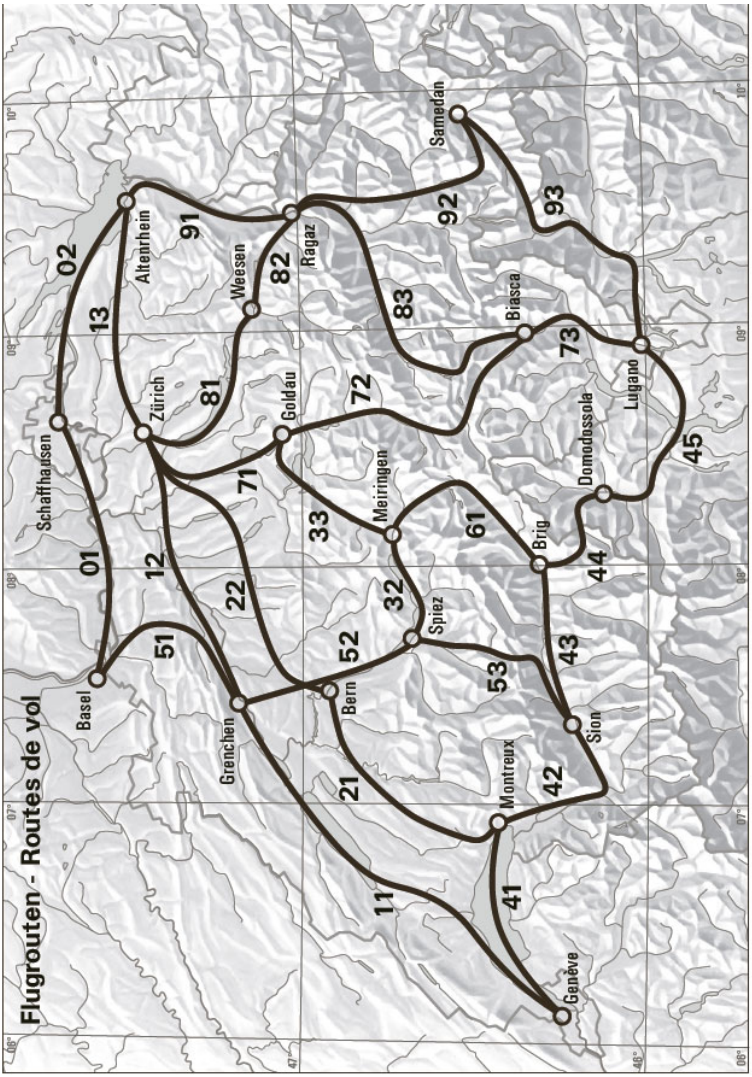
Summary of routes:



Flight routes		Reference height AMSL (highest point of a route)
00	Basel-Schaffhausen-Altenrhein	*1600 ft*
10	Genève-Grenchen-Zürich-Altenrhein	*1900 ft*
20	Montreux-Bern-Zürich	*2900 ft*
30	Spiez-Meiringen-Brünig-Goldau	*3600 ft*
40	Genève-Simplonpass-Domodossola-Lugano	*6800 ft*
50	Basel-Gemmipass-Sion	*7700 ft*
70	Zürich-Gotthardpass-Lugano	*7200 ft*
80	Zürich-Lukmanierpass-Biasca	*6500 ft*
90	Altenrhein-Julierpass-Malojapass-Lugano	*7500 ft*
99	All routes	*7700 ft*

4.3 **Flight routes**

Summary of routes:



Flight routes		Reference height AMSL (highest point of a route)
01	Basel-Schaffhausen	*1600 ft*
02	Schaffhausen-Altenrhein	*1600 ft*
11	Genève-Morges-Grenchen	*1900 ft*
12	Grenchen-Bremgarten-Zürich	*1900 ft*
13	Zürich-Attikon-Altenrhein	*1900 ft*
21	Montreux-Romont-Fribourg-Neuenegg-Bern	*2900 ft*
22	Bern-Moossee-Sursee-Bremgarten-Zürich	*2900 ft*
32	Spiez-Meiringen	*1900 ft*
33	Meiringen-Brünig-Küssnacht-Goldau	*3600 ft*
41	Genève-Montreux	*1600 ft*
42	Montreux-Sion	*1600 ft*
43	Sion-Brig	*2300 ft*
44	Brig-Simplonpass-Domodossola	*6800 ft*
45	Domodossola-Laveno-Lugano	*1600 ft*
51	Basel-Langenbruck-Grenchen	*2600 ft*
52	Grenchen-Bern-Spiez	*1900 ft*
53	Spiez-Gemmipass-Sion	*7700 ft*
61	Meiringen-Grimselpass-Brig	*7200 ft*
71	Zürich-Bremgarten-Goldau	*1900 ft*
72	Goldau-Gotthardpass-Biasca	*7200 ft*
73	Biasca-Lugano	*1900 ft*
81	Zürich-Horgen-Weesen	*1600 ft*
82	Weesen-Ragaz	*1600 ft*
83	Ragaz-Lukmanierpass-Biasca	*6500 ft*
91	Altenrhein-Ragaz	*1600 ft*
92	Ragaz-Lenzerheide-Julierpass-Samedan	*7500 ft*
93	Samedan-Malojapass-Menaggio-Lugano	*6200 ft*

5 **Glider flight forecast**

The glider forecast provides information about the weather situation, wind and temperature forecast, freezing level, inversion, clouds, thermals, precipitation and visibility. It is published from April to September.

6 **AIRMET**

In Switzerland phenomena worthy of an AIRMET are illustrated in the Low-Level SWC Alps, which are amended as necessary. For this reason, no AIRMET are issued.

7 **SIGMET**

The SIGMET publishes information as required according to ICAO about phenomena posing a serious danger to flights in the entire FIR/UIR Switzerland.

In Switzerland warnings are issued for weather phenomena posing a serious danger to flights.

Thunderstorm	
obscured	OBSC TS
embedded	EMBD TS
frequent	FRQ TS
squall line	SQL TS
obscured with heavy hail	OBSC TS HVYGR
embedded with heavy hail	EMBD TS HVYGR
frequent with heavy hail	FRQ TS HVYGR
squall line with heavy hail	SQL TS HVYGR

Turbulence	
severe turbulence	SEV TURB

Icing	
severe icing	SEV ICE
severe icing due to freezing rain	SEV ICE (FZRA)

Mountain wave	
severe mountain wave	SEV MTW

There is also SIGMET for volcanic ash (VA) in the unlikely event that FIR/UIR Switzerland could be affected by transported ash.

The period of validity should not exceed 4 hours (but up to 6 hours is possible in the case of VA SIGMET).

8 **How to obtain aviation weather services**

Apart from the self-briefing stations (skybriefing and TAMSI) at the airports, the following possibilities are available for obtaining aviation weather services:

Telefon			
Service	*German*	*French*	*Price*
Personal advice: Engine-powered flight	0900 162 737	0900 162 767	CHF 2.90/min.

APP		
Service	*Source*	*Price*
MeteoSwiss Aviation In-App: Aviation weather forecast for motorised and glider pilots, balloonists, hang gliders and paragliders	Google Play Store / Apple App Store	CHF 50.- / year

Internet		
Service	*Website*	*Price*
Internet Briefing Alpine region and more	www.flugwetter.de	CHF 85.- / year
Internet flight preparation	www.skybriefing.com	Depending on service and access time

WEATHER BROADCASTS								
Name	Call sign	EM	FREQ MHz	Time	Times	Stations	Content	Remarks
1	2	3	4	5	6	7	8	9
GENEVA	Geneva MET Broadcast	A3E	126.805	CNS	H24	Geneva Zurich Basle-Mulhouse Nice Lyon-Saint-Exupéry Paris -Charles-de-Gaulle Paris-Orly Milan-Linate Milan-Malpensa Bern [1)]	AERODROME ROUTINE WEATHER REPORT	Plain text - English VOLMET TEL no: +41 (0) 22 417 40 82 [1)] AUTO METARs outside AD's operating hours
ZURICH	Zurich MET Broadcast	A3E	127.205	CNS	H24	Zurich Geneva Basle-Mulhouse Frankfurt/Main Munich Stuttgart Milan-Linate Milan-Malpensa Lugano [1)] Bern [1)]		Plain text - English VOLMET TEL No.: +41 (0) 43 931 60 71 [1)] AUTO METARs when AD is closed

9 **SNOWTAM**

The following Items are used for SNOWTAM reports:

Item	Information
Aeroplane performance calculation section	
A	Aerodrome location indicator
B	Date and time of assessment
C	Lower runway designation number
D	Runway Condition Code (RWYCC) on each runway third
E	Per cent coverage contaminant for each runway third
F	Depth of loose contaminant for each runway third (in mm)
G	Condition description (contaminant type) for each runway third
H	Width of runway to which the RWYCCs apply if less than published width (in meter)
Situational awareness section	
I	Reduced runway length if less than published length
J	Drifting snow on the runway
K	Loose sand on the runway
L	Chemical treatment on the runway
M	Snowbanks on the runway
N	Snowbanks on taxiway
O	Snowbanks adjacent to the runway
P	Taxiway conditions
R	Apron conditions
S	State-approved and published use of measured friction coefficient
T	Plain language remarks using only allowable characteristics in capital letters

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1 **RADIO TELEPHONY (RTF)**

In order to be able to practise radio telephony a radio telephony licence (pilot's licence with RTF or ID for in-flight telephonists) is required.

Pilots of aeroplanes, helicopters, aircraft with vertical take-off and landing capability and airships required to engage in aeronautical radio communications may only exercise the rights and entitlements associated with their licences if they have a valid language entry (at least level 4) in the language used in their licence.

No radio telephony licence is required by a student pilot

- contacting the control tower, the AFIS Unit or the AD FREQ of the aerodrome where his training takes place, as long as he is under the control of the flight instructor,
- contacting air traffic services and AFIS to carry out navigation flights under the supervision of the flight instructor.

No language entry is required for:

a) blind transmissions to uncontrolled aerodromes
b) frequencies for special use
c) for glider pilots and balloonists
d) for communication with the Flight Information Service (FIS)

1.1 **Aerodromes without air navigation services (AD frequencies)**

Frequencies

The aerodrome frequencies (AD) are listed on the AD COM/AFIS Radio Facility chart on page COM 2-APP. The available languages are also published there.

General regulations

Air navigation services are reserved for certified air navigation service providers and must not be provided by organisations or persons (incl. chiefs of aerodromes without air navigation services) that do not have the required certification. Upon the entry into force of Regulation (EU) 2020/469, the countries are offered the chance on European level to define the requirements for aeronautical radio communication at aerodromes without air navigation services. This is to ensure that air navigation services are not offered on such aerodromes. On the other hand, the way how and the conditions under which safety-related information may be exchanged via aeronautical radio should be regulated.

Chiefs of aerodromes without air navigation services have the option of communicating specific information via radio on the aerodrome frequency (AD). Pilots are generally not entitled to receive information via radio. Pilots are also not obliged to make use of any information received via radio for the execution of their flights. They remain responsible for the safe operation of their flights at all times. Exemptions to this rule are instructions provided within the scope of authority of the chief of an aerodrome without air navigation services as set out in Art. 29g (1) VIL. These must be followed.

No special airspace structures are required to use aeronautical radio on aerodromes without air navigation services.

Permitted scope

The following information may be exchanged between flight crews and chiefs of aerodromes without air navigation services as part of the ground-to-air radio communication on the aerodrome frequency (AD):

a) Radio checks;
b) Information regarding the current traffic situation within the aerodrome's traffic pattern and regarding the approved or known activities of glider flights, acrobatic flights, parachute jumps, paragliding flights and model airplane and drone activities;
c) Information about the runway to be preferentially used;

d) Information about a blocked runway or about the closure of the aerodrome in accordance with the corresponding NOTAM publication;
e) Information about technical irregularities of the aerodrome infrastructure;
f) Parking position allocation and instructions provided within the scope of the authority of the chief of an aerodrome without air navigation services;
g) Information about unusable or temporarily unusable movement areas;
h) General information on short-term changes to the runway condition in the event of contamination;
i) Information about technical irregularities of the aircraft;
j) Requests for position reports and flight purposes to increase *situational awareness*, advice and information in the event of clearly imminent emergency situations;
k) Information for flight crews about the activation/deactivation of restricted areas for gliders within the TMA;
l) Information regarding the required closing or activation of a flight plan;
m) All emergency and distress messages and the required information in relation with an emergency situation that has occurred;
n) General information in case of an ELT (false) alarm in the aerodrome area;
o) General information on the wind, incl. specification of the geographical direction (e.g. "foehn", or "strong wind from the west");
p) Reduced visibility due to local weather phenomena (e.g. storm, heavy rain or fog);
q) Local weather phenomena currently occurring (e.g. rain, snowfall or hail).

1.2 **Blind transmissions to aerodromes without reception confirmation**

Scope

Pilots of aircraft with radio equipment who want to land or take-off from aerodromes that cannot provide an AFIS service are recommended to transmit a position and intention report “blind“ **(blind transmission)**.

Procedures

Approaches

About 5 minutes before reaching the aerodrome the following information is to be reported: receiving station, call sign, position, altitude, intention.

Example:

LANGENTHAL AERODROME, HB-CWB WYNIGEN 4000 FEET LANDING IN LANGENTHAL

- The following information is then to be transmitted:
  H-WB OVERHEAD, WILL JOIN DOWNWIND RUNWAY 05 H-WB
  DOWNWIND RUNWAY 05
  H-WB FINAL RUNWAY 05

Take-offs

- Before take-off the pilot switches on his radio and makes sure that there is currently no comunication on the corresponding frequency.
- He then transmits the information about his imminent take-off:

Example:

LANGENTHAL AERODROME, HB-CWB TAXIING TO HOLDING POINT RUNWAY 05
H-WB READY FOR DEPARTURE RUNWAY 05

- If there is no call from another aircraft, the pilot can taxi to the runway for take-off having previously ascertained that the approach sector is free:

Example:

H-WB TAKING-OFF RUNWAY 05 DIRECTION LOTZWIL

Frequencies

Traffic information is transmitted

- on the frequency according to COM 2 APP-1;
- on the frequency 130.355 MHz for mountain landing sites.

Notes

The procedure described enables all pilots of aircraft with radio equipment to assess the traffic situation and act accordingly.

Wherever possible, transmissions should be made in English RTF so that they can be understood by non-local pilots.

The blind transmission does not release the pilot of the obligation to monitor the airspace.

2 **FREQUENCIES FOR SPECIAL USE**

FREQUENCIES FOR SPECIAL USE			
FREQ / Channel MHz	UTILISATION		Languages used
1	2		3
GENERAL AVIATION			
123.135	Air-to-Air communication up to max. FL150		En, Ge, Fr, It, Swiss-German
GLIDER FLIGHTS			
122.305	Region NORTH	A/G	Ge, Fr, It, Swiss-German Only the following transmissions are permitted on these frequencies: • Test transmissions • Location reports • Weather reports • Message exchange, pilot-accompanying vehicle • Message exchange, pilot flight instructor Languages used: German, French, Italian, Swiss-German In-flight radio telephonists do not require a licence for radio communications of this nature.
123.580	Region NORTH	A/A	
120.880	GLD INFO (GLD ACT within TMA Zurich)		
122.480	Region ALPS	A/G	
123.680	Region ALPS	A/A	
121.130	Region WEST	A/G	
125.030	Region WEST	A/A	
124.755	GLD ATIS (GLD ACT within TMA Geneva)		
122.955	Training		
BALLOONS			
122.255	E Basel - St. Moritz and Alps		Ge, Fr, It, Swiss-German
122.130	W Basel - St. Moritz		
	The frequencies 122.255 MHz and 122.130 MHz are available for balloonists communicating with one another and with accompanying vehicles.		
PARACHUTING PRACTICE			
123.480	Training		Ge, Fr, It, Swiss-German
Powered-flight training			
122.205	Powered-flight training		Ge, Fr, It, Swiss-German
Mountain landing strips			
130.355	Mountain landing strips		Ge, Fr, It, Swiss-German
HANG GLIDERS			
123.430	Training		Ge, Fr, It, Swiss-German
130.930	For general use		
MIL FREQ			
135.480	For communications between CIV ACFT and MIL navigation equipment (Reserve-FREQ)		En, It
HELICOPTER			
130.355	Mountain frequency For TKOF and LDG or FLT below 150 m AGL		En
123.380	Coordination frequency for hospital helipads For TKOF and LDG		

3 **AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)**

ATIS is also AVBL at LSZH and LSGG AP via the Aircraft Communications Addressing and Reporting System (ACARS) data link, with SITA and ARINC as communication service providers. The reference used to implement this service is EUROCAE DOC ED-89.

The LSZH system is designed to handle	**and will reply by transmitting**
ATIS Request Arrival (ATR-A)	ARR ATIS message
ATIS Request Departure (ATR-D)	DEP ATIS message
ATIS Request Contract (ATR-C)*	will automatically TRANS updated ATIS messages*
ATIS Request En-route (ATR-E)	VOLMET message
ATIS Request Terminate (ATR-T)*	will terminate update contract*

* Automatic transmission of updated ATIS messages to ACFT under update contract shall cease “t1” MIN after the time at which the update contract has been established, or when an ATIS Request Terminate message is sent by the ACFT, whichever is earlier; “t1” has been established as 120 MIN.

3.1 **ATIS for arriving and departing ACFT**

ATIS messages containing both arrival and departure information contain the following elements in the order listed:

a) name of aerodrome;
b) arrival and/or departure indicator;
c) contract type, if communication is via D-ATIS;
d) designator;
e) time of observation, if appropriate;
f) type of approach(es) to be expected;
g) the runway(s) in use; status of arresting system constituting a potential hazard, if any;
h) significant runway surface conditions and, if appropriate, braking action;
i) holding delay, if appropriate;
j) transition level, if applicable;
k) other essential operational information;
l) surface wind direction and speed, including significant variations and, if surface wind sensors related specifically to the sections of runway(s) in use are available and the information is required by aircraft operators, the indication of the runway and the section of the runway to which the information refers;
m) *visibility and, when applicable, RVR and, if visibility/RVR sensors related specifically to the sections of runway(s) in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers;
n) *present weather;
o) *cloud below 1500 m (5000 ft) or below the highest minimum sector altitude, whichever is greater, cumulonimbus, if the sky is obscured, vertical visibility when available;
p) air temperature;
q) dew point temperature;
r) altimeter setting(s);
s) any available information on significant meteorological phenomena in the approach and climb-out areas including wind shear, and information on recent weather of operational significance;
t) trend forecast, when available, and;
u) specific ATIS instructions.

* Elements m), n) and o) are replaced by the term “CAVOK” when appropriate.

Note: Grenchen ATIS additionally broadcasts type of ATS provided.

3.2 **ATIS for arriving ACFT**

ATIS messages containing only arrival information contain the following elements of information in the order listed:

a) name of aerodrome;
b) arrival indicator;
c) contract type, if communication is via D-ATIS;
d) designator;
e) time of observation, if appropriate;
f) type of approach(es) to be expected;
g) main landing runway(s); status of arresting system constituting a potential hazard, if any;
h) significant runway surface conditions and, if appropriate, braking action;
i) holding delay, if appropriate;
j) transition level, if applicable;
k) other essential operational information
l) surface wind direction and speed, including significant variations and, if surface wind sensors related specifically to the sections of runway(s) in use are available and the information is required by aircraft operators, the indication of the runway and the section of the runway to which the information refers;
m) *visibility and, when applicable, RVR and, if visibility/RVR sensors related specifically to the sections of runway(s) in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers;
n) *present weather;
o) *cloud below 1500 m (5000 ft) or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility when available;
p) air temperature;
q) dew point temperature;
r) altimeter setting(s);
s) any available information on significant meteorological phenomena in the approach area including wind shear, and information on recent weather of operational significance;
t) trend forecast, when available; and
u) specific ATIS instructions.

*Elements m), n) and o) are replaced by the term “CAVOK” when appropriate.

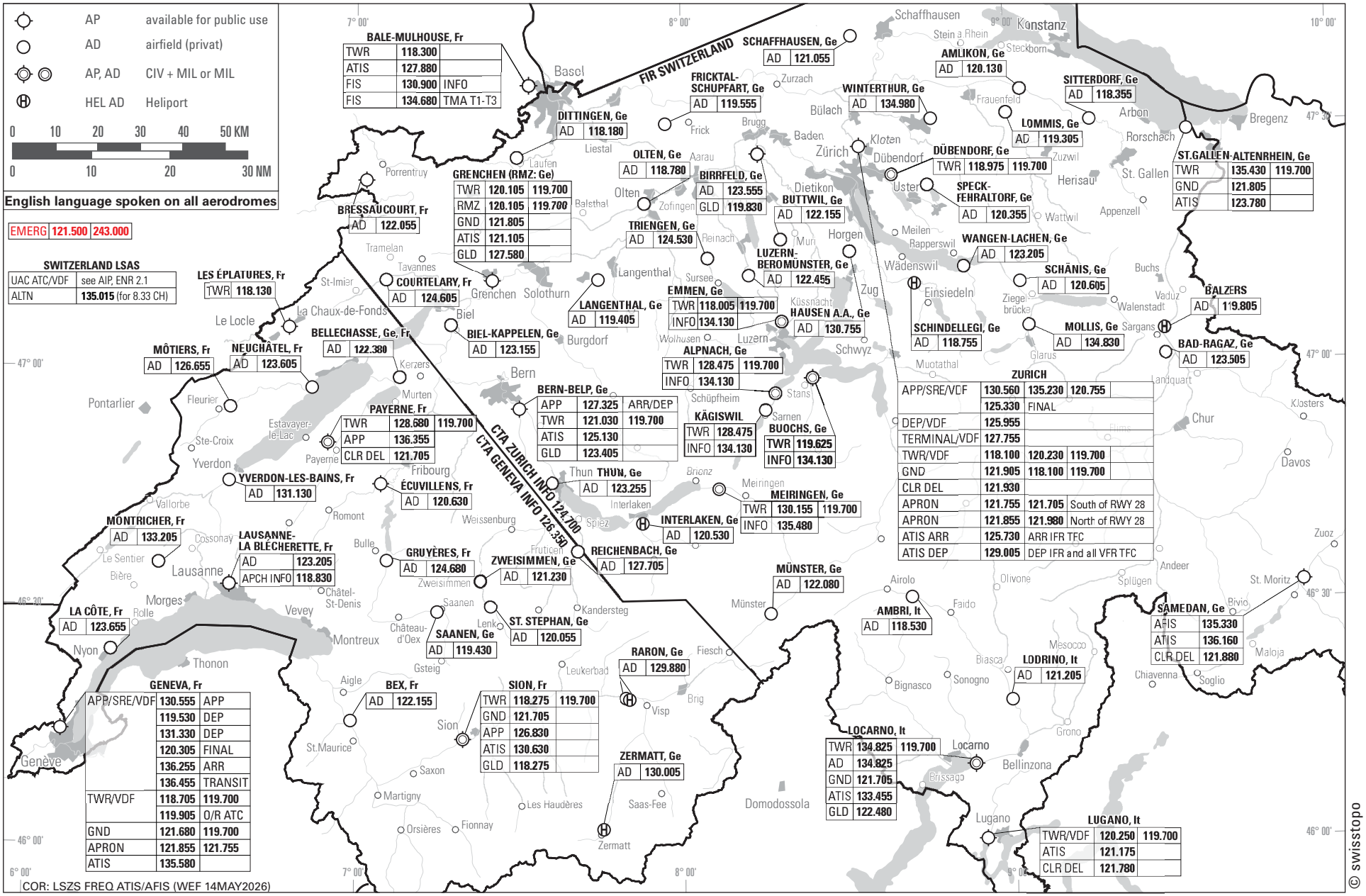
3.3 **ATIS for departing ACFT**

ATIS messages containing only departure information contain the following elements of information in the order listed:

a) name of aerodrome;
b) departure indicator;
c) contract type, if communication is via D-ATIS;
d) designator;
e) time of observation, if appropriate;
f) runway(s) to be used for take-off; status of arresting system constituting a potential hazard, if any;
g) significant surface conditions of runway(s) to be used for take-off and, if appropriate, braking action;
h) departure delay, if appropriate;
i) transition level, if applicable;
j) other essential operational information;
k) surface wind direction and speed, including significant variations and, if surface wind sensors related specifically to the sections of runway(s) in use are available and the information is required by aircraft operators, the indication of the runway and the section of the runway to which the information refers;
l) *visibility and, when applicable, RVR and, if visibility/RVR sensors related specifically to the sections of runway(s) in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers;

m) *present weather;
n) *cloud below 1500 m (5000 ft) or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility when available;
o) air temperature;
p) dew point temperature;
q) altimeter setting(s);
r) any available information on significant meteorological phenomena in the climb-out area including wind shear;
s) trend forecast, when available; and
t) specific ATIS instructions.

*Elements l), m) and n) are replaced by the term “CAVOK” when appropriate.



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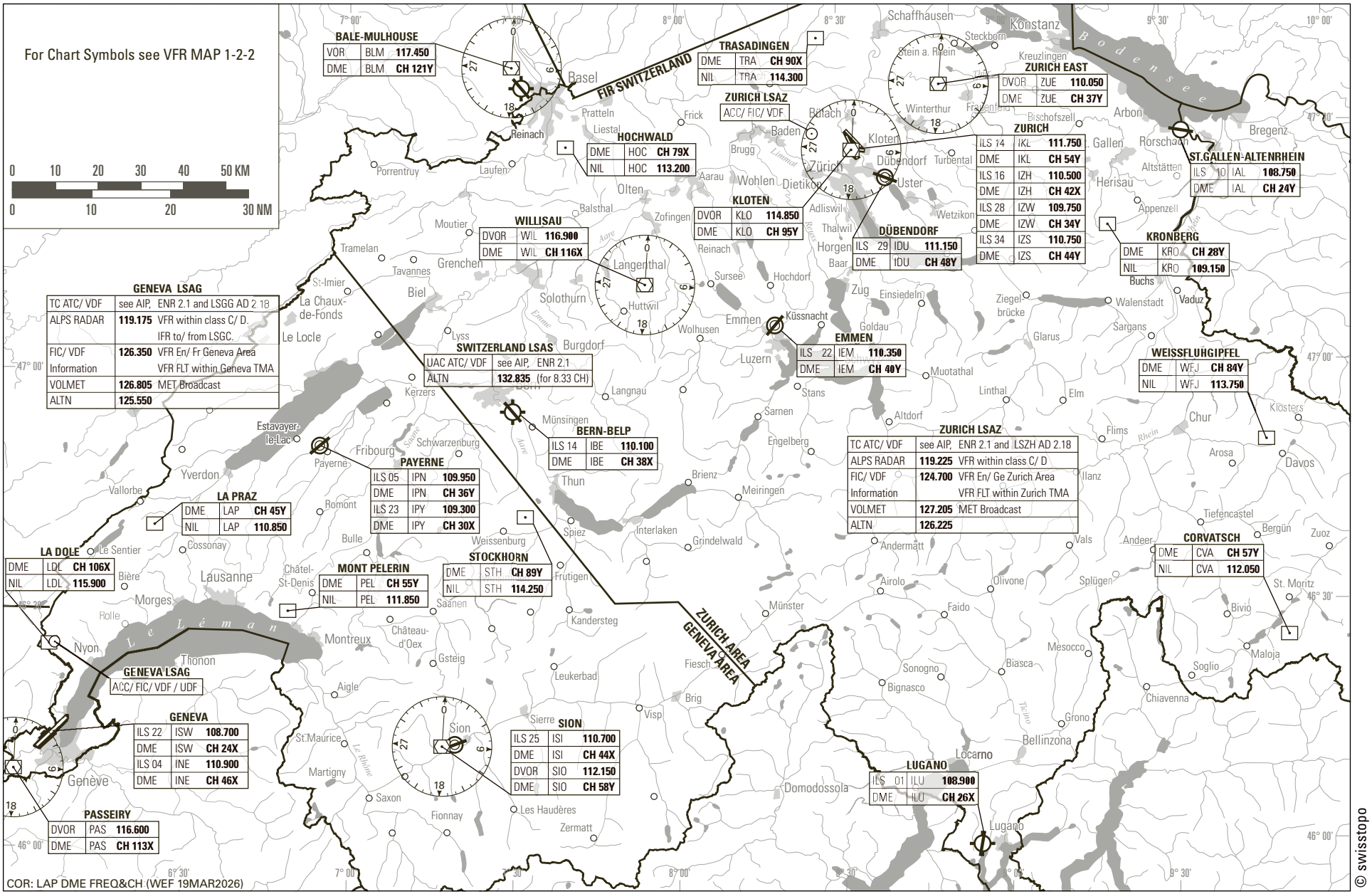

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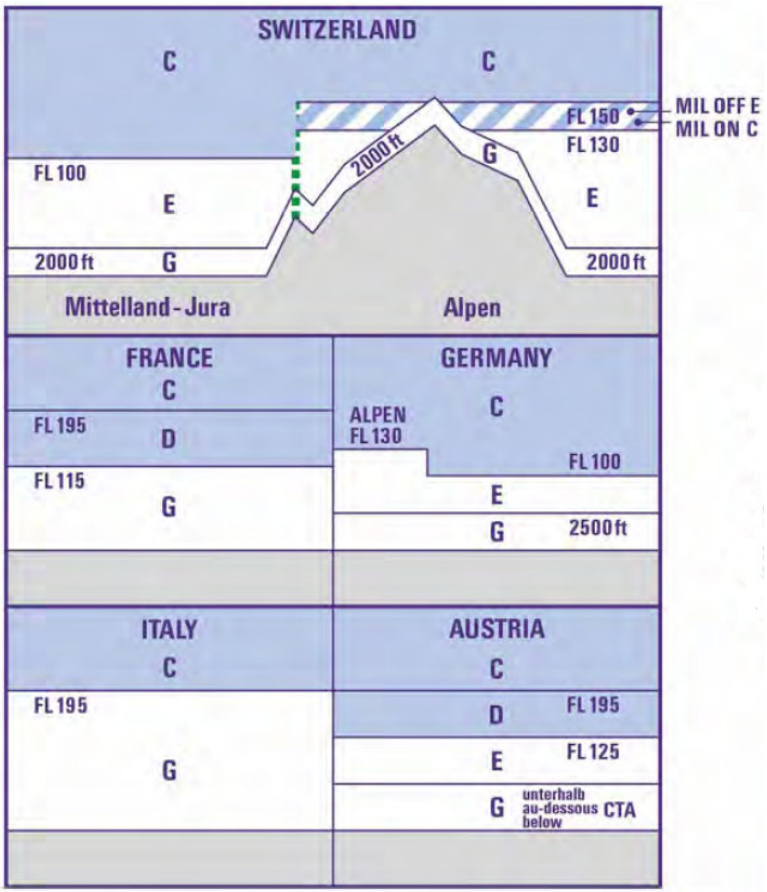
1 **Airspace Allocation and Classes**

Within the FIR and UIR, airspace is divided into four classes C, D, E and G and largely corresponds to the ICAO recommendations. The three other ICAO airspace classes A, B and F, which have also been adopted by Switzerland, are available but currently no part of Swiss airspace has been allocated to these classes. The airspace classes C, D and E are controlled airspace. The airspace allocations are described in the following chapters. Remarks, descriptions and procedures for the individual airspaces within each allocation are to be found in AIP ENR 2.1.

1.1 **Lower limits TMA and AWY**

North of the separation line Central Plateau/Alps the lower limits indicated on the chart apply. South of the separation line Central Plateau/Alps the lower limits indicated on the chart apply or, 1000 ft AGL, depending upon which is greater.

1.2 **General airspace classification**



1.3 **Class C - Controlled airspace**

The conditions for class C are set out in the following.

	VFR
Separation provided	VFR to IFR
Guaranteed services	ATC for separation to IFR VFR traffic information (and alternative recommendations upon request)
VMC Minima	**At FL 100 and above:** Visibility 8 km Distance from clouds Horizontal 1500 m Vertical 1000 ft
	Below FL 100: Visibility 5 km Distance from clouds: Horizontal 1500 m Vertical 1000 ft
Speed limitation	250 kt IAS below FL 100
Radio communication	Continuous two-way
ATC Clearance	Required

1.4 **Class D - Controlled airspace**

The conditions for class D are set out in the following:

	VFR
Separation provided	No
Guaranteed services	Traffic information between IFR/VFR and VFR/VFR (and alternative recommendation if requested)
VMC Minima	**At FL 100 and above:** Visibility 8 km Distance from clouds Horizontal 1500 m Vertical 1000 ft
	Below FL 100: Visibility 5 km Distance from clouds Horizontal 1500 m Vertical 1000 ft
Speed limitation	250 kt IAS below FL 100
Radio communication	Continuous two-way
ATC Clearance	Required

1.5 **Class E - Controlled airspace**

The conditions for class E are set out in the following:

	VFR
Separation provided	No
Guaranteed services	Traffic information as far as practical
VMC Minima	**At FL 100 and above:** Visibility 8 km Distance from clouds Horizontal 1500 m Vertical 1000 ft
	Below FL 100: Visibility 5 km Distance from clouds Horizontal 1500 m Vertical 1000 ft
Speed limitation	250 kt IAS below FL 100
Radio communication	Not required*
ATC Clearance	Not required

* Pilots shall establish two-way communication on the appropriate channel in FIZ and make blind calls on the appropriate channel to report intentions and changes in altitude and direction in RMZ.

1.6 **Class G - Uncontrolled airspace**

The conditions for class G are set out in the following:

	VFR
Separation provided	No
Guaranteed services	FIS
VMC Minima	**Above 1000 ft AGL up to 2000 ft AGL:** Visibility 5 km* Distance from clouds Horizontal 1500 m Vertical 1000 ft If a transponder is being operated, clear of cloud and with the surface in sight
	GND up to 1000 ft AGL: Visibility 5 km* clear of cloud and with the surface in sight
Speed limitation	250 kt IAS below FL 100
Radio communication	Not required **
ATC Clearance	Not required

* (a) A minimum flight visibility of 1500 m is permitted for the following flights:

(1) For aircraft flying at a speed of 140 kt IAS or less to give adequate opportunity to observe other traffic or any obstacles in time to avoid collision

(2) For flights in circumstances in which the probability of encounters with other traffic would normally be low, e.g. in areas of low volume traffic and for areal work at low altitudes.

(b) Helicopters may operated with a minimum visibility of 800 m if manoeuvred at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision. Flights may be performed with a minimum visibility below 800 m under special circumstances, such as medical emergencies, search and rescue missions and flights of a fire-fighting nature.

** Pilots shall establish two-way communication on the appropriate channel in FIZ and make blind calls on the appropriate channel to report intentions and changes in altitude and direction in RMZ.

IFR traffic permitted in airspace class G only when operated on a published instrument flight procedure.

1.7 **New LFN PinS Chart in the Skybriefing En-Route Charts**

Apart from VFR traffic, there is also IFR traffic in airspace classes E and G. This includes the Low Flight Network (LFN) which, as the name implies, leads to a situation where IFR traffic may be encountered at a lower altitude. The use of the LFN is restricted to helicopters in possession of the relevant licence for LFN which, currently, involves the REGA and Swiss Air Force. The LFN comprises a route network and subsequent IFR approach and departure procedures (Point in Space, PinS) for helipads such as those found at hospitals and military infrastructures. The Skybriefing "LFN PinS Chart" (https://skybriefing.com/enroute-charts-ch) shows a representation of the LFN routes currently in existence as well as approaches and departures at so-called PinS for helipads at hospitals and military infrastructures.

For VFR airspace users, this means that IFR flights may also be encountered at lower altitudes on LFN routes. The rules in the corresponding airspace apply to all pilots, in other words, "see and avoid" also applies for IFR traffic. The difference is that helicopters in the Low Flight Network do not have to adhere to the visual meteorological conditions (VMC) and, for example, are therefore permitted to fly through clouds. Air traffic control is not responsible ensuring separation between helicopters on the LFN and other traffic. Information about potential IFR traffic can be obtained from the flight information service (contact FIC). Maintenance of cloud separation, as well as operation of the transponder if one is available, is vital for the safety of all airspace users. Maintenance of the semi-circular rule for powered VFR traffic is a further important factor for flight safety.

When preparing for a flight, the LFN PinS chart should help to see how the routes are distributed and to plan accordingly. The charts are published in https://www.skybriefing.com/lfn-pins-chart-ch

and integrated in the aeronautical publications and thus updated at regular intervals. They are intended to raise the awareness of airspace users with regard to these IFR flights and contribute to general safety. The LFN PinS chart is not to be used for operational purposes. All LFN procedures may only be used by certified operators.

Information about using the chart: If the chart is opened using Adobe Reader, specific information can be selected or deselected to take account of the user's requirements. Moreover, the chart is vector-based meaning that the zoom function can be used to view a specific section without any loss in quality

2 **Transponder Mandatory Zone North East - TMZ NE**

Within TMZ NE, all aircraft conducting VFR flights must carry a Mode S transponder of at least Level 2 with SI code and elementary surveillance functionality and operate with the transponder code 7000 or another code as assigned or designated by ATC or FIC.

Hang gliders, parachutes and model aircraft (excluding drones) are not required to carry and operate a transponder.

Skyguide can authorise exemptions from transponder operation in the TMZ NE via radio, if operational requirements allow. Where an exemption is granted, pilots must maintain a two-way radio communication with Alps Radar at all times. They must follow the ATCO's instructions at all times and report when leaving the TMZ. If the operational situation so requires, authorisation may be revoked by the ATCO at any time.

The FOCA may, in individual cases and in consultation with Skyguide, authorise exemptions from the requirement to carry and operate a transponder for flights with drones (model aircraft in accordance with Art. 14 of the DETEC Ordinance on Special Category Aircraft [OSCA]), kites, parasail wings and tethered balloons.

For special events such as air shows, aerobatics and glider training weeks, the FOCA may, in consultation with Skyguide, grant exemptions from the obligation to operate a transponder by establishing a temporary danger area (LSD).

Radio listening watch

Radio listening watch serves to further increase flight safety and improve pilot's situational awareness. The ATCO can either broadcast information regarding IFR flights taking off or landing, or, in the event of a potential conflict, address VFR pilots specifically in order to clarify their intentions and/or to provide traffic information.

Voluntary radio listening watch procedure in the TMZ Northeast (TMZ NE)

Voluntary listening for the following aircraft operating under VFR:

- Motorised aircraft
- Gliders
- Balloons

Prior to entering the TMZ NE, the VFR pilot sets transponder code 2677 and monitors the ALPS RADAR frequency 119.925 MHz.

The VFR pilot shall neither make a radio check nor an initial call. Communication is established by the ATCO if necessary.

After leaving the TMZ NE, the ALPS RADAR frequency is left without logging off and the

transponder is set to code 7000 or another operationally prescribed code.

Radio communication between the ATCO and the VFR pilot is in English or German.

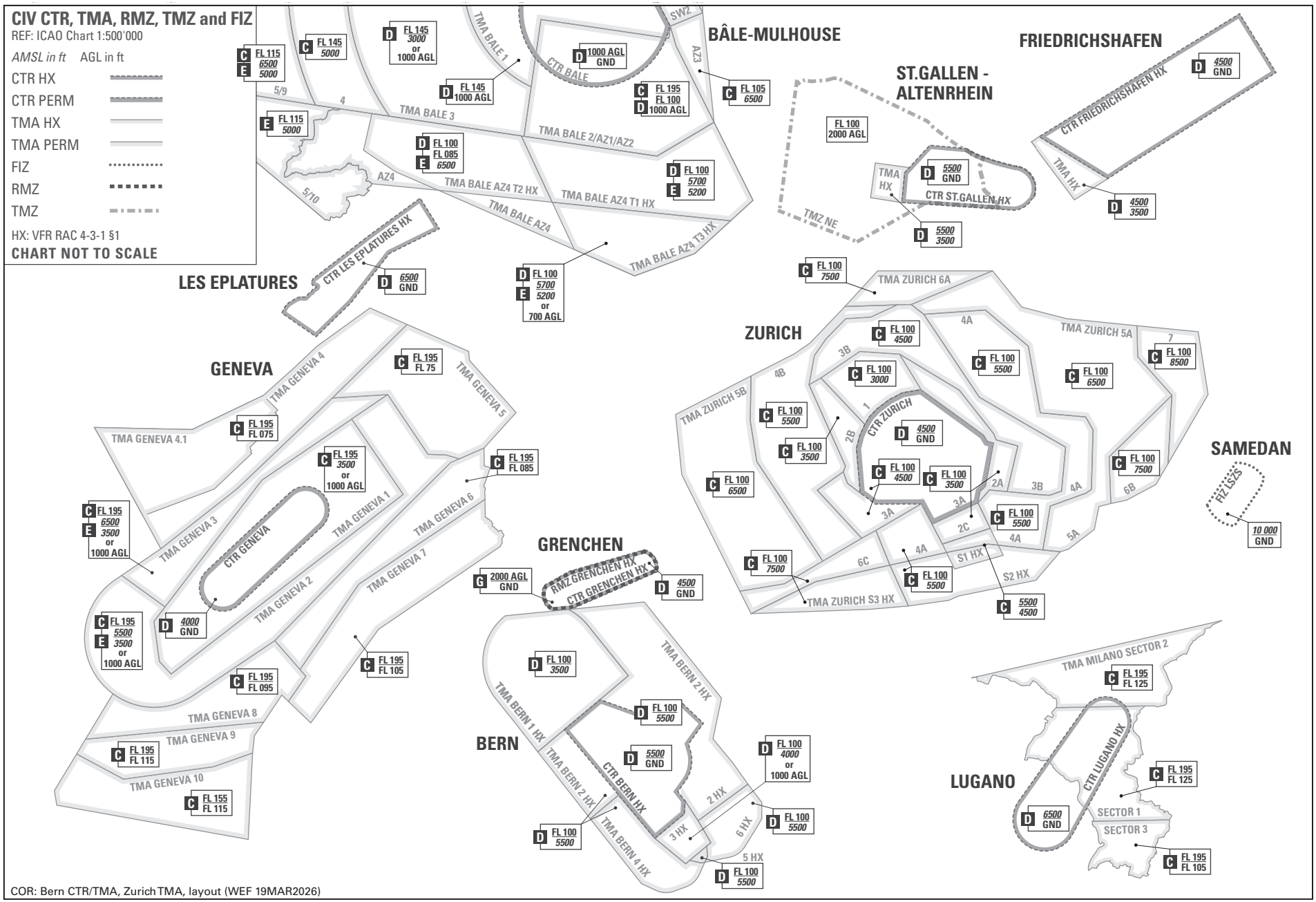
FIC Zurich procedure

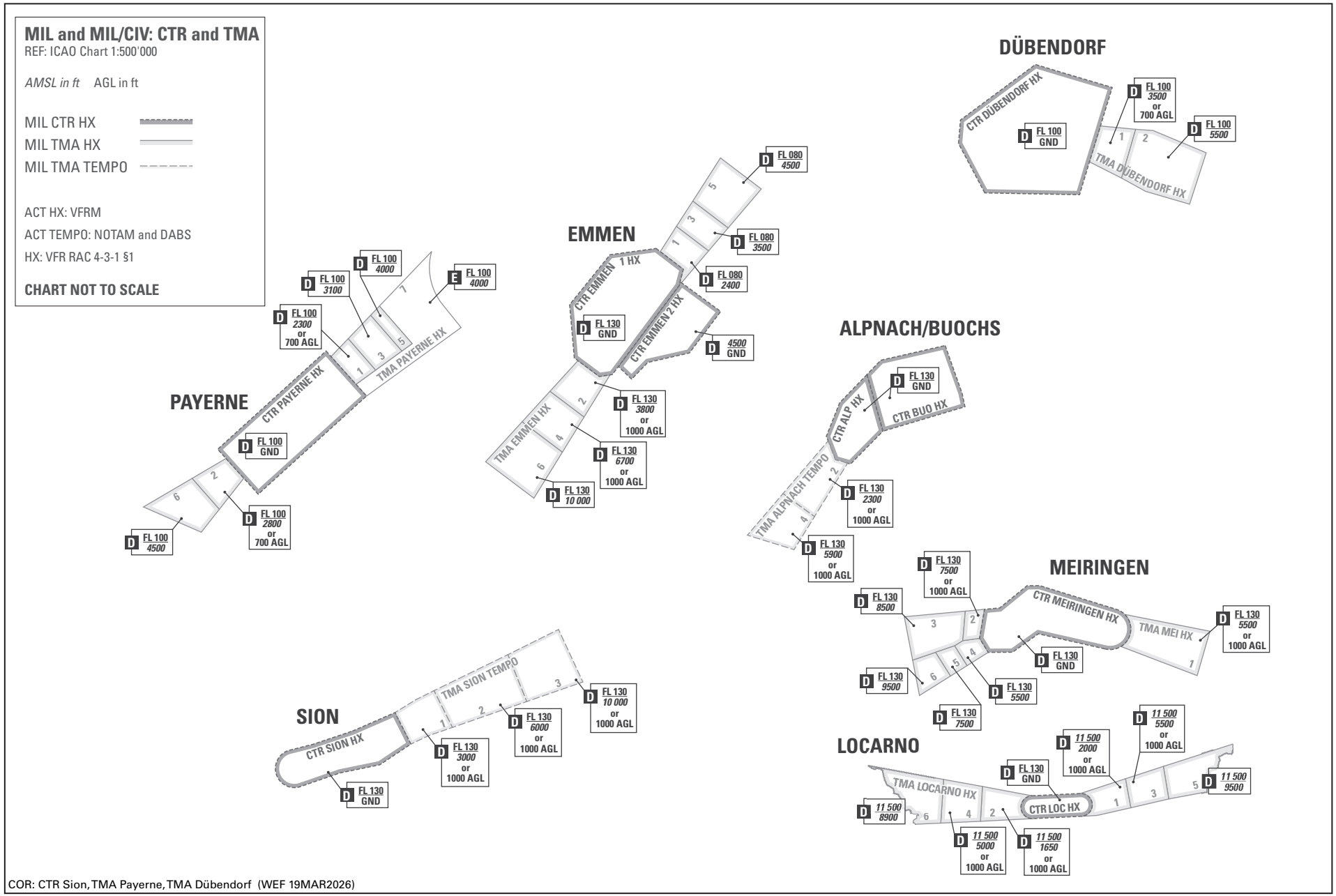
VFR pilots already in contact with FIC Zurich (Zurich Information) 124.700 MHz may remain on this frequency while flying through the TMZ NE. The pilot notifies the FIC Zurich about the intentions and keeps the transponder code assigned by the FIC. It is thus not necessary to set transponder code 2677 or ALPS RADAR frequency 119.925 MHz.

A VFR pilot in contact with FIC Zurich wishing to change to the radio listening watch procedure must first log off at FIC Zurich before changing to the Alps Radar frequency and setting the transponder code 2677.

Special cases / exceptions

Voluntary radio listening watch does not apply to flights for which an exemption from the transponder obligation has been granted by means of LSD (see above para. 2, last section) and which fall under this obligation. There is also no requirement to contact the FIC Zurich.


CIV CTR, TMA, RMZ, TMZ and FIZ
REF: ICAO Chart 1:500'000
AMSL in ft AGL in ft
CTR HX
CTR PERM
TMA HX
TMA PERM
FIZ
RMZ
TMZ
HX: VFR RAC 4-3-1 §1
CHART NOT TO SCALE
BÂLE-MULHOUSE
FRIEDRICHSHAFEN
ST.GALLEN - ALTENRHEIN
LES EPLATURES
GENEVA
ZURICH
SAMEDAN
GRENCHEN
BERN
LUGANO
TMA BALE 1
TMA BALE 2/AZ1/AZ2
TMA BALE 3
TMA BALE AZ4
TMA BALE AZ4 T2 HX
TMA BALE AZ4 T1 HX
TMA BALE AZ4 T3 HX
CTR BALE
CTR FRIEDRICHSHAFEN HX
CTR ST.GALLEN HX
TMZ NE
CTR LES EPLATURES HX
TMA GENEVA 1
TMA GENEVA 2
TMA GENEVA 3
TMA GENEVA 4
TMA GENEVA 4.1
TMA GENEVA 5
TMA GENEVA 6
TMA GENEVA 7
TMA GENEVA 8
TMA GENEVA 9
TMA GENEVA 10
CTR GENEVA
TMA ZURICH 4A
TMA ZURICH 5A
TMA ZURICH 5B
TMA ZURICH 6A
CTR ZURICH
TMA ZURICH S3 HX
S1 HX
S2 HX
FIZ LSZS
RMZ GRENCHEN HX
CTR GRENCHEN HX
TMA BERN 1 HX
TMA BERN 2 HX
TMA BERN 4 HX
CTR BERN HX
TMA MILANO SECTOR 2
CTR LUGANO HX
SECTOR 1
SECTOR 3
COR: Bern CTR/TMA, Zurich TMA, layout (WEF 19MAR2026)



COR: CTR Sion, TMA Payerne, TMA Dübendorf (WEF 19MAR2026)

1 **Flight restriction areas**

Restricted areas are airspaces of defined dimensions over land or territorial waters of a country in which the flight of aircraft is restricted by certain conditions (Art. 2 (111) of the Implementing Regulation (EU) No. 923/2012 (SERA Regulation)).

The respective conditions are set out under the heading “Conditions of Use”.

Designation and name	Type of activity	Conditions of use	Activation hours (LT) Remarks
1	2	3	4
LSR2 **HOHGANT**	MIL aviation activity	Entry prohibited if active	Activation hours: see DABS/NOTAM Status request (active / inactive) via ZURICH INFORMATION 124.700 MHz or Telephone No. +41 (0) 44 813 31 10
LSR3 **SPEER**	MIL aviation activity	Entry prohibited if active	Activation hours: see DABS/NOTAM Status request (active / inactive) via ZURICH INFORMATION 124.700 MHz or Telephone No. +41 (0) 44 813 31 10
LSR4 **LAC DE NEUCHÂTEL**	Aerial firing	Entry prohibited if active (Exception HEMS flights with a special procedure)	01 JAN - 31 MAY, 01 OCT - 31 DEC MON - FRI 0900 - 1200 1330 - 1600 Daily activation: see DABS/NOTAM Status request (active / inactive) via TWR Payerne 128.680 MHz. Central telephone information office for status of the zones: Telephone No. +41 (0) 44 813 31 10
LSR4A **LAC DE NEUCHÂTEL**	Aerial firing	Entry prohibited if active (Exception HEMS flights with a special procedure)	
LSR5 **BIERE**	MIL UAS and / or FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via GENEVA INFORMATION 126.350 MHz or: Telephone No. +41 (0) 44 813 31 10

Designation and name	Type of activity	Conditions of use	Activation hours (LT) Remarks
1	2	3	4
LSR6 **AXALP**	Aerial firing	Entry prohibited if active (Exception HEMS flights with a special procedure)	01 JAN - 31 MAY, 01 OCT - 31 DEC MON - FRI 0845 - 1630 Daily activation see DABS/NOTAM Status request (active / inactive) via 130.155 MHz or Telephone No. +41 (0) 44 813 31 10
LSR7 **HONGRIN**	MIL UAS and / or FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via GENEVA INFORMATION 126.350 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR8 **DAMMASTOCK**	Air-to-air firing	Entry prohibited if active (Exception HEMS flights with a special procedure)	Activation hours: see DABS/NOTAM Status request (active / inactive) via 128.380 MHz or Telephone No. +41 (0) 44 813 31 10 Callsign: ROMEO 8
LSR8A **DAMMASTOCK**	Air-to-air firing MIL aviation activity	Entry prohibited if active (Exception HEMS flights with a special procedure)	
LSR9 **HINTERRHEIN**	MIL UAS and / or FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR10 **FÄRMELBERG**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via GENEVA INFORMATION 126.350 MHz or: Telephone No. +41 (0) 44 813 31 10

Designation and name	Type of activity	Conditions of use	Activation hours (LT) Remarks
1	2	3	4
LSR11 **ZUOZ/S-CHANF**	Anti-aircraft firing	Entry prohibited if active (Exception HEMS flights and ARR DEP from LSZS/LSXM via AFIS LSZS)	Activation hours: see DABS/NOTAM Status of the area (ACT/not ACT) may be requested via 135.480 MHz or: Telephone No. +41 (0) 44 813 31 10 Coordination of ARR and DEP LSZS via Samedan Information 135.330 MHz
LSR11A **ZUOZ/S-CHANF**	Anti-aircraft firing MIL aviation activity	Entry prohibited if active (Exception HEMS flights and ARR DEP from LSZS/LSXM via AFIS LSZS)	
LSR12 **SIMPLON**	MIL UAS and / or FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR13 **AXALP**	Aerial firing	Entry prohibited if active (Exception HEMS flights with a special procedure)	Activation hours: Calendar week 41 see DABS/NOTAM Status request (active / inactive) via 130.155 MHz or Telephone No. +41 (0) 44 813 31 10
LSR14 **SÄNTIS**	MIL UAS and / or FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR15 **ENTLEBUCH**	MIL UAS ACT expect ADS 15 / aircraft activity	Entry for VFR flights is subject to ATC clearance by EMMEN RADAR on 125.435 MHz. Expect level restrictions.	Activation hours: see DABS and NOTAM http://www.skybriefing.com Status request (active / inactive) via ZURICH INFORMATION 124.700 MHz or EMMEN TWR 118.005 MHz or Telephone No. +41 (0) 44 813 31 10

Designation and name	Type of activity	Conditions of use	Activation hours (LT) Remarks
1	2	3	4
LSR16 **ISONE 1**	MIL UAS and / or FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR17 **ISONE 2**	MIL UAS and / or FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR18 **BURE**	MIL UAS ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR31 **GADMEN**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR37 **SUSTENPASS**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10

Designation and name	Type of activity	Conditions of use	Activation hours (LT) Remarks
1	2	3	4
LSR38 **GLAUBENBERG WASSERFALLEN**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR39A **HEITLI**	Pilatus Tests	Within active LSR39A-C the rules according ICAO Airspace Echo apply. Additionally, the following rules apply: **Entry into active LSR39A-C is subject to ATC clearance.**	Activation hours are published by NOTAM and DABS. Additionally, information about active areas may be obtained from ZURICH INFORMATION 124.700 MHz or Telephone No. +41 (44) 813 31 10 Responsible ATS Unit: LSR39A: Alpnach TWR 128.475 MHz LSR39B-C: Buochs TWR 119.625 MHz Inside an active LSR39A-C, a continuous two-way radio contact with the responsible ATS unit is required. The following Air Traffic Control Service is provided: Traffic information between VFR flights IFR/VFR traffic information (and traffic avoidance advice on request) Pilatus test aircraft may request separation from IFR and VFR traffic to allow the following operations: MAX IAS 450kt below 10000ft AMSL Reduced distances to clouds: vertical 50m, horizontal 100m
LSR39B **BRISEN**			
LSR39C **STOOS**			
LSR40 **WASSERFALLEN**	Aerial firing	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR40A **WASSERFALLEN**			
LSR40B **WASSERFALLEN**			

Designation and name	Type of activity	Conditions of use	Activation hours (LT) Remarks
1	2	3	4
LSR41 **CHALCHTAL**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR45 **CHLIALP**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR46 **MÄTTELI**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR47 **VAL PIANA CAVAGNOLO**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR48 **MUNDAUN NOVA**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10

Designation and name	Type of activity	Conditions of use	Activation hours (LT) Remarks
1	2	3	4
LSR49 **VAL CRISTALLINA**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR50 **VAL NALPS**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR51 **VAL RONDADURA**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR52 **VAL CURTEGNS**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR53 **ALBULA ALPEN E**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10

Designation and name	Type of activity	Conditions of use	Activation hours (LT) Remarks
1	2	3	4
LSR57 **ROSSBODEN RHEINSAND**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR58 **FRAUENFELD**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
LSR59 **WICHLEN**	FRNG ACT	Entry not permitted for VFR and IFR FLT	Activation hours: see DABS/NOTAM http://www.skybriefing.com Status of area (active / not active) may be requested via ZURICH INFORMATION 124.700 MHz or: Telephone No. +41 (0) 44 813 31 10
Daily Airspace Bulletin Switzerland (DABS): VFRM GEN 1-0 § 4.2			

AERIAL SPORTING AND RECREATIONAL ACTIVITIES

1 Glider flying

Two types of LSR for gliders are defined:

LSR for gliders located outside TMA;
LSR for gliders located within TMA;
LSR for gliders located within TMA.

Apart from the localization of these LSR for gliders, one of the other main difference between these areas for gliders is laying in the associated distance to clouds to be respected.

1.1 LSR for Gliders outside TMA

A restricted area is an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the FLT of ACFT is restricted in accordance with certain specified conditions.

The restricted areas are tabulated in § 8.1 and depicted on the aeronautical charts. The restrictions which apply to each individual area are specified in the column “Remarks” of the corresponding area.

These LSR for gliders, as depicted on the GLDC 1:350 000, are permanently active from MAR 01 to OCT 31 from sunrise until sunset (exempt are LSR28, LSR30, part of LSR44 and the AMC / Locarno Flight OPS Manageable parts).

Within these restricted areas, gliders have to respect the conditions of use of airspace class E. However, within these types of restricted areas, gliders may fly at vertical distance of at least 50 m below clouds and a horizontal distance of at least 100 m from clouds.

Flights other than glider flights can, according to the rules of airspace E and VFR only, enter these LSR for gliders. They should note the special rules given to glider flights (glider operations closer to clouds).

1.2 LSR for gliders within TMA

Areas of defined dimensions, within airspace class C and D. Once activated, the airspace class within these LSR for gliders changes to E. Airspace users are required to (1) monitor a dedicated frequency or to (2) maintain two-way- radio communication with a designated ATS unit.

The airspace is mainly used by gliders (incl. hang-gliders), self-sustaining gliders, self-launching gliders and their tow aircraft.

Other VFR flights (incl. parachute jumping) may enter a LSR for gliders within TMA with approval from the designated ATS unit. Traffic information will be provided as far as practicable. IFR flights are not permitted.

Activation and deactivation procedures, are subject to local agreements between the ATS authority and airspace users (REF: 8.2 and glider flying chart GLDC 1:350 000 / Area Charts Geneva and Zurich 1:250 000).

Note: For glider areas over French delegated territory,
(REF:§ 7 and glider flying chart GLDC 1:350 000).

1.3 LSR for gliders within CTR

Areas with set dimensions within the CTRs. Following activation, the special regulations set out for each of these restricted areas that are the subject of local agreements between ATS authorities and the airspace users shall apply.

1.4 Glider Sectors

Areas of defined dimensions in CTRs, which are reserved exclusively for gliders
(incl. hang-gliders), self- sustaining gliders, self-launching gliders and their tow aircraft.

Within glider sectors, once activated, the rules of airspace class E apply. Vertical and lateral dimensions also are subject to local agreements between the ATS authority and airspace users.

2 **Cloud flying procedure**

Flying in clouds is defined as an instrument flight according to Art. 25 VRV-L.

Conditions for cloud flying **(ATC clearance is required for each cloud flight)**

- outside CTR / TMA
- outside airspace Class G
- outside LSR for gliders
- outside P/R/D areas
- SR-SS, ATC clearance required for every procedure for flying in clouds
- Transponder required
- Two-way radio communications required

2.1 **Authorisation procedures**

Clearance to perform a flight in clouds can be requested on the following radio frequencies:

- ALPS RADAR 119.225 MHz En, Zurich Information FREQ 124.700 MHz Ge/En.
- ALPS RADAR 119.175 MHz En, Geneva Information FREQ 126.350 MHz Fr/En.

Each request shall contain the following information:

- Call sign,
- Flight position,
- Planned upper level,
- Planned route,
- Planned time frame.

3 **Cross-country, cross-border glider flights**

In accordance with RAC 4-2-1, §1.4, the cross-country flight plan form issued by the Federal Office of Civil Aviation (FOCA) for cross-border glider flights must be carried where states do not require a flight plan.

At present, both Austria and Germany do not require a flight plan for gliders.

The cross-country flight plan form can be obtained from:

Federal Office of Civil Aviation

CH-3003 Bern

Email: sbfl@bazl.admin.ch

Website for glider pilots: https://www.bazl.admin.ch/en/flight-school

If a flight plan has not been filed, an alerting service will be subject to a delay. Flight plans are monitored and an emergency will be declared if an arrival report has not been submitted (SERA.4020).

3.1 **Additional Glider Areas**

Applications to establish additional restricted areas for gliders for a limited period are to be sent to the Federal Office of Civil Aviation (FOCA), Section Airspace, 3003 Bern, at least 20 weeks before the date when they should take effect.

4 **VFR Flights in Airspace C and D**

REF: VFR RAC 4-3 § 5 and 6

5 **Special frequencies for glider flying**

REF: VFR COM 1-1 § 2

6 **Powered gliders**

For powered gliders with running engine the traffic rules for aircraft apply, for powered gliders with the engine off the traffic rules for gliders are applicable.
A towing vehicle (powered aircraft tows glider) is considered to be a powered aircraft.

7 **List of glider areas (over French delegated territory)**

Designation and Name	Operator User TEL Nr	Activation hours: Remarks
TMA Lyon part 6.1 **(Oyonnax North)**	Phone: +41 (0) 22 747 13 91 GLD ATIS **124.755** MHz	Advise ALPS RADAR **119.175** MHz. Deactivated as written in the protocol. Info available on GLD ATIS **124.755** MHz.When deactivated, mandatory monitoring on **121.130** MHz.
LF R 135 **(Oyonnax South)**		Clearance by ALPS RADAR **119.175** MHz required. For transit flights only.
TMA Geneva part 4.1 **(St-Claude North)**	Phone: +41 (0) 22 747 13 91 GLD ATIS **124.755** MHz	Advise ALPS RADAR **119.175** MHz. Deactivated as written in the protocol. Info available on GLD ATIS **124.755** MHz.When deactivated, mandatory monitoring on **121.130** MHz.
LF R 219 **(St-Claude South)**		Clearance by ALPS RADAR **119.175** MHz required. For transit flights only.

8 List of restricted areas for gliders

8.1 Restricted areas for gliders outside TMA

LSR FOR GLIDERS OUTSIDE TMA
(TEMPORARY RESTRICTED AREAS ACT 01 MAR - 31 OCT)

Rules of Airspace E apply.

Based on Article 26 of the "Ordinance on Traffic Regulations for Aircraft (VRV-L)" reduced distances to clouds are permitted for gliders:

- vertical distance to clouds: 50 m
- horizontal distance to the clouds 100 m

ACT from 01 MAR until 31 OCT SR-SS (exceptions see RMK for each LSR for gliders outside TMA and NOTAMs)

NO IFR traffic is permitted in these LSRs
Other defined airspaces excluded (e.g. CTRs, TMAs, P/R/D areas)

A VFR entry into this type of LSR is approved to all airspace users;
one shall take notice of gliders operating closer to clouds

REF AIP SWITZERLAND ENR 5.5 and Glider Chart for Switzerland 1:350 000

Designation and Name	Type of activity	Conditions for use	Activation hours: Remarks
LSR20 **GRUYERES**	Gliding	No IFR flights	Sunrise - Sunset
LSR21 **UNTERWALLIS N**	Gliding	No IFR flights	Sunrise - Sunset
LSR22 **BERNER OBERLAND**	Gliding	No IFR flights	Sunrise - Sunset
LSR23 **UNTERWALLIS S**	Gliding	No IFR flights	Sunrise - Sunset
LSR24 **WALLIS S**	Gliding	No IFR flights	Sunrise - Sunset MIL OFF, FL 150 (4550 m)
LSR25 **WILDHORN**	Gliding	No IFR flights	Sunrise - Sunset MIL OFF
LSR26 **CHARBONNIERES**	Gliding	No IFR flights	Sunrise - Sunset
LSR27 **NEUCHATEL**	Gliding	No IFR flights	Sunrise - Sunset
LSR28 **YVERDON**	Gliding	No IFR flights	Sunrise - Sunset MIL OFF
LSR29 **TAVANNES**	Gliding	No IFR flights	Sunrise - Sunset Deactivation possible at D-1 prior 15:00 LT for SAR/HEMS if within the lateral dimensions of LSR33 the cloud cover is forecast 6/8 or greater with a cloud base between GND and *5000 ft AMSL*.
LSR30 **NEUVEVILLE WEST**	Gliding	No IFR flights	Sunrise - Sunset MIL OFF
LSR32 **GOMS**	Gliding	No IFR flights	Sunrise - Sunset MIL OFF, FL 150 (4550 m)

Designation and Name	Type of activity	Conditions for use	Activation hours: Remarks
LSR33 **BALSTHAL**	Gliding	No IFR flights	Sunrise - Sunset Deactivation possible at D-1 prior 15:00 LT for SAR/HEMS if within the lateral dimensions of LSR33 the cloud cover is forecast 6/8 or greater with a cloud base between GND and *5000 ft AMSL*.
LSR34 **CAMPO**	Gliding	No IFR flights	Sunrise - Sunset TEMPO available: MIL ON Activation required by Chief Flight Operations Locarno Phone:+41 (0) 58 481 24 68 Request for clearance TIL 0930 LT MIL OFF, FL 130 (3950 m)
LSR35 **NEUVEVILLE EAST**	Gliding	No IFR flights	Sunrise - Sunset MIL OFF
LSR36 **KANDERGRUND**	Gliding	No IFR flights	Sunrise - Sunset
LSR42 **CHURFIRSTEN W**	Gliding	No IFR flights	Sunrise - Sunset
LSR43 **CHURFIRSTEN E**	Gliding	No IFR flights	Sunrise - Sunset
LSR44 **OBERALP**	Gliding	No IFR flights	Sunrise - Sunset TEMPO available: MIL ON Activation required by Chief Flight Operations Locarno Phone:+41 (0) 58 481 24 68 Request for clearance TIL 0930 LT MIL OFF, FL 130 (3950 m)
LSR54 **CALANDA**	Gliding	No IFR flights	Sunrise - Sunset MIL OFF, FL 150 (4550 m) or *15000 ft AMSL* based on LSZS QNH whichever is lower
LSR55 **SERRA**	Gliding	No IFR flights	Sunrise - Sunset MIL OFF, FL 150 (4550 m)
LSR56 **MUTTLER**	Gliding	No IFR flights	Sunrise - Sunset MIL OFF, FL 150 (4550 m)
LSR62 **MISOX**	Gliding	No IFR flights	Sunrise - Sunset TEMPO available: MIL ON Activation required by Chief Flight Operations Locarno Phone:+41 (0) 58 481 24 68 Request for clearance TIL 0930 LT MIL OFF, FL 150 (4550 m)

8.2 **Restricted areas for gliders within TMA**

LSR FOR GLIDERS WITHIN TMA

Airspace class within these LSR for gliders within TMA changes to E when active.
Standard distances to clouds apply:

- vertical distance to clouds: 300 m
- horizontal distance to the clouds 1500 m

NO IFR traffic is permitted in these LSRs

Other VFR TFC into this type of LSR for gliders is allowed with approval from the designated ATS unit

REF AIP SWITZERLAND ENR 5.5 and Glider Chart for Switzerland 1:350 000

Designation and Name	Operator User TEL Nr	Activation hours: Remarks
LSR69T **SCHAFFHAUSEN EAST**	Phone: +41 (0) 43 931 69 61	Approval request by head of aerodrome Schaffhausen with TWR Zurich; Phone: +41 (0) 43 931 69 61 or exceptionally by pilot in flight with FIC Zurich **124.700** MHz. Activation times available on Glider-Info on **120.880** MHz. Keep a listening watch on glider FREQ **122.305** MHz.
LSR70AT **SCHAFFHAUSEN WEST**		
LSR70BT **SCHAFFHAUSEN NORTH**		
LSR71T **SCHAFFHAUSEN SOUTH**		
LSR72T **BOHLHOF**		Sunrise - Sunset Approval request by head of aerodrome Bohlhof with TWR Zurich; Phone: +41 (0) 43 931 69 61 or exceptionally by pilot in flight with FIC Zurich **124.700** MHz. Activation times available on Glider-Info on **120.880** MHz. Keep a listening watch on glider FREQ **122.305** MHz.
LSR73T **WINTERTHUR WEST**		Approval request by head of aerodrome Winterthur with TWR Zurich; Phone: +41 (0) 43 931 69 61 or exceptionally by pilot in flight with FIC Zurich **124.700** MHz. Activation times available on Glider-Info on **120.880** MHz. Keep a listening watch on glider FREQ **122.305** MHz.
LSR74T **WINTERTHUR EAST**		
LSR75T **DITTINGEN WEST**		Exclusive usage from aerodrome Dittingen.
LSR76T **DITTINGEN EAST**		

Designation and Name	Operator User TEL Nr	Activation hours: Remarks
LSR77T **ALBIS**		Activation only when Zurich TMA S1/S2/S3 is not active. Approval request by head of aerodrome Hausen with TWR Zurich; Phone: +41 (0) 43 931 69 61 or exceptionally by pilot in flight with FIC Zurich **124.700** MHz. Activation times available on Glider-Info on **120.880** MHz. Keep a listening watch on glider FREQ **122.305** MHz.
LSR78T **BACHTEL WEST** LSR79AT **BACHTEL CENTER** LSR79BT **BACHTEL EAST**		Activation only when Zurich TMA S1/S2/S3 is not active. Approval request by head of aerodrome Speck-Fehraltorf with TWR Zurich; Phone: +41 (0) 43 931 69 61 or exceptionally by pilot in flight with FIC Zurich **124.700** MHz. Activation times available on Glider-Info on **120.880** MHz. Keep a listening watch on glider FREQ **122.305** MHz.
LSR80T **VALLORBE**	Phone: +41 (0) 22 747 13 91 GLD ATIS **124.755** MHz	Advise ALPS RADAR **119.175** MHz and continuous listening watch on FREQ **121.130** MHz. Above FL095: Clearance by ALPS RADAR **119.175** MHz required. If sector activated, continuous listening watch on FREQ **119.175** MHz.
LSR81T **LE BRASSUS**	Phone: +41 (0) 22 747 13 91 GLD ATIS **124.755** MHz	Advise ALPS RADAR **119.175** MHz and continuous listening watch on FREQ **121.130** MHz. Above FL085: Clearance by ALPS RADAR **119.175** MHz required. If sector activated, continuous listening watch on FREQ **119.175** MHz.

8.3 **Restricted areas for gliders within CTR**

LSR FOR GLIDERS WITHIN CTR

No airspace class.
MIN Visibilty 5 km.
Following distances to clouds apply:

- vertical distance to clouds: 300 m
- horizontal distance to the clouds 1500 m

NO IFR traffic is allowed in these LSR

No VFR traffic allowed, except airspace users that are part of agreement (Segelflugvereinbarung) with ATC.

REF AIP SWITZERLAND ENR 5.5 and Glider Chart for Switzerland 1:350 000

Designation and Name	Operator User TEL Nr	Activation hours: Remarks
LSR82 **LAENGENBERG**	Authorisation for activation required (Bern ATC).	ATC: broadcasted on ATIS Bern. Transponder mode S required. FREQ for LSR82; **123.405** MHz listening watch required. HEMS Flights: Blind calls on **123.405** MHz. (not via TWR).
LSR83 **GRENCHEN**	Authorisation for activation required (Grenchen TWR).	ATC: broadcasted on ATIS Grenchen. FREQ for LSR83; **127.580** MHz listening watch required.

8.4 **Restricted areas within CTR**

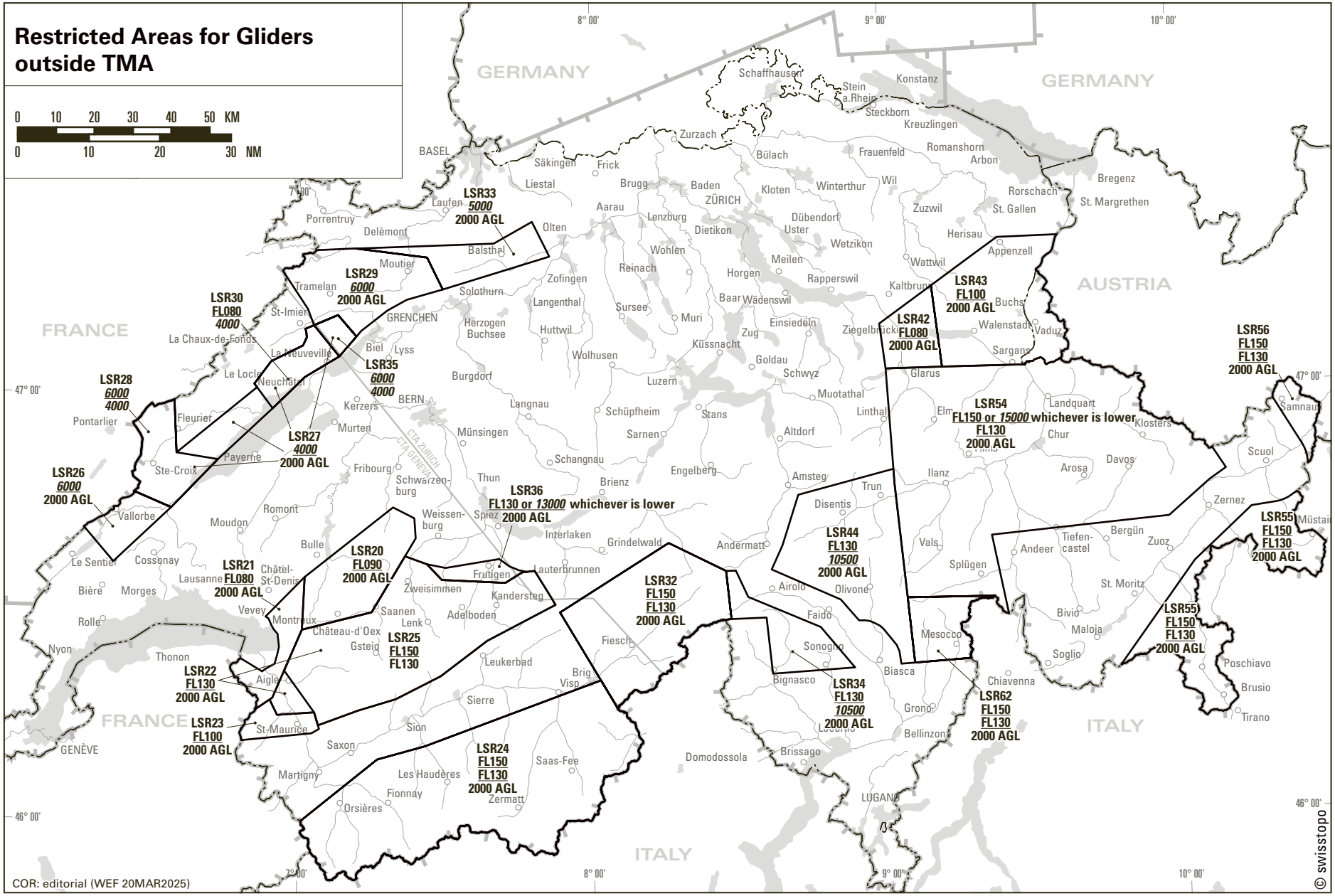
LSR WITHIN CTR

Airspace class: G

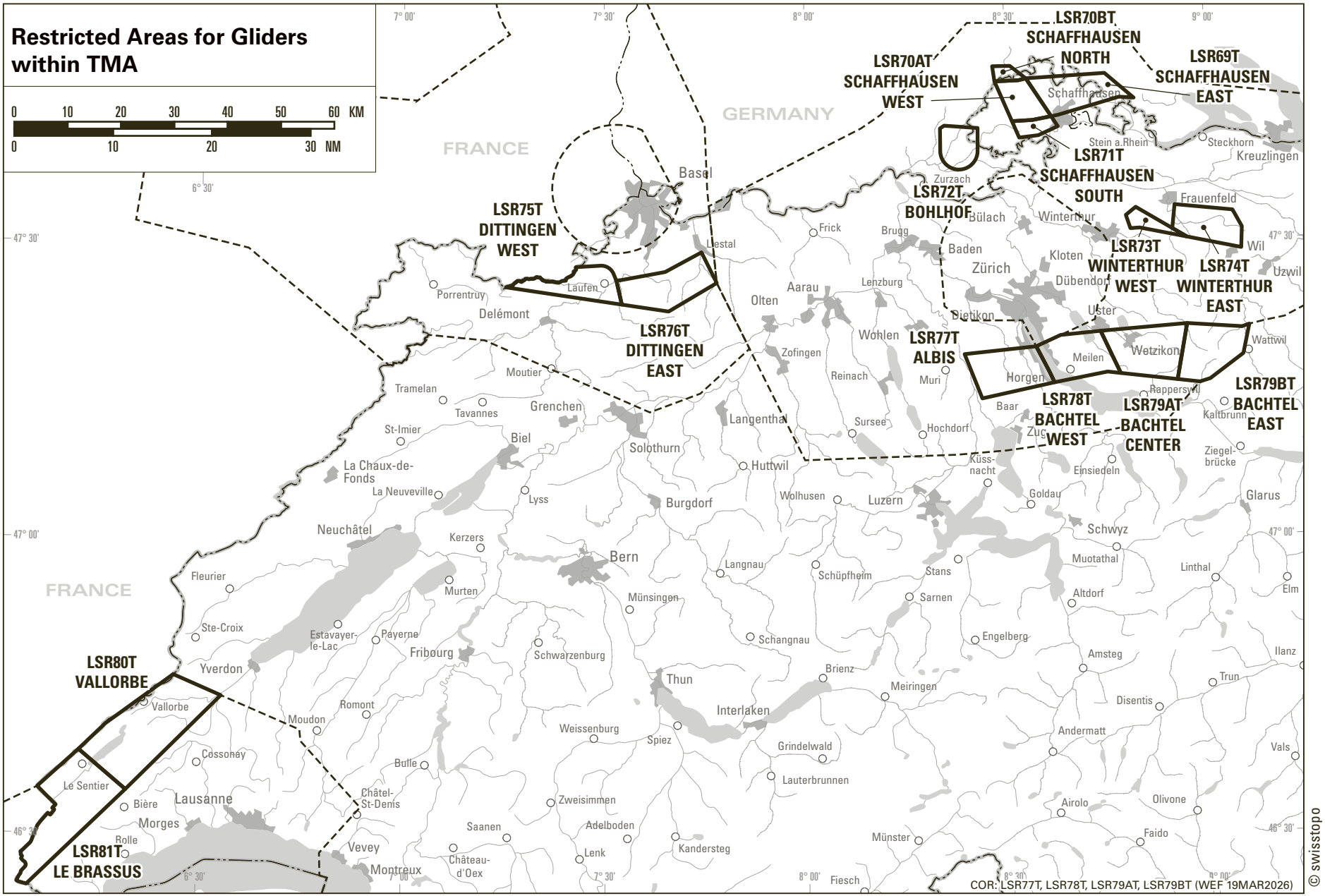
No IFR traffic allowed, only VFR traffic to/from Speck-Fehraltorf

REF AIP SWITZERLAND ENR 5.5

Designation and Name	Operator User TEL Nr	Activation hours: Remarks
LSR84A **SPECK SOUTH**	LSZK Aerodrome **120.355** MHz	Active when CTR LSMD is active. HEMS Flights in active Restricted Areas: REF RAC 4-5 § 9
LSR84B **SPECK NORTH**	LSZK Aerodrome **120.355** MHz	Active when CTR LSMD is active. HEMS Flights in active Restricted Areas: REF RAC 4-5 § 9

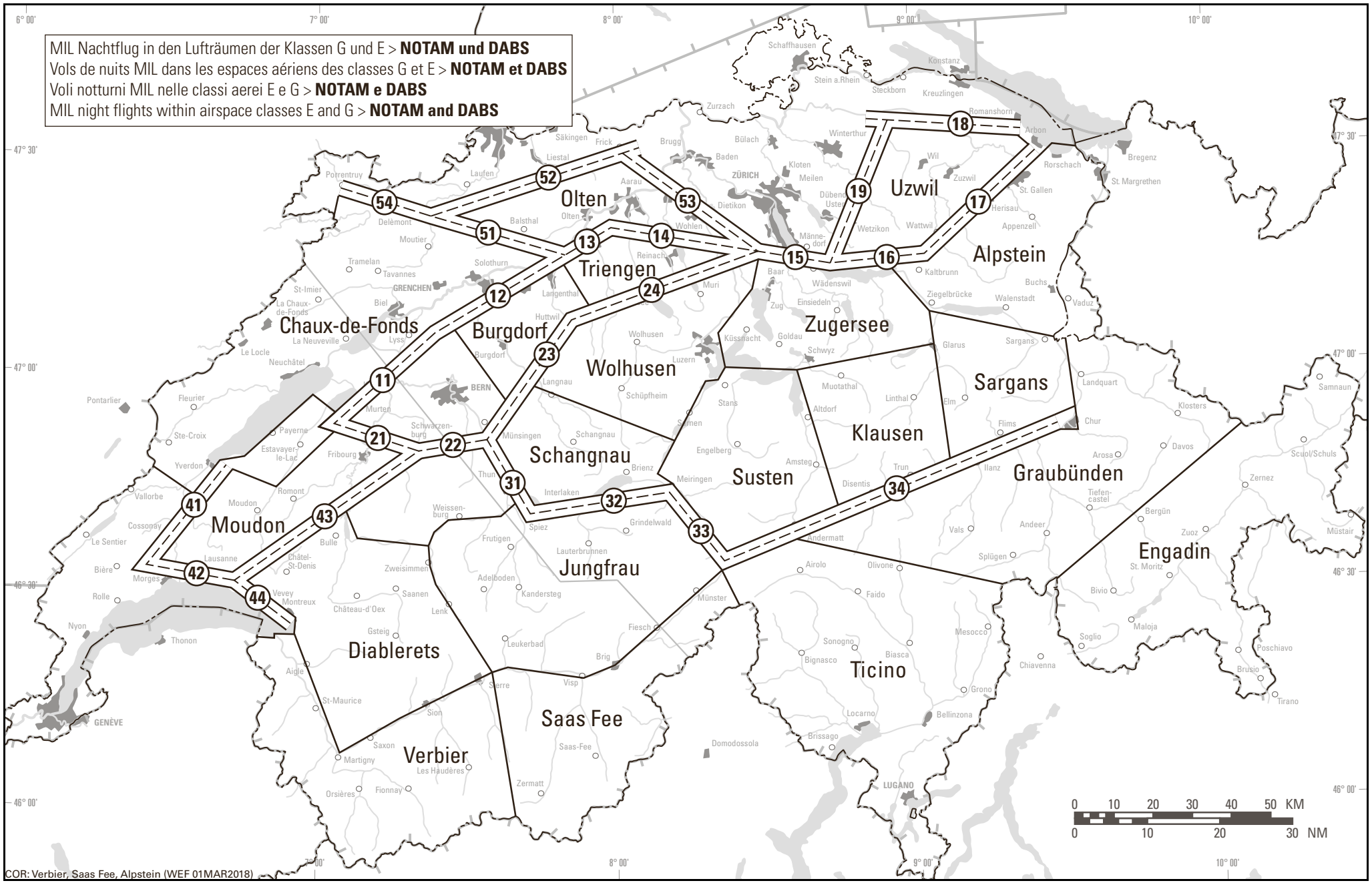


skyguide, CH-8602 Wangen bei Dübendorf



COR: LSR77T, LSR78T, LSR79AT, LSR79BT (WEF 19MAR2026)

skyguide, CH-8602 Wangen bei Dübendorf


MIL Nachtflug in den Lufträumen der Klassen G und E > **NOTAM und DABS**
Vols de nuits MIL dans les espaces aériens des classes G et E > **NOTAM et DABS**
Voli notturni MIL nelle classi aerei E e G > **NOTAM e DABS**
MIL night flights within airspace classes E and G > **NOTAM and DABS**
Olten
Uzwil
Alpstein
Triengen
Chaux-de-Fonds
Burgdorf
Zugersee
Wolhusen
Sargans
Klausen
Schangnau
Susten
Graubünden
Moudon
Jungfrau
Engadin
Diablerets
Ticino
Saas Fee
Verbier
0 10 20 30 40 50 KM
0 10 20 30 NM
COR: Verbier, Saas Fee, Alpstein (WEF 01MAR2018)

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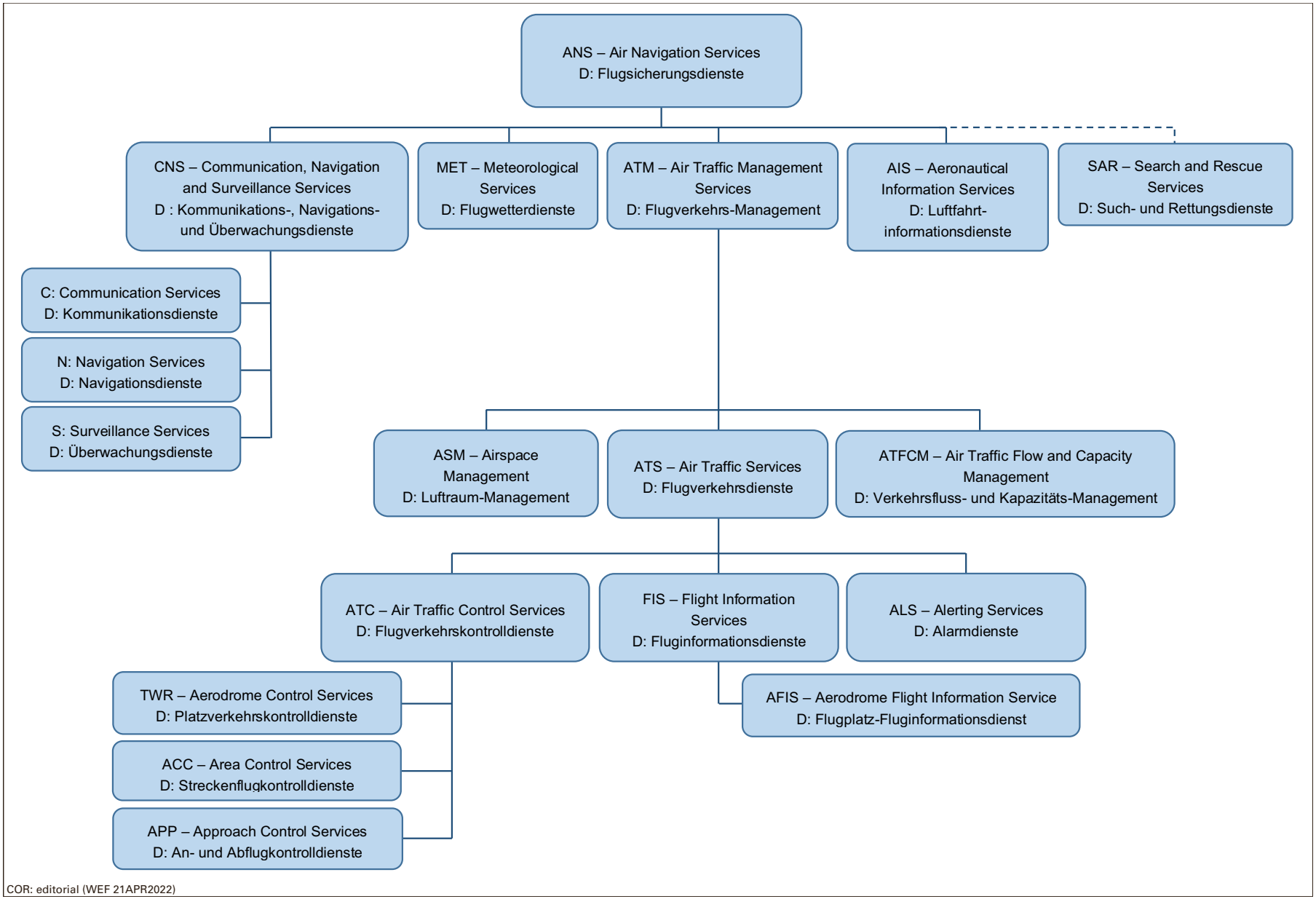
The structure and naming of air navigation services is shown in the following diagram. / Die Gliederung und Benennung der Flugsicherungsdienste geht aus folgendem Diagramm hervor
La structure et la dénomination des services de navigation aérienne sont illustrées dans le diagramme suivant. / La struttura e la denominazione dei servizi di navigazione aerea sono mostrati nello schema seguente.



COR: editorial (WEF 21APR2022)

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1 **Flight Information Service (FIS)**

The flight information service (FIS) is available to all of the following aircraft :

a) for the air traffic control service;
or
b) other aircraft which are known to and are in two-way radio communication with the competent air traffic control unit.

1.1 **Alarmdienst (ALRS)**

The alerting service (ALRS) is granted:

a) to aircraft taking advantage of air traffic control services;
b) other aircraft for which there is a flight plan
c) as far as possible to other aircraft having filled a flight plan or of which air traffic control services have otherwise become aware.

2 **Aerodrome Flight Information Service (AFIS)**

2.1 **Frequencies**

VFR Manual, COM 2-APP 1

2.2 **Terminology**

An AFIS service provides pilots with information to ensure the safe and effective operation of a flight in the vicinity of the aerodrome and the associated runways and taxiways.

Based on the air traffic regulations, the information received from the AFIS and his own assessment, every pilot alone is responsible for the safe operation of the flight and the transmission of his flight intentions.

AFIS is provided within a flight information zone (FIZ).

A flight information zone (FIZ) is a defined airspace, usually around an aerodrome, providing flight information and alerting services by a flight information service. Radio contact to the AFIS within a FIZ is mandatory, regardless of the airspace class; otherwise the regulations governing the airspace class in which the FIZ is located apply.

2.3 **Range of radio contact**

Radio coverage on the frequencies allocated to the AFIS is permitted within a radius of or maximum 15 NM around the aerodrome and up to a maximum of 3000 ft (900 m) above the aerodrome. It always covers the FIZ and the mandatory reporting points.

2.4 **Local responsibility**

The aerodrome information service is undertaken for the aerodrome traffic within the FIZ and the aircraft taxiing on the airfield tarmac.

2.5 **Implementation**

The aerodrome information service is undertaken by a certified air navigation organisation.

2.6 **Scope**

The aerodrome information service issues information, suggestions and traffic information to ensure the safe and expedient implementation of flights; for example:

a) Local weather information and weather at other aerodromes;
b) Information about the take-off and landing direction;
c) Information about air traffic at other aerodromes (traffic information);
d) Information about the general condition of the aerodrome, the runways and other facilities;
e) Messages to student pilots;
f) Information about hazards relating to the performance of flights (thunderstorms, wind gusts, ice, snow, standing water, etc.);
g) Notification about the rational operation of commercial flights;
h) Transmission of current air pressure (QNH);
i) Transmission of current meteorological visibility;
j) Coordination with other information services or air navigation offices;
k) Support for search and rescue operations (SAR);
l) Closing and activation of flight plans;
m) ...

The aerodrome information service alerts the rescue service in emergencies.

The flight information service informs the responsible air navigation traffic control services if aircraft become overdue.

3 Notes on ATS Procedures

3.1 Wake turbulence

3.1.1 Wake turbulence categories

With the aim of limiting the effects of separation regulations on the capacity of airports without, however, compromising safety, the following categories are used by air traffic for the separation of approaches and take-offs:

In the filed flight plans the pilots specify the wake turbulence in the categories J (super heavy), H, M or L.

Aircraft undertaking a missed approach or a low overflight will be considered as taking-off as far as separation is concerned. Should the procedure/take-off be in the opposite direction to the subsequent departure, 2 minutes separation will be applied between an aircraft in the categories M, S or L and an overflying aircraft.

3.1.2 Local instructions for use

With regard to the respective runway system the above-mentioned separation criteria are used mutatis mutandis. The specified distances apply for flights when the first aircraft overflies the runway threshold. The specified times (or a corresponding distance) apply when issuing clearance for take-off to the next aircraft in the queue.

3.1.3 Impact

REF: AIP, ENR 1.5, § 4

3.1.4 VFR Flights

For entry to and departure from the CTR, the procedures in accordance with VAC apply. This ensures a wide separation between (LIGHT) VFR flights and the heavier IFR flights.

The minimum separation cannot be applied for VFR approaches owing to wake turbulence.

3.2 Alerting service for VFR flights including IFR flights with VFR sections as well as NVFR flights

3.2.1 Alerting service assurance

The alerting service is provided for

- all flights provided with air traffic control service
- all flights that have filed a flight plan
- for flights that the air navigation services are aware of, by whatever means and
- for every aircraft that is knowingly or possibly in trouble or has been hi-jacked.

3.2.2 Overdue flights (INCERFA)

Search and rescue operations will be initiated for flights deemed to be overdue. All flight plans (FPL) with a destination within Switzerland will be monitored for their status, either automatically by the VFR FPL Arrival Service Switzerland, or by air traffic personnel at the destination aerodrome. Monitoring takes place 24 hours / 365 days a year irrespective of the operating hours of the aerodrome.

Remember: overdue flights trigger the first level of a search and rescue mission.

Flights are deemed overdue when:

- a flight plan was filed and
- the flight plan was not closed within 30 minutes of the calculated last transmitted arrival time.

Note 1: A flight notification does not constitute a flight plan!

Note 2: Regardless of the flight status, the alerting service shall be provided for every flight with a submitted flight plan, unless it is initiated by other sources (e.g. ELT, a distress call, reported missing to police, Rega etc.).

Note 3: Flight plans must be updated (DLA, CHG, CNL).

3.2.3 **Pilots obligations**

The pilot shall:

- Advise delays of more than 30 minutes and any changes to the flight plan (e.g. new destination airport, changed flight time, changed route, fuel-related maximum flight duration, total number of people on-board, etc.)
- Ensure that a departure report has been transmitted for every flight plan. Pilots of flights with a flight plan from an aerodrome without air navigation services shall ensure the activation of the flight plan by transmitting the actual departure time to the appropriate ATS unit upon initial contact, or by requesting the chief of aerodrome to activate the flight plan with the appropriate ATS unit.
- Close every flight plan immediately after landing at an uncontrolled aerodrome.
- in the event of diverted landings, the original flight plan must be closed.

Exceptions:

When landing at a controlled aerodrome outside of its operating hours, the pilot must close the flight plan immediately after landing.

The pilot is ultimately responsible for updating the information in the flight plans. This information should be transmitted via the flight-plan associated messages (DLA, CHG), where possible, immediately before departure. Changes during the flight (route, diverted landings or longer EET) are to be transmitted to air traffic services.

Note 1: Before landing at an uncontrolled aerodrome, the flight plan can be closed by the FIC via the "Close my flight plan" request. It must be noted that this will result in ending the monitoring of the flight .

Note 2: Changing from IFR to VFR does not close the flight plan!

Note 3: The following are deemed to be controlled aerodromes: Bern-Belp, Buochs, Les Eplatures, Geneva, Grenchen, Locarno, Lugano, St. Gallen-Altenrhein, Sion and Zurich.

3.2.4 **Skybriefing:**

The official "Skybriefing" system is to be used for managing flight plans.

(see RAC 4.2.1) The free telephone number for the ATS Reporting Office (ARO) is available to pilots within Switzerland 24 hours a day, 365 days a year:

0800 437 837 (0800 IFR VFR)

3.2.5 **Cost**

In principle the costs of any search and rescue mission can be billed to the pilot.

3.2.6 **ELT (Emergency Locator Transmitter)**

If an ELT is unintentionally triggered or if an ELT signal is received on the frequency 121.500 MHz, this must be brought to the attention of the RCC Zurich or air traffic control (FIC) immediately.

- RCC Zurich TEL +41 (0) 58 484 10 00 or
- ACC Zurich TEL +41 (0) 43 931 69 60 or
- ACC Geneva TEL +41 (0) 22 747 13 40

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1 Flight Plans

1.1 Filing and transmitting flight plans and associated reports

Flight plans and the associated reports (DLA, CHG, CNL) for flights from Swiss aerodromes are to be submitted via a personal user account via https://www.skybriefing.com/services/flightplan-services. Flight plans for contiguous legs can also be submitted via skybriefing. The flight plan reports submitted via skybriefing are transmitted automatically to the Swiss AIM service for further distribution. Before continuing the flight the flight plan availability is to be confirmed for the next leg of the flight.

1.2 Filing and transmitting flight plans and the associated reports in emergencies

Emergency service:

AIM Service Switzerland

Flight plan transmission via telephone:

- German / English TEL: +41 (0) 43 931 61 61
- French / English TEL: +41 (0) 43 931 62 03

In case of skybriefing unserviceability, AIM Operations Switzerland provides a contingency service for the filing of flight plans by telephone.

Associated messages (DLA, CHG, CNL and ARR) can always be transmitted by telephone.

1.3 Regulations for the VFR / flight plan / PLN

For international VFR flights to or from Switzerland, as well as for controlled VFR flights and for VFR flights at night (NVFR), a flight plan must be submitted.

This applies even if there are no plans to land in Switzerland. For international VFR flights starting in Switzerland the relevant publication for the country in question is to be consulted.

It is recommended to file a flight plan for VFR flights crossing remote territory in the Alps, Pre-alps and Jura Mountains.

The guidelines for closing a flight plan in accordance with RAC are to be observed.

VFR flight plans must be submitted before departure.

1.4 Obligation to file a flight plan for international VFR flights

As a rule, international VFR flights require a flight plan. However, aeronautical publications for the respective countries can grant exceptions.

Flights arriving in Switzerland from abroad are obliged to file a flight plan. Exceptions to this ruling are glider and balloon flights operating in airspace classes E and G arriving from Austria or Germany.

If a flight plan has not been filed, an alerting service will be subject to a delay. Flight plans are monitored and an emergency will be declared if an arrival report has not been submitted (SERA.4020).

Flight plans must be submitted, at the latest, 60 minutes prior to the flight to the ARO or, during the flight, by radio to air traffic services 10 minutes at the latest before entering the portion of the flight requiring a flight plan (SERA.4001 (c)). Consult AIP ENR 1.10 for further information.

Instructions for entering ATS information

When submitting the flight plan form, information in accordance with RAC PLN 1 and ff. is to be entered and all points 7 to 19 completed.

All times are to be indicated in a group of four digits in UTC.

Field 7: “Aircraft identification“

The aircraft identification may not exceed seven alphanumeric characters or include hyphens or symbols.

Territorial and registration characters (HBABC). If there are several aircraft, only the identification for the leading or first to take-off aircraft is to be entered (formation flight). The others are to be listed in field 18 with the REG/.

Field 8: “Flight rules and type of flight“

Flight rules: **V** for **VFR Flights**.

Type of flight: **G** for “General aviation“.

In field 15 (Route) the place/places where changes to the flight rules are envisaged are to be indicated. In field 18 under STS and using one of the specified status indications, the status of the flight is to be entered or, under RMK in field 18, other reasons can be given for special action by ATS.

Field 9: "Number and type of aircraft and wake turbulence category"

"Number"

Number only if more than one aircraft is involved.

"Type of aircraft"

ICAO abbreviation (ICAO-Doc 8643 - "Aircraft type designators") for the aircraft type.

If no abbreviation has been assigned or if several aircraft are involved in a formation flight, enter **ZZZZ** and in field 18 **TYP**/ for the model.

"Wake turbulence category"

L for aircraft up to and including 7000 kg MTOM.

Field 10: "Equipment and capabilities"

The following rules apply to field 10a ("Radio communication, navigation and approach aid equipment and capabilities"):

Enter one of the following characters:

N if no COM/NAV/APP equipment is being carried and not available for the route in question;

or

S if COM/NAV/APP equipment is on board and ready for operation for the route in question (see Note 1);

and/or

at least one of the following characters for the available COM/NAV/APP equipment and capabilities:

A	GBAS landing system
B	LPV (APV with SBAS) C LORAN C
D	DME
E1	FMC WPR ACARS
E2	D-FIS ACARS
E3	PDC ACARS
F	ADF
G	GNSS (see Note 2)
H	HF RTF
I	Inertial Navigation
J1	CPDLC ATN VDL MODE 2 (see Note 3)
J2	CPDLC FANS 1/A HFDL
J3	CPDLC FANS 1/A VDL Mode 4
J4	CPDLC FANS 1/A VDL Mode 2
J5	CPDLC FANS 1/A SATCOM (INMARSAT)
J6	CPDLC FANS 1/A SATCOM (MTSAT)
J7	CPDLC FANS 1/A SATCOM (Iridium)
K	MLS
L	ILS
M1	ATC SATVOICE (INMARSAT)
M2	ATC SATVOICE (MTSAT)
M3	ATC SATVOICE (Iridium)
O	VOR
P1	CPDLC RCP 400 (see Note 7)
P2	CPDLC RCP 240 (see Note 7)
P3	SATVOICE RCP 400 (see Note 7)
P4-P9	Reserved for RCP
R	PBN approved (see Note 4)
T	TACAN
U	UHF RTF
V	VHF RTF
W	VSM approved
X	MNPS approved
Y	VHF with 8.33 kHz channel spacing capability
Z	Other equipment carried or other capabilities (see Note 5)

Alphanumeric characters not mentioned above are reserved.

Note 1 - *If S is entered, it is assumed that VHF RTF, VOR and ILS is standard equipment, as long as the responsible ATS unit hasn't prescribed another combination.*

Note 2 - *If G is entered, the types of any external GNSS enhancements are to be entered by separated spaces in field 18 under NAV/.*

Note 3 - *See "RTCA/EUROCAE Interoperability Requirements Standard For ATN Baseline 1" (ATN B1 INTEROP Standard - DO-280B/ED-110B) for data link services, ATC authorisation and information/management of the radio communications with ATC / microphone check with ATC.*

Note 4 - *If R is entered, the possible "Performance Based Navigation" is to be entered in field 18 under PBN/. The "Performance-Based Navigation Manual" (Doc 9613) contains instructions for the use of the Performance Based Navigation for specific sections or regions of the route.*

Note 5 - *If Z is entered, the other equipment carried or other capabilities are to be specified in field 18. Depending on the case, it should be preceded by COM/, NAV/ and/or DAT. Exceptions for RNAV, CPDLC and 8,33 kHz are to be specified by entering Z in field 10a and including the relevant description after the following designator in field 18.*

a) EXM833 after prefix COM/;
b) RNAVX and/or RNAVINOP after prefix NAV/ ; and/or
c) CPDLCX after prefix DAT/.

Note 6 - *Information about navigation capabilities are transmitted to ATC for clearance and routing purposes.*
The following provisions refer to field 10b ("Surveillance equipment and capabilities"):
Enter one or more of the following designations with a total length not exceeding 20 characters, to describe operational surveillance equipment on board and/or the capabilities:

Note 7 - *The "Performance-based Communication and Surveillance (PBCS) Manual" (Doc 9869) contains instructions for operating the performance-based communication facilities that address the required performance for ATC services in a particular area.*

SSR Modes A and C

N No Transponder

A Transponder Mode A (4 digits-4096 codes)

C Transponder Mode A (4 digits-4096 codes) and Mode C

SSR Mode S

E Transponder Mode S with transmission of the aircraft identification, pressure altitude transmission and enhanced squitter capability (ADS-B)

H Transponder Mode S with transmission of the aircraft identification, pressure altitude transmission and enhanced surveillance capability

I Transponder Mode S with transmission of the aircraft identification but without pressure altitude transmission

L Transponder Mode S with transmission of the aircraft identification, pressure altitude transmission, enhanced squitter capability (ADS-B) and enhanced surveillance capability

P Transponder Mode S including pressure altitude transmission but without transmission of the aircraft identification

S Transponder Mode S with transmission of the aircraft identification and pressure altitude

X Transponder Mode S without transmission of the aircraft identification and pressure altitude

Note - *The enhanced surveillance capability is the ability of an aircraft to transmit aircraft data via a Mode-S transponder with downlink.*
(See AIP Switzerland ENR 1-10 for details)

Field 13: "Departure aerodrome and time"

"Departure aerodrome"

ICAO Location indicator. If no ICAO location indicator has been allocated, enter **ZZZZ** and the take-off aerodrome in field 18 with **DEP**/

or, if the flight plan has been filed from an aircraft already in the air, enter AFIL and in field 18 the prefix DEP/ four-digit ICAO location indicator for the ATS location where supplementary flight plan data can be obtained.

"Time (EOBT/ETO)"

EOBT (4-digits).

Field 15: "Cruising speed/Level/Route"

"Cruising speed"

True airspeed in knots N followed by a four-digit number (N0120).

"Level"

VFR for **VFR flights**. For **controlled VFR flights and VFR night flights (NVFR),** or, if it is intended to perform the flight at a specific height, the cruising altitude is to be given in ft MSL (A045) or as a flight level (F085).

"Route"

Planned route. In contrast to the ICAO regulations, Swiss ATS units accept details of the route giving local names based on the **Aeronautical Chart ICAO 1:500 000 2253-B Switzerland.**

Field 15c: "Route (including changes of speed, level and/or flight rules)"

The start of a change to speed and/or altitude, or a change to the ATS route and/or flight rules can be specified here for a single location.

Bearing and distance from a reference point:

The identification of the reference point, followed by the bearing of this point as a three-digit magnetic bearing, followed by the distance from this point as a three-digit indication in nautical miles. In more extensive geographical latitudes, for which the competent authority has determined that the magnetic bearing is not practicable, true bearing may also be used. If necessary, complete the required number of places with zeroes. A point, for example, with bearing 180° magnetic at a distance of 40 nautical miles from VOR "DUB", is to be specified as DUB180040.

Field 16: "Destination AD/Total estimated elapsed time/ALTN aerodrome(s)"

"Destination aerodrome"

ICAO Local indicator. If no ICAO local indicator has been allocated, enter **ZZZZ** and write out the destination aerodrome in field 18 with the identifier **DEST**/.

"Total EET"

Estimated flight duration from take-off until arrival at the destination aerodrome.

"Alternate aerodrome"

ICAO Local indicator If no ICAO local indicator has been allocated, enter **ZZZZ** and write out the alternate aerodrome in field 18 with the identifier **ALTN**/.

Field 18: "Other information"

The operators are warned that the use of identifiers not provided for in the regulations can lead to data being rejected or incorrectly processed or lost.

The provision clarified that hyphens ("-") and slashes ("/") may only be used as indicated.

(See AIP Switzerland ENR 1-10 for details)

0 (zero) if no details are required or enhancements to the information indicated in fields 7-16, and/or

EET/

Distinctive point with estimated flight time until crossing the national or FIR border (EET/ BASEL0050).

RMK

Other information in plain text which the pilot considers to be of importance, or is requested by the ATS (RMK / REQ CUSTOMS).

Switzerland requires information about **training flights, VFR night flights and controlled VFR flights** (RMK / TRG FLT, RMK / NVFR).

Field 19: "Supplementary information"

"Endurance"

After **E**/ maximum flight duration with a 4-digit number (hours and minutes).

"Persons on board"

After **P**/ number of persons on board.

"Emergency radio"

After **R/** delete the emergency frequencies not available.

"Survival equipment/Jackets/Dinghies"

After **S**/, **J**/ and **D**/ delete all emergency and survival equipment that is not available.

"Aircraft colours and markings"

After **A**/ the colours of the aircraft and, if appropriate, any distinctive markings.

"Remarks"

Enter any supplementary information about survival equipment. **N**/ delete, if no further entries.

"Pilot-in-command"

After **C**/ Name of the flight commander in block capitals.

FLIGHT PLAN PLAN DE VOL

PRIORITY
Priorité
≪≡ FF→

ADDRESSEE(S)
Destinataire(s)

FILING TIME
Heure de dépôt

ORIGINATOR
Expéditeur

SPECIFIC IDENTIFICATION OF ADDRESSEE(S) AND/OR ORIGINATOR
Identification précise du(des) destinataire(s) et/ou de l'expéditeur

3 MESSAGE TYPE
Type de message
≪≡ (FPL

7 AIRCRAFT IDENTIFICATION
Identification de l'aéronef
–

8 FLIGHT RULES
Règles de vol
–

TYPE OF FLIGHT
Type de vol

9 NUMBER
Nombre
–

TYPE OF AIRCRAFT
Type d'aéronef

WAKE TURBULENCE CAT.
Cat. de turbulence de sillage
/

10 EQUIPMENT AND CAPABILITIES
Equipement et capacités
– /

13 DEPARTURE AERODROME
Aérodrome de départ
–

TIME (EOBT/ETO)
Heure

15 CRUISING SPEED
Vitesse croisière
–

LEVEL
Niveau

ROUTE
Route
→

16 DESTINATION AERODROME
Aérodrome de destination
–

TOTAL EET
Durée totale estimée
HR. MIN.

DEST ALTN AERODROME
Aérodrome de dégagement à destination
→

2ND. DEST ALTN AERODROME
2ème aérodrome de dégagement à destination
→

18 OTHER INFORMATION
Renseignements divers
–

)≪≡

SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES)
Renseignements complémentaires (À NE PAS TRANSMETTRE DANS LES MESSAGES DE PLAN DE VOL DÉPOSÉ)

19
ENDURANCE
Autonomie
HR. MIN.
–E /

PERSONS ON BOARD
Personnes à bord
→P /

EMERGENCY RADIO
Radio de secours
UHF VHF ELT
→R / U V E

SURVIVAL EQUIPMENT / Equipement de survie
POLAR Polaire · DESERT Désert · MARITIME Maritime · JUNGLE Jungle
→S / P D M J

JACKETS / Gilets de sauvetage
LIGHT Lampes · FLUORES Fluores · UHF · VHF
→J / L F U V

DINGHIES / Canots
NUMBER Nombre · CAPACITY Capacité · COVER Couverture · COLOUR Couleur
→D / → →C ≪≡

AIRCRAFT COLOUR AND MARKINGS
Couleur et marques de l'aéronef
A /

REMARKS
Remarques
→N / ≪≡

PILOT-IN-COMMAND
Pilote commandant de bord
C /)≪≡

FILED BY / Déposé par

CHECKED / Contrôlé

SPACE RESERVED FOR ADDITIONAL REQUIREMENTS
Espace réservé à des fins supplémentaires

1 **Control Zones (CTR) and Terminal Control Areas (TMA)**

CTR and TMA can operate permanently (H24), or at specific predetermined hours (HO) or they are only occasionally (HX) active.

Outside the operating hours the airspace class for the surrounding airspace applies.

Management of control zones (CTR) and terminal control areas (TMA) with the designation "HX"

1.1 **Activation and deactivation**

The times published in the VFR RAC and/or AD Info §4 of the VFR Manual give an indication of the activation times that can be expected. An activation outside the published times, or deactivation within these times is possible at any time.

In a deactivated CTR or TMA (HX), the regulations for the surrounding airspaces G and E apply.

For IFR approaches/take-offs, controlled airspace (CTR and/or TMA) must be active.

1.2 **Querying the airspace status**

The status of an airspace referred to as 'HX' may be obtained from the appropriate air traffic control, a designated frequency, or telephone number or, where available, ATIS.

If it is not possible to establish the current status of the airspace, or if no request for information is made, the airspace is to be considered as active.

1.3 **Establishing radio contact for entry into airspace and maintaining listening watch**

Radio contact must be established and clearance obtained before entering the airspace. Whilst in the airspace, and in radio contact, the instructions of air traffic control are to be complied with and listening watch maintained at all times.

All pilots flying through a deactivated airspace known as 'HX' shall maintain listening watch on the frequency on which the status request was made so that they can be notified of any short-term status changes.

Responsible for radio communications:

REF ICAO-Karte 1:500 000 oder Segelflugkarte

GLDC 1:350 000, COM 2-APP 1/2.

The following information is to be transmitted to air traffic services:

- Call sign;
- Location according to ICAO chart 1:500 000 or glider chart GLDC 1:350 000;
- Altitude AMSL (ft or m);
- Intention of flight.

2 **Special Regulations Applying to LSGG TMA Geneva**

2.1 **Request to enter the airspace**

In order to be able to enter airspace C of the TMA, previous ATC clearance is a must:
for all aircraft GENEVA INFORMATION is to be contacted on 126.350 MHz.

Clearance must be requested at least 10 minutes before entering airspace class C.

Transponder: SSR Mode C specified according to VFR RAC.

2.2 **Neighbouring aerodromes**

In principle, aircraft in transit must avoid airspace C of the TMA. Aircraft flying to or departing from Geneva, Annemasse, Bellegarde and La Côte must stay below airspace C of the TMA. In order to keep noise emissions as low as possible, a minimum height of 3,000 ft is recommended. However, exceptions can be granted depending upon the type of aircraft, the type of flight or prevailing weather conditions.

2.3 **Services**

Clearance to enter TMA Geneva will be granted taking account of the traffic situation.

Services based on airspace class C or E.

3 **VFR Procedures in Control Zones (CTR)**

During the day, visual flights are to be performed in such a way that the minimum visibility and distance from the clouds are complied with in accordance with SERA.5001.

SVFR flights can be approved on the basis of the SERA.5010 requirements.

In Switzerland, night flights are also permitted according to the special visual flight rules

3.1 **Local VFR procedures:**

For flights involving aircraft without operational RTF equipment, authorisation will only be granted:

a) for rescue flights to save life;
b) in emergencies;
c) in exceptions of a special nature (e.g. to undertake repairs on aircraft and flight equipment or for other urgent reasons).

Customs clearance does not constitute a reason for receiving authorisation.

For specific VFR flights, and depending upon the classification of the airspace, air traffic control provides information regarding separation and/or traffic information.

4 **VFR Night Flights (NVFR)**

For NVFR flights, **Art. 27 Ordinance on Traffic Regulations for Aircraft (VRV-L)** is authoritative.

No flight plan needs to be filed for visual flights by helicopters performing rescue missions (incl. training).

During MIL night flights the routes and airspaces published with a NOTAM should be avoided.

The restriction does not apply to helicopters performing a rescue mission.

For visual flights at night, radio communication must also be established and maintained in airspaces G and E on the appropriate air traffic radio channel, if available.

5 **VFR FLIGHTS WITHIN AIRSPACE CLASS C**

5.1 **Flights**

VFR flights in Class C airspace shall be subject to air traffic control for this class. These flights are separated by air traffic control through clearance or instructions regarding the route and altitude of IFR flights, with the purpose of increasing safety in airspaces with high IFR traffic density.

Occasional transit flights by gliders through class C airspaces may be authorised by the responsible air traffic control unit if the conditions are specified and if continuous two-way radio communications can be maintained.

Having previously specified the conditions, the responsible air traffic services unit may also authorise transit flights without radio contact.

5.2 **Aircraft and equipment**

If RAC requires a transponder to be carried, an SSR Mode S transponder of at least level 2 with SI code and elementary surveillance functionality shall be carried.

In addition to the basic equipment engine-power aircraft must also be equipped with:

- VHF radio
- VOR Navigation system
- Compass

Radio, transponder, air-traffic clearance

Regardless of whether a written flight plan was filed, the responsible air traffic control must be contacted in good time before entering airspace class C. Radio communications are generally undertaken in English.

Engine-powered aircraft must carry and activate a Mode-S transponder. Furthermore, when performing balloon flights at night, a Mode-S transponder must also be carried and activated.

If a transponder is carried, it must also be operated for flights not specified by RAC provided an adequate electrical power supply is ensured. The transponder must be operated in accordance with ATC instructions.

5.3 **Performing a flight**

If the assigned route or altitude cannot be maintained under VMC, modified air traffic clearance must be requested in good time.

6 VFR FLIGHTS WITHIN AIRSPACE CLASS D

6.1 Flights

VFR flights in Class D airspace shall be subject to air traffic control for this class. These flights receive clearance, air traffic information about IFR and VFR flights and, if requested, avoidance recommendations from air traffic control. Separation is not undertaken.

Occasional transit flights by gliders through class D airspaces may be authorised by the responsible air traffic control unit if the conditions are specified and if continuous two-way radio communications can be maintained.

Having previously specified the conditions, the responsible air traffic services unit may also authorise transit flights without radio contact.

6.2 Aircraft and equipment

If RAC requires a transponder to be carried, an SSR Mode-S transponder of at least level 2 with SI code and elementary surveillance functionality is to be carried.

In addition to the basic equipment, engine-power aircraft must also be equipped with: VHF radio

6.3 Radio, transponder, air-traffic clearance

Regardless of whether a written flight plan was filed, the responsible air traffic control must be contacted in good time before entering airspace class D. Radio communications are generally undertaken in English.

Engine-powered aircraft must carry and activate a Mode-S transponder. Furthermore, when performing balloon flights at night, a Mode-S transponder must also be carried and activated.

If a transponder is carried, it must also be operated during flights even though RAC does not specify this, provided an adequate electrical power supply is ensured.

The transponder must be operated in accordance with ATC instructions.

7 VFR FLIGHTS WITHIN AIRSPACE CLASS E

VFR flights in Class E airspace may take advantage of the flight information service and air traffic information, provided that the capabilities of air traffic control allow this. Neither air traffic management nor separation is offered.

If RAC requires a transponder to be carried, an SSR Mode-S transponder of at least level 2 with SI code and elementary surveillance functionality is to be carried.

Engine-powered aircraft must carry and operate a Mode-S transponder for flights at and above 7000 ft AMSL. For night flights even when below 7000 ft AMSL. Furthermore, balloon flights at night and helicopter take-offs in foggy or low stratus conditions require a Mode-S transponder to be carried and operated.

If a transponder is carried, it must also be operated during flights not specified by RAC provided an adequate electrical power supply is ensured.

8 **VFR FLIGHTS WITHIN AIRSPACE CLASS G**

VFR flights in Class G airspace may take advantage of the flight information service, provided that the capabilities of air traffic control allow this. Neither air traffic management nor separation is offered.

If RAC requires a transponder to be carried, an SSR Mode-S transponder of at least level 2 with SI code and elementary surveillance functionality is to be carried.

For night flights, engine-powered aircraft must carry and operate a Mode-S transponder. Furthermore, balloon flights at night and helicopter take-offs in foggy or low stratus conditions require a Mode-S transponder to be carried and operated.

If engine-powered, or non-engine-powered aircraft are performing flights above 1000 ft above ground with a horizontal distance to clouds of less than 1500 m or a vertical distance to clouds of less than 1000 ft, a Mode-S transponder is to be carried and operated.

If a transponder is carried, it must also be operated during flights not specified by RAC provided an adequate electrical power supply is ensured.

9 **General Rules**

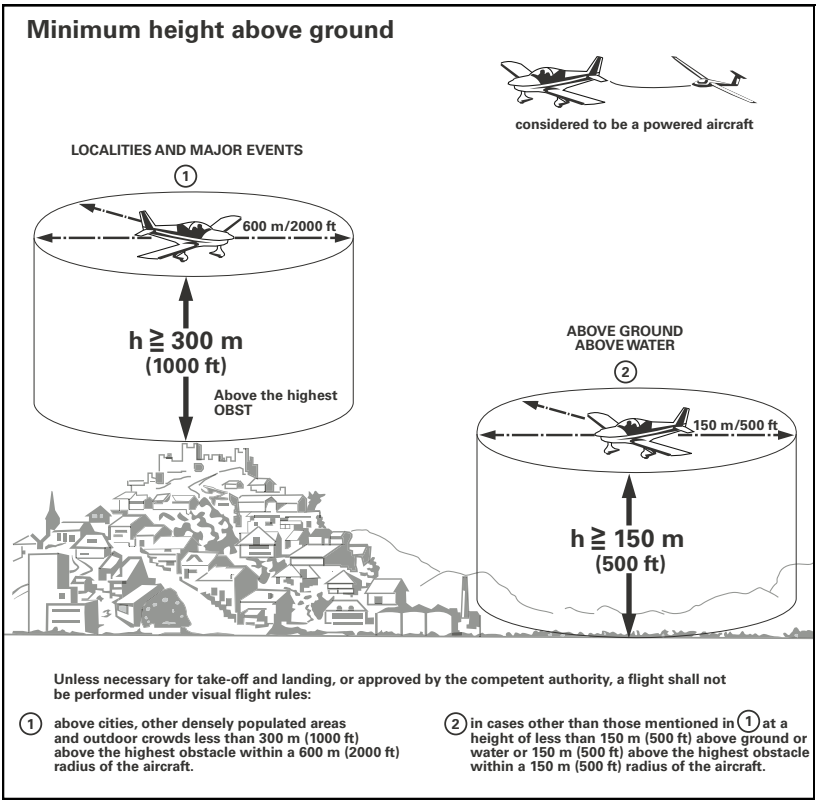
9.1 **Visibility and distance from clouds (Day VFR)**

VISIBILITY AND CLOUD DISTANCES (day VFR):

Altitude band	Airspace class	Flight visibility	Distance from cloud
At and above FL100	C, D, E	8 km	↕ 1000 ft / ↔ 1500 m
Below FL100		5 km	↕ 1000 ft / ↔ 1500 m
Between 1000 ft AGL and 2000 ft AGL	G	5 km*	No transponder operated: ↕ 1000 ft / ↔ 1500 m
			Transponder operated: Clear of cloud and with the surface in sight
Below 1000 ft AGL			Clear of cloud and with the surface in sight

* Flight visibility of not less than 1500 m if flight speed of 140 kts IAS or less to avoid other traffic and obstacles or in case of low traffic encounters (e.g. low traffic, low level aerial work).
Note: Helicopters may operate at visibility of not less than 800 m ref. VFR Manual RAC 1-0 Class G – Uncontrolled ASP

9.2 **Minimum height above ground**



9.3 **Radio communication failure procedures**

Radio communication failure procedures are defined in the Standardised European Rules of the Air (SERA), more specifically in SERA.14083 and its Acceptable Means of Compliance (AMC) and Guidance Material (GM). The relevant provisions for VFR flight crews are the following:

An aircraft experiencing a radio communication failure shall set the transponder on Mode A Code 7600 and/or set the ADS-B transmitter to indicate the loss of air-ground communications. A VFR flight shall continue to fly in VMC, land at the nearest suitable aerodrome, and report its arrival by the most expeditious means to the appropriate ATS unit. The aircraft, when forming part of the aerodrome traffic at a controlled aerodrome, shall keep a watch for instructions as may be issued by visual signals.

10 **Transponder Use for VFR Flights**

SSR TRANSPONDER OPERATIONS

1. A Mode S transponder of at least level 2 with SI code and Elementary Surveillance Functionality (ELS) shall be carried and operated in the following cases:
   - Motorized aircraft:
     a) in airspace classes C and D,
     b) in airspace classes E at and above *7000 ft AMSL*,
     c) for NVFR flights in all airspace classes,
     d) if operating with cloud distances below ↕1000 ft /↔1500 m between 1000 ft AGL – 2000 ft AGL,
     e) for helicopters when departing with ground fog or fog conditions in all airspace classes.
   - Non-motorized aircraft:
     a) if operating with cloud distances below ↕1000 ft /↔1500 m between 1000 ft AGL – 2000 ft AGL,
     b) balloons on NVFR flights in all airspace classes,
     c) balloons when departing with ground fog or fog conditions in all airspace classes.
2. If a transponder is carried and unless otherwise instructed by ATC, the transponder shall always be operated and the Code 7000 with altitude-reporting shall be used. Non-motorised aircraft subject to power availability

11 **Flights over Quiet Nature and Deer Zones**

The quiet nature zones are indicated on the aeronautical chart ICAO 1:500 000, 2253-B Switzerland and the Glider Chart 1:350 000.

11.1 **Quiet nature zones**

- **National park**
  Coordinates: REF AIP ENR 5.6, § 4
- **Area Adula/Greina/Medels/Vals**
  Coordinates: REF AIP ENR 5.6, § 4
- **Area Binntal**
  Coordinates: REF AIP ENR 5.6, § 4
- **Area Weissmies**
  Coordinates: REF AIP ENR 5.6, § 4

11.1.1 **Overflight**

Flying over peaceful nature zones is to be avoided, or the flight must be performed at a considerably greater height than the minimum prescribed (cf. Art. 28 Traffic Regulations for Aircraft, VRV-L) by taking the shortest possible route.

11.2 **Quiet Deer Zones**

Quiet deer zone Derborence

11.2.1 **Overflight**

Flying over quiet deer zones is to be avoided, or the flight must be performed at a considerably greater height than the minimum prescribed height (cf. Art. 28 Traffic Regulations for Aircraft, VRV-L) by taking the shortest possible route. The ruling applies to all aircraft.

12 **COORDINATION OF SPECIAL FLIGHTS IN AIRSPACES C + D**

Particular flights within airspaces C and D, apart from normal take-offs, landings or crossings of the airspace, can pose a danger for other airspace users and place an additional coordination effort on air traffic controllers.

For this reason, before flights of this nature are undertaken, the operator or the organiser is to coordinate them with Skyguide.

A few examples of these flights are:

Photo, calibration and survey flights, VFR flights above FL 195 (SERA.5005(d)1), cargo flights within a CTR/TMA, parachute jumps, television transmission flights, competitions (balloon, gliding, etc.), drones, party balloons and sky lanterns.

12.1 **Air Traffic Control Contact Unit and Application form**

All special flights

Coordination request shall be submitted to the special flight office (SFO) Skyguide, latest 10 working days prior the date of the event, via the "SFO APP". The application tool and useful information are available under https://www.skyguide.ch/en/special-flights.

Drone flights

Drone operator can use the "U-Space Skyguide web APP" or "U-Space Skyguide mobile APP". If under specific conditions, coordination request shall be submitted until the day before the flight until 1200 LT.

If specific conditions are not met, operators will be redirected on the "SFO APP" and shall submit the request to the special flight office (SFO), Skyguide, no later than 10 working days prior to the date of flight.

12.2 **Coordination, authorisation and implementation**

The Special Flight Office will inform all affected air traffic control units.

The operator/organiser will be informed about restrictions and constraints and a reference number will be issued for every special flight. In order to obtain the final authorisation, the operator/organiser must notify the affected air traffic control unit on the day of the event. The operator/organiser will be advised in writing about the detailed notification procedure.

For operational reasons (such as volume of air traffic or safety reasons), the affected air traffic control unit may refuse the permission. It may refuse, interrupt or suspend special flights, or impose additional restrictions.

In order to regulate conflicts of interest FOCA issues instructions on airspace management, in particular those with regard to airspace usage priorities. These airspace usage priorities and deviations thereof are available under Air Traffic Control and Airspace.

12.3 **Support for "SFO APP"**

Phone: +41 43 931 62 36

Email: specialflight@skyguide.ch

General special flight support:

Useful information are available under https://www.skyguide.ch/en/special-flights and the appropriate rules engines in the tools guide you through the request.

13 **Approach, Transit and Departure**

13.1 **General**

Civil aircraft from ICAO member states are not required to obtain permission to overfly Swiss territory or for non-commercial landings in Switzerland (Article 5 Chicago Convention).

Approaches, transit, take-offs and landings must be carried out in accordance with Swiss civil aviation legislation.

Every aircraft arriving from or flying abroad must use an aerodrome open to international traffic. Emergency landings accepted.

Under certain conditions, aerodromes have limited customs competence.

REF: AIP AD 1.3

See VFR Manual for details: AGA, chart VFR AGA, AD INFO, § 9.

Third-party liability insurance for aircraft using Swiss airspace.

13.2 **Third-party liability claims**

Liability claims from third parties on the ground.

Liability claims from third parties on the ground for any damages (personal injury and property damage together) suffered must meet the following minimum requirements:

	Minimum insurance sum (millions of Special Drawing Rights SDR) 1 SDR = approx. CHF 1.39, MAR 16
a. Aircraft with a take-off weight below 499 kg	0.75
b. Aircraft with a take-off weight of 500 kg or higher, but below 999 kg	1.5
c. Aircraft with a take-off weight of 1000 kg or higher, but below 2699 kg	3
d. Aircraft with a take-off weight of 2700 kg or higher, but below 5999 kg	7
e. Aircraft with a take-off weight of 6000 kg or higher but below 11,999 kg	18
f. Aircraft with a take-off weight of 12,000 kg or higher, but below 24,999 kg	80
g. Aircraft with a take-off weight of 25,000 kg or higher, but below 49,999 kg	150
h. Aircraft with a take-off weight of 50,000 kg or higher, but below 199,999 kg	300
i. Aircraft with a take-off weight of 200,000 kg or higher, but below 499,999 kg	500
j. Aircraft with a take-off weight of 500,000 kg or higher	700
k. Parachute jumpers, hang gliders, kites, paragliding, tethered balloons	CHF 1,000,000

Third-party claims made by passengers

The minimum guarantee for liability claims for passengers is 250,000 special drawing rights per traveller. In the case of non-commercial flights operated by aircraft with a take-off weight of up to 2700 kg, the minimum guarantee may be less than this amount, but must be at least 100,000 special drawing rights per passenger. In the case of non-commercial flights without passengers, a corresponding liability insurance can be waived.

SDR as defined by the International Monetary Fund

(1 SDR = CHF 1.85, January 06).

For more information: http://www.imf.org/external/np/exr/facts/sdr.HTM

REF: Art. 125, Art. 132a of the Swiss Federal Aviation Ordinance (LFV, SR 748.01), Ordinance on Special Category Aircraft (VLK, SR 748.941)

13.3 **Private flights**

Private flights of foreign civil aircraft to and from Switzerland do not require authorisation if the aircraft is registered in a country that is a member of the International Civil Aviation Organisation (ICAO).

1. **Flight documents for aircraft registered in Switzerland**

The following documents, manuals and information shall be carried on the flight in their original form or as a copy unless otherwise specified:

a) the aircraft flight manual (AFM) or equivalent document(s)
b) the original of the registration certificate,
c) the original of the Certificate of Airworthiness (CofA),
d) the Continuing Airworthiness Review Certificate (ARC) or valid confirmation of the airworthiness control,
e) scope of utilisation, if applicable,
f) noise certificate, if applicable,
g) list of special approvals (SPA), if applicable,
h) towing airworthiness certificate, if applicable
i) licence for aircraft stations (OFCOM), if applicable
j) proof of third-party liability insurance towards third parties on the ground and, if prescribed, proof of third-party liability insurance vis-à-vis travellers,
k) the pilot logbook or equivalent document for the aircraft, including certificates of release to service,
l) details of the flight plan (ATS flight plan) provided to air traffic services, if applicable,
m) up-to-date and relevant aeronautical charts for the intended route and area, and any routes reasonably likely to be used as diversions,
n) information on procedures and visual signals for use by intercepting and intercepted aircraft,
o) the checklist issued by the manufacturer or drawn up by the owner (checklist),
p) MEL or CDL, where applicable,
q) in special cases, in particular for aircraft undergoing the certification process, the FOCA determines the documents and records to be carried in individual cases.

2. The aircraft flight manual (AFM)

The flight documents, as well as the information provided by the AFM, may only be modified by or on behalf of the issuing authority.

Any loss of the folder or individual parts thereof must be reported immediately to the Federal Office of Civil Aviation. Any third party who finds the folder is requested to forward it to the Federal Office of Civil Aviation, CH-3003 Bern.

13.4 **Commercial flights**

Flight documents for aircraft registered in Switzerland

The following documents, in the original, must be carried on board the aircraft:

1. **The blue document folder containing:**
   a) original of the registration certificate,
   b) original of the airworthiness certificate (CofA),
   c) the Continuing Airworthiness Review Certificate (ARC) or valid confirmation thereof,
   d) proof of the third party liability insurance guarantee (in SDR),
   e) proof of insurance for third party liability with regard to passengers, if applicable (in SDR),
   f) extract from the AOC in the form of a certified copy, if applicable,
   g) any relevant operating conditions for the aircraft type issued with the AOC,
   h) scope of approval for the aircraft in commercial use, if applicable,
   i) noise certificate, if applicable,
   j) towing worthiness certificate, if applicable,
   k) original of OFCOM's operating licence for aircraft stations.

2. **The aircraft flight manual (AFM)**

The flight documents, as well as the information provided by the AFM, may only be modified by or on behalf of the issuing authority.

Any loss of the folder or individual parts thereof must be reported immediately to the Federal Office of Civil Aviation.

Any third party who finds the folder is requested to forward it to the Federal Office of Civil Aviation, CH-3003 Bern.

13.5 **Health service**

Switzerland renounces any health checks. The right to take action in special cases is reserved.

13.6 **Entry and stay**

In principle, passengers and aircraft crew* require a valid and recognised travel document (passport or identity card) to enter and stay in Switzerland for a maximum of 90 days. Where appropriate, they must also be in possession of a valid visa, unless the holders of the travel document are holders of a residence permit issued by a Schengen State, which is considered equivalent to a visa.

For nationals from:

Belgium, the Netherlands, Monaco, France, Austria, Liechtenstein, Portugal, Luxembourg, San Marino and Spain, a passport that has expired less than five years ago is sufficient.

For nationals of the following countries a valid identity card is sufficient:

Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom, Principality of Liechtenstein, Iceland, and Norway.

For nationals of all other countries special travel documents and visa regulations apply.

An up-to-date overview can be found on the website of the State Secretariat for Migration, SEM (https://www.sem.admin.ch/sem/en/home.html). If necessary, the Swiss representations or the State Secretariat for Migration will provide additional information.

13.7 **Departure**

Passengers and aircraft crew* must have a valid and recognised travel document on departure and, where appropriate, a visa or residence permit from a Schengen State equivalent to a visa for travel to a Schengen State. For travel to countries other than Schengen states, the travel regulations of the respective country must be observed.

* unless they are in possession of a pilot's licence or a Crew Member Certificate in accordance with Annex 9 of the ICAO Convention in the performance of their duties.

1 **Day and Night Limits**

Ordinance on Traffic Regulations for Aircraft (VRV-L), Art. 23, § 6.
The time information in the columns indicates:

Col. 1: BCMT - Beginning of the Civil Dawn (HRH*)
Col. 2: Sunrise (SR)
Col. 3: Sunset (SS)
Col. 4: ECET - End of the Civil Twilight (HRH*) according to Central European Time (CET; UTC+1)

The tables are calculated for 2025 (OCT-DEC) and 2026 (JAN-DEC).

Summertime (ETE: UTC+2) **commences on the last Sunday in March**.
Summertime ends on the last Sunday in October.

The times are indicated in local time (LT) and apply to the entire FIR Switzerland. Reference location for the time calculation is the observatory Bern, 46°57' N / 007°26' E.

The civil dawn begins and the civil twilight ends when the centre of the sun's disk is 6° below the horizon and lasts a little more than 30 minutes.

Night or a night flight is considered to be the time between the end of the evening civil twilight and the beginning of the morning civil dawn.

2025	FIR SWITZERLAND (LT)											
Day	OCT				NOV				DEC			
	1	2	3	4	1	2	3	4	1	2	3	4
1	0659	0729	1910	1940	0641	0713	1714	1746	0721	0755	1643	1718
2	0700	0731	1908	1938	0643	0714	1713	1744	0722	0756	1643	1718
3	0702	0732	1906	1936	0644	0716	1711	1743	0723	0758	1642	1717
4	0703	0733	1904	1934	0645	0717	1710	1742	0724	0759	1642	1717
5	0704	0735	1902	1932	0647	0719	1708	1740	0725	0800	1642	1717
6	0706	0736	1900	1930	0648	0720	1707	1739	0726	0801	1642	1717
7	0707	0737	1858	1928	0650	0722	1705	1738	0727	0802	1641	1716
8	0708	0739	1856	1926	0651	0723	1704	1737	0728	0803	1641	1716
9	0710	0740	1854	1925	0652	0725	1703	1735	0729	0804	1641	1716
10	0711	0741	1852	1923	0654	0726	1702	1734	0730	0805	1641	1716
11	0712	0743	1850	1921	0655	0728	1700	1733	0731	0806	1641	1716
12	0714	0744	1848	1919	0656	0729	1659	1732	0731	0807	1641	1717
13	0715	0746	1847	1917	0658	0731	1658	1731	0732	0808	1641	1717
14	0716	0747	1845	1915	0659	0732	1657	1730	0733	0808	1641	1717
15	0718	0748	1843	1913	0700	0734	1656	1729	0734	0809	1642	1717
16	0719	0750	1841	1912	0702	0735	1655	1728	0734	0810	1642	1717
17	0720	0751	1839	1910	0703	0736	1654	1727	0735	0811	1642	1718
18	0722	0753	1837	1908	0704	0738	1653	1726	0736	0811	1643	1718
19	0723	0754	1836	1906	0706	0739	1652	1725	0736	0812	1643	1718
20	0725	0755	1834	1905	0707	0741	1651	1724	0737	0812	1643	1719
21	0726	0757	1832	1903	0708	0742	1650	1723	0737	0813	1644	1719
22	0727	0758	1830	1901	0710	0744	1649	1723	0738	0813	1644	1720
23	0729	0800	1829	1900	0711	0745	1648	1722	0738	0814	1645	1720
24	0730	0801	1827	1858	0712	0746	1647	1721	0739	0814	1646	1721
25	0731	0803	1825	1856	0713	0748	1647	1721	0739	0815	1646	1722
26	0633	0704	1724	1755	0715	0749	1646	1720	0740	0815	1647	1722
27	0634	0706	1722	1753	0716	0750	1645	1720	0740	0815	1648	1723
28	0636	0707	1720	1752	0717	0751	1645	1719	0740	0815	1648	1724
29	0637	0709	1719	1750	0718	0753	1644	1719	0740	0816	1649	1725
30	0638	0710	1717	1749	0719	0754	1644	1718	0740	0816	1650	1725
31	0640	0712	1716	1747					0741	0816	1651	1726

ETE

2026	FIR SWITZERLAND (LT)											
Day	JAN				FEB				MAR			
	1	2	3	4	1	2	3	4	1	2	3	4
1	0741	0816	1652	1727	0723	0755	1733	1806	0640	0710	1816	1846
2	0741	0816	1653	1728	0721	0754	1735	1807	0638	0708	1817	1848
3	0741	0816	1654	1729	0720	0753	1736	1808	0636	0707	1818	1849
4	0741	0816	1655	1730	0719	0751	1738	1810	0634	0705	1820	1850
5	0741	0816	1656	1731	0718	0750	1739	1811	0632	0703	1821	1852
6	0740	0815	1657	1732	0716	0749	1741	1813	0631	0701	1823	1853
7	0740	0815	1658	1733	0715	0747	1742	1814	0629	0659	1824	1855
8	0740	0815	1659	1734	0714	0746	1744	1816	0627	0657	1826	1856
9	0740	0814	1701	1735	0712	0744	1745	1817	0625	0655	1827	1857
10	0739	0814	1702	1736	0711	0743	1747	1819	0623	0653	1829	1859
11	0739	0814	1703	1738	0709	0741	1748	1820	0621	0651	1830	1900
12	0739	0813	1704	1739	0708	0740	1750	1821	0619	0649	1831	1902
13	0738	0813	1705	1740	0707	0738	1751	1823	0617	0647	1833	1903
14	0738	0812	1707	1741	0705	0736	1753	1824	0615	0645	1834	1905
15	0737	0811	1708	1742	0704	0735	1754	1826	0613	0643	1836	1906
16	0737	0811	1710	1744	0702	0733	1756	1827	0611	0641	1837	1907
17	0736	0810	1711	1745	0700	0732	1758	1829	0609	0639	1838	1909
18	0735	0809	1712	1746	0659	0730	1759	1830	0607	0637	1840	1910
19	0735	0809	1714	1748	0657	0728	1801	1832	0605	0635	1841	1912
20	0734	0808	1715	1749	0655	0726	1802	1833	0603	0634	1843	1913
21	0733	0807	1717	1750	0654	0725	1804	1835	0601	0632	1844	1915
22	0733	0806	1718	1752	0652	0723	1805	1836	0559	0630	1846	1916
23	0732	0805	1719	1753	0650	0721	1807	1837	0557	0628	1847	1917
24	0731	0804	1721	1754	0649	0719	1808	1839	0555	0626	1848	1919
25	0730	0803	1722	1756	0647	0718	1810	1840	0553	0624	1850	1920
26	0729	0802	1724	1757	0645	0716	1811	1842	0551	0622	1851	1922
27	0728	0801	1725	1758	0643	0714	1813	1843	0549	0620	1852	1923
28	0727	0800	1727	1800	0642	0712	1814	1845	0547	0618	1854	1924
29	0726	0759	1728	1801					0645	0716	1955	2026
30	0725	0758	1730	1803					0643	0714	1957	2027
31	0724	0756	1731	1804					0641	0712	1958	2029

2026	FIR SWITZERLAND (LT)											
Day	APR				MAY				JUN			
	1	2	3	4	1	2	3	4	1	2	3	4
1	0639	0710	1959	2030	0541	0615	2040	2114	0501	0539	2117	2156
2	0637	0708	2001	2032	0540	0613	2042	2116	0500	0539	2118	2157
3	0635	0706	2002	2033	0538	0612	2043	2117	0500	0538	2119	2158
4	0633	0704	2004	2035	0536	0610	2045	2119	0459	0538	2120	2159
5	0631	0702	2005	2036	0535	0609	2046	2120	0458	0537	2121	2200
6	0629	0700	2006	2037	0533	0607	2047	2122	0458	0537	2121	2201
7	0627	0658	2008	2039	0531	0606	2048	2123	0457	0536	2122	2201
8	0625	0656	2009	2040	0530	0605	2050	2125	0457	0536	2123	2202
9	0623	0654	2010	2042	0528	0603	2051	2126	0456	0536	2124	2203
10	0621	0652	2012	2043	0527	0602	2052	2128	0456	0535	2124	2204
11	0619	0650	2013	2045	0525	0600	2054	2129	0456	0535	2125	2204
12	0617	0648	2014	2046	0524	0559	2055	2131	0456	0535	2125	2205
13	0615	0647	2016	2048	0522	0558	2056	2132	0455	0535	2126	2206
14	0613	0645	2017	2049	0521	0556	2057	2133	0455	0535	2126	2206
15	0611	0643	2019	2051	0519	0555	2059	2135	0455	0535	2127	2207
16	0609	0641	2020	2052	0518	0554	2100	2136	0455	0535	2127	2207
17	0607	0639	2021	2054	0517	0553	2101	2138	0455	0535	2128	2207
18	0605	0637	2023	2055	0515	0552	2102	2139	0455	0535	2128	2208
19	0603	0635	2024	2057	0514	0551	2104	2140	0455	0535	2128	2208
20	0601	0634	2025	2058	0513	0550	2105	2142	0455	0535	2129	2208
21	0559	0632	2027	2100	0512	0549	2106	2143	0455	0535	2129	2209
22	0558	0630	2028	2101	0510	0547	2107	2144	0456	0536	2129	2209
23	0556	0628	2030	2103	0509	0547	2108	2146	0456	0536	2129	2209
24	0554	0627	2031	2104	0508	0546	2109	2147	0456	0536	2129	2209
25	0552	0625	2032	2105	0507	0545	2110	2148	0457	0536	2129	2209
26	0550	0623	2034	2107	0506	0544	2111	2149	0457	0537	2129	2209
27	0548	0622	2035	2108	0505	0543	2112	2150	0458	0537	2129	2209
28	0547	0620	2036	2110	0504	0542	2113	2152	0458	0538	2129	2209
29	0545	0618	2038	2111	0503	0541	2114	2153	0459	0538	2129	2209
30	0543	0617	2039	2113	0503	0541	2115	2154	0459	0539	2129	2208
31					0502	0540	2116	2155				

ETE

2026	FIR SWITZERLAND (LT)											
Day	JUL				AUG				SEP			
	1	2	3	4	1	2	3	4	1	2	3	4
1	0500	0539	2129	2208	0534	0610	2103	2138	0618	0650	2010	2042
2	0501	0540	2128	2208	0536	0611	2101	2137	0619	0651	2008	2039
3	0501	0541	2128	2207	0537	0612	2100	2135	0621	0652	2006	2037
4	0502	0541	2128	2207	0538	0613	2059	2133	0622	0653	2004	2035
5	0503	0542	2127	2207	0540	0615	2057	2132	0623	0655	2002	2033
6	0504	0543	2127	2206	0541	0616	2056	2130	0625	0656	2000	2031
7	0504	0543	2127	2205	0543	0617	2054	2129	0626	0657	1958	2029
8	0505	0544	2126	2205	0544	0618	2053	2127	0628	0659	1956	2027
9	0506	0545	2126	2204	0545	0620	2051	2125	0629	0700	1954	2025
10	0507	0546	2125	2204	0547	0621	2049	2123	0630	0701	1952	2023
11	0508	0547	2124	2203	0548	0622	2048	2122	0632	0703	1950	2021
12	0509	0548	2124	2202	0550	0624	2046	2120	0633	0704	1948	2019
13	0510	0549	2123	2201	0551	0625	2045	2118	0634	0705	1946	2017
14	0511	0550	2122	2200	0553	0626	2043	2116	0636	0706	1944	2015
15	0512	0550	2121	2159	0554	0627	2041	2114	0637	0708	1942	2013
16	0514	0551	2121	2158	0555	0629	2039	2113	0638	0709	1940	2011
17	0515	0552	2120	2157	0557	0630	2038	2111	0640	0710	1938	2009
18	0516	0554	2119	2156	0558	0631	2036	2109	0641	0712	1936	2007
19	0517	0555	2118	2155	0600	0633	2034	2107	0642	0713	1934	2005
20	0518	0556	2117	2154	0601	0634	2033	2105	0644	0714	1932	2003
21	0520	0557	2116	2153	0603	0635	2031	2103	0645	0716	1930	2001
22	0521	0558	2115	2152	0604	0637	2029	2101	0647	0717	1928	1959
23	0522	0559	2114	2151	0605	0638	2027	2059	0648	0718	1926	1957
24	0523	0600	2113	2149	0607	0639	2025	2057	0649	0720	1924	1954
25	0525	0601	2112	2148	0608	0640	2023	2055	0650	0721	1922	1952
26	0526	0602	2110	2147	0610	0642	2022	2053	0652	0722	1920	1950
27	0527	0604	2109	2145	0611	0643	2020	2052	0653	0723	1918	1948
28	0529	0605	2108	2144	0612	0644	2018	2050	0654	0725	1916	1946
29	0530	0606	2107	2143	0614	0646	2016	2048	0656	0726	1914	1944
30	0531	0607	2105	2141	0615	0647	2014	2046	0657	0727	1912	1942
31	0533	0608	2104	2140	0617	0648	2012	2044				

2026	FIR SWITZERLAND (LT)											
Day	OCT				NOV				DEC			
	1	2	3	4	1	2	3	4	1	2	3	4
1	0658	0729	1910	1940	0641	0713	1714	1746	0720	0755	1643	1718
2	0700	0730	1908	1938	0642	0714	1713	1745	0721	0756	1643	1718
3	0701	0732	1906	1937	0644	0716	1711	1743	0722	0757	1643	1717
4	0703	0733	1904	1935	0645	0717	1710	1742	0724	0758	1642	1717
5	0704	0734	1902	1933	0646	0719	1709	1741	0725	0800	1642	1717
6	0705	0736	1900	1931	0648	0720	1707	1739	0726	0801	1642	1717
7	0707	0737	1858	1929	0649	0721	1706	1738	0727	0802	1641	1717
8	0708	0738	1856	1927	0651	0723	1704	1737	0728	0803	1641	1716
9	0709	0740	1855	1925	0652	0724	1703	1736	0729	0804	1641	1716
10	0711	0741	1853	1923	0653	0726	1702	1734	0729	0805	1641	1716
11	0712	0742	1851	1921	0655	0727	1701	1733	0730	0806	1641	1716
12	0713	0744	1849	1919	0656	0729	1659	1732	0731	0806	1641	1717
13	0715	0745	1847	1918	0657	0730	1658	1731	0732	0807	1641	1717
14	0716	0747	1845	1916	0659	0732	1657	1730	0733	0808	1641	1717
15	0717	0748	1843	1914	0700	0733	1656	1729	0734	0809	1642	1717
16	0719	0749	1841	1912	0702	0735	1655	1728	0734	0810	1642	1717
17	0720	0751	1840	1910	0703	0736	1654	1727	0735	0810	1642	1718
18	0721	0752	1838	1909	0704	0738	1653	1726	0736	0811	1643	1718
19	0723	0754	1836	1907	0705	0739	1652	1725	0736	0812	1643	1718
20	0724	0755	1834	1905	0707	0740	1651	1724	0737	0812	1643	1719
21	0726	0757	1832	1903	0708	0742	1650	1724	0737	0813	1644	1719
22	0727	0758	1831	1902	0709	0743	1649	1723	0738	0813	1644	1720
23	0728	0759	1829	1900	0711	0745	1648	1722	0738	0814	1645	1720
24	0730	0801	1827	1858	0712	0746	1648	1722	0739	0814	1645	1721
25	0631	0702	1726	1757	0713	0747	1647	1721	0739	0815	1646	1721
26	0633	0704	1724	1755	0714	0749	1646	1720	0739	0815	1647	1722
27	0634	0705	1722	1754	0716	0750	1645	1720	0740	0815	1647	1723
28	0635	0707	1721	1752	0717	0751	1645	1719	0740	0815	1648	1724
29	0637	0708	1719	1751	0718	0752	1644	1719	0740	0816	1649	1724
30	0638	0710	1718	1749	0719	0754	1644	1718	0740	0816	1650	1725
31	0639	0711	1716	1748					0741	0816	1651	1726

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1 Altimeter Settings

1.1 Altimeter setting regions

Switzerland is divided into the following three altimeter setting regions:

a) Altimeter setting region Zurich;
b) Altimeter setting region Geneva;
c) Altimeter setting region Ticino, TICINO (south of the line Passo San Giacomo, Pizzo Rotondo, Pizzo Centrale, Passo del Lucomagno, Splügen Pass).

The atmospheric pressure for TICINO is to be requested from the flight information centre (FIC) or the aviation weather centres Geneva and Zurich. Flights performed according to visual flight rules are obliged to use the QNH values for the appropriate altitude setting region.

1.2 Altimeter setting

The cruising altitudes at which a flight or segment of a flight is to be performed are to be indicated as:

a) flight levels for flights in or above the lowest usable flight level or, if applicable, above the transition altitude;
b) heights for flights below the lowest usable flight level or, if applicable, below the transition altitude.

1.2.1 Cruising levels

Unless otherwise specified in air traffic control clearances, flights under visual flight rules shall be performed during horizontal cruising if they are above 900 m (3000 ft) above the ground or water at a cruising level specified in accordance with the route above ground in the cruise altitudes table in Appendix 3 to the Regulation (EU) No 923/2012 (SERA Regulation).

1.3 Checking the altimeter

It is the duty of the aircraft commander or any other authorised aircraft crew member to check the altimeter(s) for correct readings before the start of a flight; the permissible deviations are as follows:

Aerodrome AMSL	Permitted deviation for an altimeter range of	
ft	0-30 000 ft	0-50 000 ft
Below 3500	60	80
3500-4000	75	115
4000-5000	80	125
5000-6000	85	135

2 **Low overflights over aerodromes**

Pilots must observe legally defined minimum flight altitudes (see SERA.5005 (f)). There are a number of instances in which breaching these minimum flight altitudes is permitted (see Art. 28 VRV-L). A differentiation must be made between the following types of low overflights over aerodromes:

"Low pass"

- Purpose: "to fly past the control tower or other observation point for the purpose of visual inspection on the ground" (in accordance with ICAO and SERA). A request for and clearance of a "low pass" are always issued in connection with a situation that is out of the ordinary, i.e. a "problem or emergency situation".
- Application: The aerodrome control tower or another unit on the ground can carry out a "visual inspection" of the aircraft (e.g. visual check to determine if there is a problem with the landing gear).
- Pilot request: The reason for a "low pass" must be communicated on the frequency.
- Manoeuvre: The aircraft flies past the aerodrome control tower or above another unit on the ground at a constant altitude.
- Minimum flight altitude: The pilot may descend below the minimum flight altitude in agreement with the chief of aerodrome or another unit on the ground (aerodromes without Air Traffic Services) or with clearance from the responsible air traffic control unit (controlled aerodromes) and without the need for further approval from the Federal Office of Civil Aviation (FOCA).

"Low approach"

- Description: "to make an approach along, or parallel to a runway, descending to a minimum level" or altitude.
- Purpose: The request for and clearance of a "low approach" shall only be made/issued for training purposes or e.g. for survey flights for checking navigation systems and testing on-board instruments after maintenance.
- Pilot request: The reason for a "low approach" must be communicated on the frequency.
- Manoeuvre: The aircraft descends to a minimum altitude (usually up to the threshold of the RWY in use or as agreed between the pilot and the ATCO), carries out a go-around manoeuvre and rejoins normal aerodrome traffic flow afterwards.
- Minimum flight altitudes: An aircraft may descend below the minimum flight altitudes during an approach to an aerodrome with the intent of performing a go-around or missed approach without having been given approval by the FOCA. The air traffic controller (ATCO) must only subsequently combine the approval with an altitude restriction if this is required for ATC reasons (or other requirements, e.g. noise restrictions).

Other instances of low overflights over aerodromes

If a low overflight over an aerodrome is requested or carried out for reasons/purposes other than the two mentioned above, this cannot be said to be a "low approach" or a "low pass". The minimum flight altitudes must generally be observed during such overflights. Flying below the minimum flight altitudes requires prior approval from the FOCA. The pilot is responsible for observing the flight altitude approved by the FOCA (which is below the minimum flight altitude).

3 Powered Gliders

For powered gliders with running engine the traffic rules for aircraft apply, for powered gliders with the engine off the traffic rules for gliders are applicable.

A towing vehicle (powered aircraft tows glider) is considered to be a powered aircraft.

4 **Procedures for Flying in Clouds**

Flying in clouds is defined as an instrument flight according to Art. 25 VRV-L.

4.1 **Conditions for flying in clouds**

- outside CTR/TMA
- outside airspace class G
- outside LSR for gliders
- outside the P/R/D areas
- SR-SS, ATC clearance required for every procedure for flying in clouds
- Transponder required
- Two-way radio communications required

4.2 **Authorisation procedures**

Clearance to perform a flight in clouds can be requested on the following radio frequencies:

- ALPS RADAR FREQ 119.225 MHz En,
  Zurich Information FREQ 124.700 MHz Ge/En.
- ALPS RADAR FREQ 119.175 MHz En,
  Geneva Information FREQ 126.350 MHz Fr/En.

Every request must include the following information:

- Call sign
- Flight position
- Planned upper level
- Planned route
- Planned time frame

Clearance must be obtained for every flight into clouds.

5 **Mountain Flights**

5.1 **General**

The terrain of the high mountains and the special weather conditions prevailing requires compliance with the following guidelines in order to prepare VFR flights over the Alps.

Crossing the Alps in a N-S direction and vice-versa is to be planned in such a way that the shortest route over inaccessible terrain is taken.

5.2 **Routes**

The following main routes are recommended if weather is good:

a) Zurich - Lake Lucerne - Reusstal - Andermatt - Gotthard Pass - Val Leventina - Locarno;
b) Bern - Spiez - Kandersteg - Gemmi Pass - Visp - Brig - Simplon Pass - Domodossola;
c) Altenrhein - Sargans - Chur - Lenzerheide - Julier Pass - Samedan.

The 3 routes mentioned above, as other recommended routes for VFR crossing of the Alps, are entered on the **Aeronautical Chart ICAO, 1:500 000 (2253-B) Switzerland**.

5.3 **Regulations and recommendations**

- The mountains should not be crossed above a blanket of clouds. The greater flight altitudes required and the associated sharp drop in engine power could lead to unexpected flight irregularities under instrument meteorological conditions (IMC) between hidden mountain peaks.
- Vertical air currents in the mountains are much stronger than in the lowlands. Passes should therefore be approached with a safety margin of at least 1000 ft AGL (300 m) and from the side in such a way that a return curve can be performed without danger if the terrain behind the pass is covered by clouds.
- A pass should not be crossed in a climb, but horizontally or in a descent with sufficient airspeed, in order to be able to fly through downwind zones fast.
- Pilots with limited experience in mountain flying should avoid crossing the Alps or turn around in plenty of time:
  a) In "Föhn" situations:
  b) If the weather forecast states: “Alps in clouds”
  c) If the formation of a thunderstorm is observed;
  d) If there is shower activity (even in summer);
  e) If the cloud base over the Alps is too low.

5.4 **Safety precautions**

It is recommended to file an ATC flight plan before crossing the Alps and carry a portable ELT (emergency transmitter).

In addition, it is recommended: to take warm clothing, blankets, signal lamps or signal flares, as well as emergency rations.

In case of emergency landings in the Alps it is recommended to stay with the aircraft and not to make dangerous descents over glaciers or rocks without suitable equipment and without mountain experience.

If possible, distress calls with the aircraft transmitter should not only be made on the emergency frequency **121.500 MHz**, but also on the corresponding FIC FREQ and to an airspace working FREQ (COM 2-APP 1/2).

6 **Helicopter and Balloon Take-offs in Ground Mist or Low Stratus**

If the minimum conditions for take-offs according to visual flight rules because of ground mist or low stratus are not fulfilled, take-off is permitted if:

a) the lower limit of the fog layer is not higher than 200 m above the take-off area and the layer itself does not exceed 300 m in density;
b) if visual meteorological conditions prevail above the layer of fog and
c) the take-off is performed in accordance with the procedures set out by the FOCA.

The buoyancy shall be measured so that a height of at least 300 m over the top of the fog layer is reached 5 min after take-off.

For helicopters, such DEP are only permitted for special operations in accordance with article 4, paragraph 1 of Commission Implementing Regulation (EU) No.923/2012 and other state flights. A special approval by FOCA is required. For Balloons, such departures are only permitted in Class G airspace (Art.24 VRV-L).

If the take-off takes place **outside a control zone (CTR) and/or does not continue to a terminal control area (TMA) or control zone (CTR)**, the pilot transmits the information about his take-off in ground mist or low stratus on frequency **130.805 MHz** as a **blind transmission**.

Example:

TRAFFIC LANGENTHAL AREA, [CALLSIGN], HELI DEPARTURE IN FOG FROM MADISWIL, HEADING 060 IN 1 MINUTE.

If there is no call from another aircraft, the pilot can commence his fog penetration procedure.

Completion of the procedure is reported on frequency 130.805 MHz as a blind transmission.

Example:

[CALLSIGN], FOG DEPARTURE COMPLETED, AREA MADISWIL, 3000 FEET.

If a take-off commences **within a control zone (CTR) and/or continues to a terminal control area (TMA) or control zone (CTR)**, the pilot requests clearance on the frequency of the **responsible air traffic control** before take-off.

7 **Special Regulations for Untethered Balloon Flights**

7.1 **General**

Flights with untethered balloons are governed by:

- regulations dated 20 May 2015 governing the traffic rules for aircraft (VRV-L) and the
- following special rules.

7.2 **Radio communications**

5 MIN before entering class C and D airspaces, two-way radio communication with the appropriate ATC unit is to be established and maintained during the flight, provided that propagation conditions permit.

If radio communications fail during the flight in **airspaces C and D**, proceed as follows:

a) select SSR transponder code 7600 if continuing the flight the last reported altitude (AMSL), or a lower altitude is to be maintained,
or
b) the controlled airspace is to be vacated by the quickest route (laterally or vertically).

7.3 **Take-off in ground mist**

See RAC 4-5-3 § 5

7.4 **Night flights**

At the latest 3 hours before take-off a flight plan is to be submitted to the responsible ATS unit.

During MIL night flight operations the routes and air spaces published with a NOTAM in accordance with VFR RAC are to be avoided.

For flights in airspace class E the transponder Mode A code 7000 shall be set.

7.5 **Cross-border balloon flights**

In accordance with RAC 4-2-1, §1.4, the cross-country flight plan form issued by the Federal Office of Civil Aviation (FOCA) for cross-border balloon flights must be carried where states do not require a flight plan.

At present, both Austria and Germany do not require a flight plan for balloons.

The cross-country flight plan form can be obtained from:

Federal Office of Civil Aviation

CH-3003 Bern

Email: sbfl@bazl.admin.ch

Website: https://www.bazl.admin.ch/en/flight-school

If a flight plan has not been filed, an alerting service will be subject to a delay. Flight plans are monitored and an emergency will be declared if an arrival report has not been submitted (SERA.4020).

8 **Operation of Water-based Aircraft**

8.1 **General**

When two aircraft or an aircraft and a vessel are approaching on the water and there is a risk of collision, pilots shall take into account the limited mobility of the vehicles involved and manoeuvre them carefully.

8.2 **Crossing routes**

An aircraft approached by another aircraft or vessel from the right shall avoid it in such a way as to maintain a sufficient distance.

8.3 **Vehicles approaching head on**

An aircraft directly approaching another aircraft or vessel, or approximately so, shall alter its heading to the right and maintain sufficient distance.

8.4 **Overtaking**

The overtaken vessel or aircraft shall have the right of way; the overtaking vehicle is to change its heading in order to maintain a sufficient distance.

8.5 **Take-off and landing**

An aircraft that is landing or taking off on water shall maintain a sufficient distance from all ships and avoid impeding their course.

8.6 **Lights to be displayed**

During the night, all aircraft on the water operate the lights according to SERA3215 of the regulation (EU) No. 923/2012 (SERA regulation); no lights may be operated that could be confused with the ones prescribed.

9 **Procedures for HEMS Flights (Medical Emergency Helicopter Flights) in Active Airspace Restriction Zones**

HEMS flights are only helicopter flights that are carried out for the purpose of medical emergency assistance, where immediate transport is unavoidable, and are approved as such by the FOCA.

Authorisations for entry into active restricted flight zones or take-offs in active restricted flight zones are to be issued for HEMS flights in accordance with the following procedure:

HEMS flights are to contact the location indicated in the table below by radio using the following phraseology 5 minutes, or as soon as possible, before entering the restricted area:

Example:

"(CS): REQUEST PRIORITY FOR HEMS-MISSION IN RESTRICTED AREA AXALP"

If there is no radio contact, the Range Control Officer (RCO) must be contacted by telephone before entering the restricted area.

Subsequently, all activities in the restricted flight area which could endanger the HEMS operation are to be suspended until the end of the HEMS operation within the restricted flight area concerned.

The end of the HEMS flight within the active flight restriction area is reported using the following phraseology:

Example:

"(CS): HEMS OPERATION COMPLETED LEAVING RESTRICTED AREA AXALP"

Zone	Coordination Unit	Frequency	Phone no.*
LSR4 (LSR4A) LAKE NEUCHÂTEL (FOREL)	PAYERNE TWR Range Control Officer (RCO)	128.680 MHz N/A	+41 (0) 26 662 20 88 +41 (0) 26 662 21 64/65
LSR6 AXALP	MEIRINGEN TWR Range Control Officer (RCO)	130.155 MHz N/A	N/A +41 (0) 41 679 72 57/55
LSR8 (LSR8A) DAMMASTOCK	Range Control Officer (RCO) Call sign: Romeo 8	128.380 MHz	+41 (0) 41 888 63 00
LSR11 (LSR11A) ZUOZ/S-CHANF	Range Control Officer (RCO) Call sign: Romeo 11	135.480 MHz	+41 (0) 81 854 05 53
LSR13 AXALP	MEIRINGEN TWR Range Control Officer (RCO)	130.155 MHz N/A	N/A +41 (0) 41 679 72 57/55
TEMPO RESTRICTED AREA FOR PATROUILLE SUISSE DISPLAYS	Display Director Call sign: TIGER	130.805 MHz	N/A
TEMPO RESTRICTED AREA FOR PC-7 TEAM DISPLAYS	Display Director Call sign: TURBO	130.805 MHz	N/A
*No information. Information about activation REF: RAC "Flight restriction areas".			

Danger Zones		
Designation and Name	**Type of danger**	**Activation hours: HR LT Remarks**
1	**2**	**3**
LSD3 **GRANDVILLARD**	MIL aviation activities	Activation hours: see **DABS** Information about current activities can be requested on frequency **135.480** MHz or telephone no. **+41 (0) 44 813 31 10**.
LSD5 **ERISWIL**	MIL aviation activities (Air-to-ground target practice)	Activation hours: see **DABS** Information about current activities can be requested via Zurich Information **124.700** MHz or via telephone no. **+41 (0) 44 813 31 10**.
LSD10 **BREIL/BRIGELS**	MIL aviation activities	Activation hours: see **DABS** Information about current activities can be requested on frequency **135.480** MHz or telephone no. **+41 (0) 44 813 31 10**.
LSD12 **SIHLTAL**	Firing practice	03 JAN - 31 DEC TUE - FRI: 0800 - 2300
LSD14 **GASTERNTAL**	a) Anti-aircraft firing b) Unmarked high cablecars c) Daily marking do/id.	Activation hours: see **DABS**
Daily Airspace Bulletin Switzerland (DABS)		

10 Interception Procedure

10.1 Principle

An aircraft equipped with an airborne collision avoidance system (ACAS), which is being intercepted, may perceive the interceptor as a collision threat and thus initiate an avoidance manoeuvre in response to an ACAS resolution advisory. Such a manoeuvre might pose a potential danger to other civil aircraft and/or be interpreted by the interceptor as an indication of unfriendly intentions.

It is important, therefore, that the crew of intercepting aircraft equipped with a secondary surveillance radar (SSR) transponder suppress the transmission of pressure altitude information within a range of at least 20 NM of the aircraft intercepted.

The following procedures and visual signals apply over Swiss territory in the event of interception of an aircraft.

10.2 Procedure for the aircraft intercepted

An aircraft which is intercepted by another aircraft shall immediately:

a) follow the instructions given by the intercepting aircraft, interpreting and responding to the **visual signals** in accordance with the specifications on page VFR RAC;
b) notify, if possible, the appropriate air traffic services unit;
c) attempt to establish radio communication with the intercepting aircraft or the appropriate intercept control unit by making a general call on the emergency frequency **121.500 MHz** giving the identity of the intercepted aircraft and the nature of the flight, and if no contact has been established, and if practicable, by repeating this call on the emergency frequency **243 MHz**;
d) if equipped with an SSR transponder select mode A code 7700, unless instructed otherwise by the appropriate air traffic services unit.

If radio contact is established during interception but communication in a common language is not possible, attempts shall be made to convey instructions, acknowledgement of instructions and essential information by using the phrases and pronunciations in the table on page VFR RAC and transmit each phrase twice.

If any instructions **received by radio** from any sources conflict with those given by the intercepting aircraft **by visual signals**, the intercepted aircraft shall request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft.

If any instructions **received by radio** from any sources conflict with those given by the intercepting aircraft **by radio**, the intercepted aircraft shall request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft.

10.3 **Signals from the intercepting aircraft and responses from the aircraft intercepted.**

Table A (1)

Signals from the intercepting aircraft and responses from the aircraft intercepted.

Series	Signals from the INTERCEPTING AIRCRAFT	Meaning	Response from the INTERCEPTED AIRCRAFT	Meaning
1	DAY or NIGHT - From a position normally left (or right in the case of a helicopter) and slightly above and in front of the intercepted aircraft, rocking the wings and flashing the navigation lights (landing lights in the case of a helicopter) at irregular intervals and, after confirmation of the signal, flat horizontal curve, normally to the left (or right in the case of a helicopter) on desired course. *Note 1. - Weather conditions or terrain may require the interceptor aircraft to be positioned slightly above and to the right of the intercepted aircraft and make a subsequent turn to the right.* *Note 2. - If the intercepted aircraft is unable to keep pace with the intercepting aircraft, the intercepting aircraft shall fly a series of circuits and rock the wings each time it passes the intercepted aircraft.*	You have been intercepted. Follow me.	DAY or NIGHT - Rocking movement with the wings and at irregular intervals a sequence of flashing signals with the navigation lights and follow. *Note - Additional action to be taken, → RAC*	Understood, I will comply.
2	DAY or NIGHT - An abrupt break away and climbing 90° turn or more, without endangering the path of the intercepted aircraft.	You may proceed.	DAY or NIGHT - Rocking movement with the wings	Understood, I will comply.
3	DAY or NIGHT - Extend the landing gear (if possible), turning on the landing lights and overflying the runway in use. If the intercepted aircraft is a helicopter, fly over the helipad. In the case of helicopters, the intercept helicopter makes a landing approach and hovers close above the landing site.	Land at this aerodrome.	DAY or NIGHT - Extend landing gear (if possible), turn on lights and follow the intercepting aircraft and, if landing is considered safe after overflying the runway, initiate landing.	Understood, I will comply.
4	DAY or NIGHT - Firing of decoys (flares - pyrotechnic set which produces a bright, white light and smoke and is visible from a distance).	You have failed to heed the instructions. This is a warning shot Follow the instructions or you risk being shot down.	DAY or NIGHT - Rocking movement with the wings and at irregular intervals a sequence of flashing signals with the navigation lights, or signals as described in Table A2.	Understood, I will comply or according to the signals in Table A2.

Table A (2)				
Signals from the intercepting aircraft and responses from the aircraft intercepted.				
Series	Signals from the IINTERCEPTED AIRCRAFT	Meaning	Response from the INTERCEPTING AIRCRAFT	Meaning
5	DAY or NIGHT - Retraction of the landing gear (if fitted) and a sequence of flashing lights with the landing lights while overflying the runway in the landing direction or the helipad at an altitude of more than 300 m (1000 ft) but below 600 m (2000 ft) (in the case of a helicopter at a height of more than 50 m (170 ft) but below 100 m (330 ft) above the aerodrome height) and remain on the aerodrome circuit corresponding to the runway in use or remain on the aerodrome circuit corresponding to the helipad. If it is not possible to provide flashing signals with the landing lights, any other available light shall be used for flashing.	The aerodrome you have designated for a landing is unsuitable.	DAY or NIGHT - If it is desired that the intercepted aircraft shall follow the intercepting aircraft to an alternate aerodrome, the intercepting aircraft retracts its landing gear (if any) and proceeds with series 1 signals for intercepting aircraft. If it is decided to allow the intercepted aircraft to continue flying, the intercepting aircraft will proceed with the series 2 signals.	Understood, follow me. Understood, you may proceed.
6	DAY or NIGHT - Regular switching on and off of all available lights in such a way that it can be distinguished from flashing lights.	I cannot comply.	DAY or NIGHT - The intercepting aircraft uses series 2 signals for intercepting aircraft.	Understood.
7	DAY or NIGHT- Irregular flashing of all available lights.	Emergency	DAY or NIGHT - The intercepting aircraft uses series 2 signals for intercepting aircraft.	Understood.

10.4 **Procedural terminology for radio telephony**

Procedural expressions used by the INTERCEPTING aircraft			Procedural expressions used by the aircraft INTERCEPTED		
Procedural term	Pronunciation [1]	Meaning	Procedural term	Pronunciation [1]	Meaning
CALL SIGN	KOL SA-IN	What is your call sign?	CALL SIGN	KOL SA-IN	My call sign is [2]
FOLLOW	FO-LO	Follow me	WILCO	VILL-KO	Understood I will follow the instructions
DESCEND	DI-SEND	Descend to land	CAN NOT	KANN NOTT	I cannot follow the instruction.
YOU LAND	YOU LAAND	Land at this aerodrome	REPEAT	RI-PITT	Please repeat your instruction
PROCEED	PRO-SID	Continue your flight	AM LOST	AMM LOSST	I don't know my location
			MAYDAY	MAYDAY	I have an emergency,
			HIJACK [3]	AÏ-JACK	I have been hi-jacked
			LAND (location)	LAAND	I want to land in (location)
			DESCEND	DI-SEND	I want to descend

1 In the pronunciation examples listed, the underlined syllables must be stressed.

2 The radio call sign is the one used in radio communications with air traffic control units and which serves to identify an aircraft in the flight plan.

3 Under certain circumstances the use of the term "HIJACK" may be neither possible nor desirable..

11 **Other Hazardous Activities and Potential Dangers**

11.1 **Anti-hail rocket firing**

Anti-hail rockets could pose a danger to aircraft. Aircraft, therefore, operating in controlled airspace, are informed about active rocket firing zones. (see chart VFR RAC)

- Anti-hail rocket firing zones can be activated at short notice.
- DABS contains no information about anti-hail rockets being fired.
- Information about active anti-hail rocket firing zones can be obtained from:

  - FIC GENEVA on 126.350 MHz (for firing in CTA GENEVA) or
  - FIC ZURICH on 124.700 MHz (for firing in CTA ZURICH).

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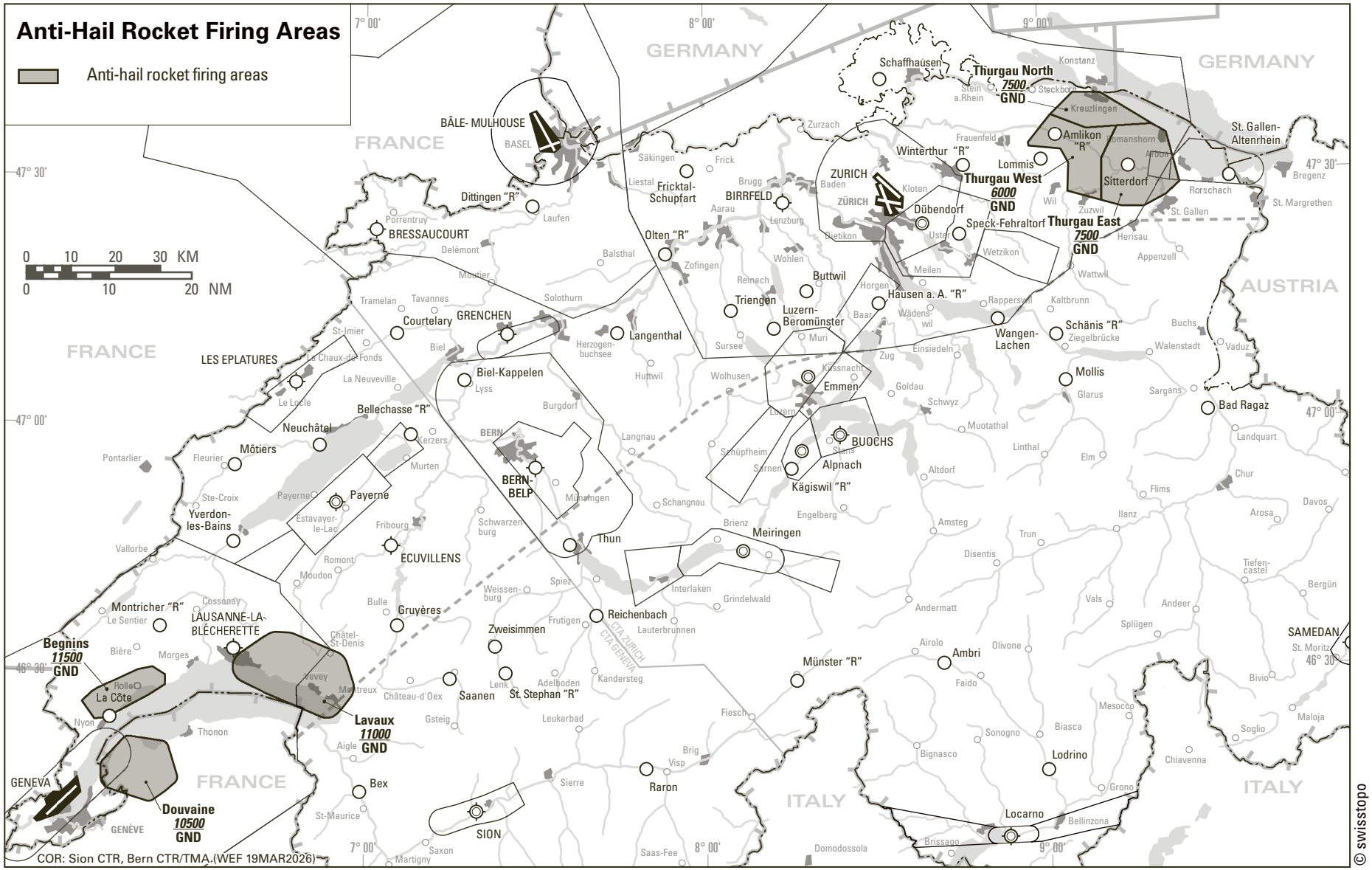

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AVALANCHE FIRINGS / LAWINENSCHIESSEN / TIRS D'AVALANCHE / TIRI CONTRO VALANGHE

UNTIL FURTHER NOTICE for the protection of population, railways and roads, snow accumulation will be dissolved, if necessary, by mortars.
Information about actual avalanche firing is available at: KOSIF, TEL 044 813 31 10

JUSQU'A NOUVEL AVIS les accumulations de neige seront dispersées selon les besoins à l'aide de lance-mines, pour assurer la sécurité de la population, des chemins de fer et des routes.
Des informations actuelles concernant les tirs d'avalanche sont à disposition auprès de: COTSENA, TEL 044 813 31 10

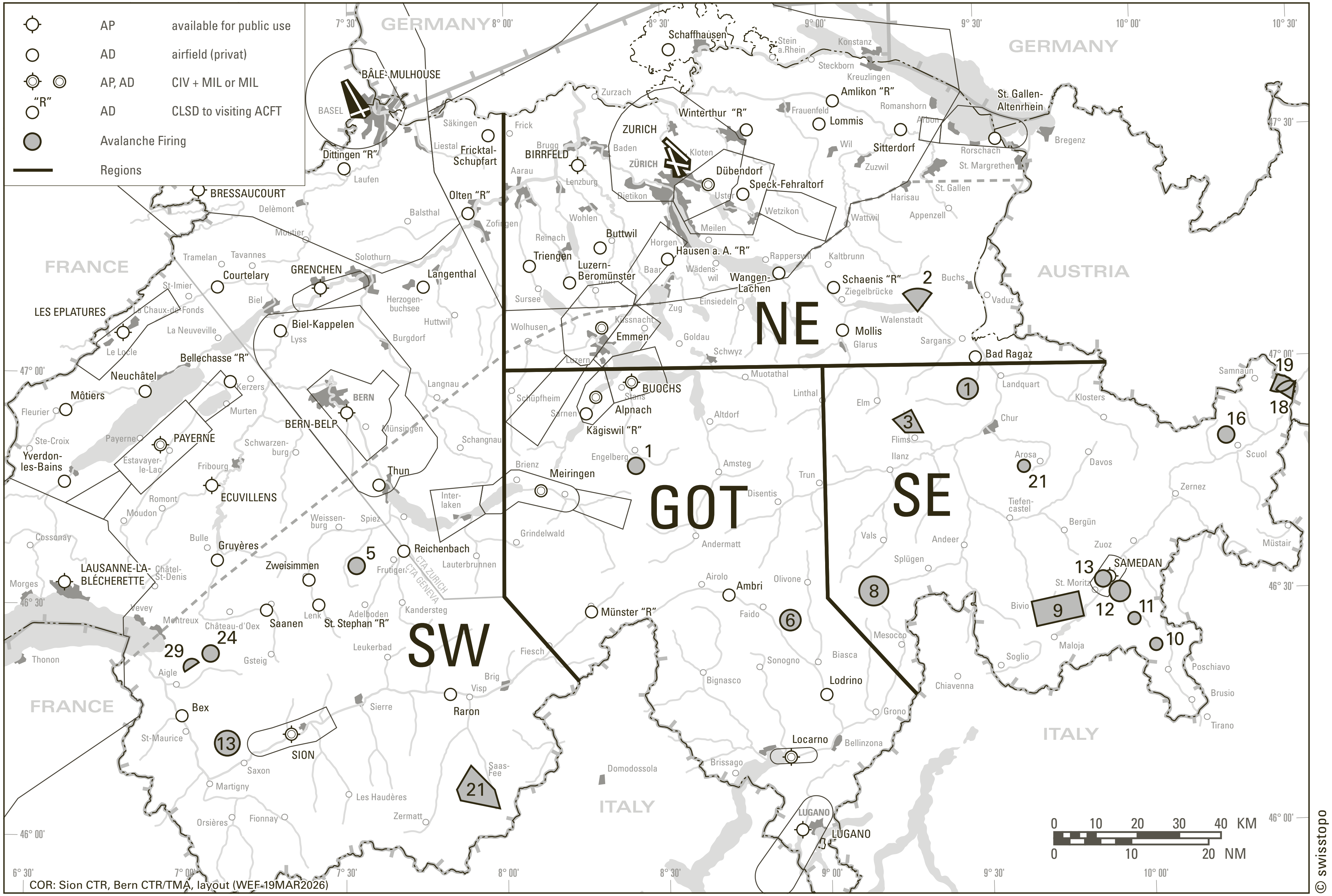
BIS AUF WEITERES werden zur Sicherheit der Bevölkerung und zur Sicherung von Bahnen und Strassen, Schneeansammlungen nötigenfalls mit Minenwerfern beschossen.
Informationen über aktuelle Lawinenschiessen sind erhältlich bei: KOSIF, TEL 044 813 31 10

FINO A NUOVO AVVISO veranno se necessario disperse le accumulazioni di neve con l'aiuto di lanciamine, per garantire la sicurezza della popolazione, delle ferrovie e strade.
Per attuali informazioni concernente ai tiri contro valanghe rivolgersi a: COTSINA, TEL 044 813 31 10

REGION + ZONE NR	ZONE PSN COORD WGS-84 + Swiss COORD (m)	ALT M (FT)
NORTHEAST		
NE 2	**WALENSTADT** (CTA Zurich) 470704N/0091811E (741.480/220.216) / 2.4km NNW Walenstadt / 340 - 035 DEG 5.5km (3.0NM)	*3800 (12500)*
SOUTHWEST		
SW 5	**SCHWENDEN/WIRIEHORN** (CTA Geneva) 463456N/0073147E (607.000/159.000) / 3.5km ENE Schwenden / Radius 2km (1.1NM)	*2600 (8500)*
SW 13	**GRAND MUVERAN** (CTA Geneva) 461158N/0070739E (575.999/116.500) / 4km S Grand Muveran / Radius 3km (1.6NM)	*2900 (9500)*
SW 21	**SAAS-FEE** (CTA Geneva) 460901N/0075304E (634.457/111.103) - 460555N/0075024E (631.054/105.337) - 460432N/0075106E (631.961/102.755) - 460328N/0075825E (641.416/100.841) - 460553N/0075727E (640.141/105.309) - 460901N/0075304E (634.457/111.103) / 1.1km SW Saas Fee	*5500 (18000)*
SW 24	**COL DES MOSSES** (CTA Geneva) 462334N/0070428E (571.999/138.000) / 2km WSW Col des Mosses / Radius 2km (1.1NM)	*2600 (8500)*
SW 29	**LEYSIN** (CTA Geneva) 462148N/0070058E (567.500/134.750) / 2.7km NNE Leysin / 235 - 055 DEG 2km (1.1NM)	*2600 (8500)*

GOTTHARD		
GOT 1	**ENGELBERG** (CTA Zurich) 464738N/0082428E (674.000/182.999) / 3km SSE Engelberg / Radius 2km (1.1NM)	*2800 (9200)*
GOT 6	**ACQUAROSSA** (CTA Zurich) 462722N/0085300E (711.000/145.999) / 4km W Acquarossa / Radius 2.5km (1.3NM)	*3000 (9800)*
SOUTHEAST		
SE 1	**VÄTTIS** (CTA Zurich) 465648N/0092718E (753.500/201.500) / 4.5km NNE Vättis / Radius 2.5km (1.3NM)	*3700 (12100)*
SE 3	**FLIMS Naraus** (Zurich Area) 465120N/0091517E (738.500/191.000) - 465117N/0091835E (742.700/191.000) - 465414N/0091633E (739.983/196.401) - 465306N/0091309E (735.700/194.200) - 465120N/ 0091517E (738.500/191.000) / 3.9km NNW Flims	*4000 (13100)*
SE 8	**HINTERRHEIN** (CTA Zurich) 463055N/0090844E (731.000/153.000) / 4.5km WSW Hinterrhein / Radius 3.5km (1.9NM)	*6000 (19700)*
SE 9	**BIVIO/SILVAPLANA** (CTA Zurich) 462726N/0093842E (769.500/147.500) - 462836N/0094733E (780.750/150.000) 0.9km SW Julierpass / Strip 6km (3.24NM) wide	*4900 (16100)*
SE 10	**PASSO DEL BERNINA** (CTA Zurich) 462304N/0100120E (798.732/140.304) / 3.2km S Passo del Bernina / Radius 1.5km (0.8NM)	*3400 (11200)*
SE 11	**PASSO DEL BERNINA** (CTA Zurich) 462630N/0095725E (793.499/146.500) / 6km WNW Passo del Bernina / Radius 2km (1.1NM)	*3200 (10500)*
SE 12	**PONTRESINA** (CTA Zurich) 463004N/0095451E (790.000/153.000) / 1.3km NE Pontresina / Radius 2.5km (1.3NM)	*3900 (12800)*
SE 13	**SAMEDAN** (CTA Zurich) 463145N/0095147E (786.000/156.000) / 0.7km SW Samedan / Radius 2km (1.1NM)	*3800 (12500)*
SE 16	**SCUOL** (CTA Zurich) 464950N/0101549E (815.500/190.500) / 4.5km NW Scuol / Radius 2km (1.1NM)	*3600 (11800)*
SE 18	**TSCHLIN** (CTA Zurich) 465406N/0102829E (831.300/199.000) / 6.4km NNE Tschlin / 305 - 010 Deg 4.8km (2.6NM)	*3900 (12800)*
SE 19	**SAMNAUN** (CTA Zurich) 465733N/0102559E (827.876/205.277) / 6.5km E Samnaun / 115 - 205 DEG 4.5km (2.4NM) Switzerland only	*4400 (14400)*
SE 21	**AROSA** (CTA Zurich) 464638N/0093732E (767.000/183.000) / 3.7km W Arosa / Radius 1km (0.5NM)	*2700 (8900)*

AVALANCHE FIRINGS LAWINENSCHIESSEN TIRS D'AVALANCHE TIRI CONTRO VALANGHE



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1 **Air Navigation Obstacles**

Term

Air navigation obstacles are installations, in particular buildings, cablecars, power lines, antennas, cables and wires, which hinder or endanger the movement of aircraft or the operation of air traffic control facilities.

Installations within the safety zones of aerodromes shall be designated as obstacles in accordance with ICAO standards if they compromise the AGA areas and have an impact on the final approach or the missed approach sectors.

Installations outside the safety zones of aerodromes are designated as obstacles if they compromise the obstacle identification area.

The obstacle identification area is an area which is measured at a vertical distance of 60 m to the terrain level.

The mean terrain level is the local height of the terrain or the tops in dense forests within a radius of 300 m around the obstacle.

Marking

Air navigation obstacles of this nature are marked and/or illuminated in accordance with ICAO standards and recommendations. Overhead lines, cable railways, cables and wires running over the obstacle identification area are marked with yellow or orange-red balls of at least 60 cm diameter at intervals of max. 40 m.

Publication of new obstacles

- New obstacles are announced by NOTAM

ElectronicTerrain and Obstacle Data

Under the current terms of use from swisstopo, Skyguide uses the official source from the swiss government:

URL: https://www.swisstopo.admin.ch/en/geoinformation-and-geodata

Federal Office of Topography swisstopo

Federal Office of Topography swisstopo

Post: Federal Office of Topography swisstopo
Seftigenstrasse 264
P.O. Box
3084 Wabern

Phone: +41 58 469 01 11

Fax: +41 58 469 04 59

Email: info@swisstopo.ch

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Luftfahrthindernisse
Avigation Obstacles

Als digitale Anwendungen der swisstopo in Zusammenarbeit mit dem BAZL verfügbar in:

As a swisstopo digital application in conjunction with the FOCA and to be found in:

Obstacles à la navigation aérienne
Ostacoli alla navigazione aerea

Sous la forme d'applications numériques de swisstopo en collaboration avec l'OFAC, disponible dans:

Disponibili come applicazioni digitali di swisstopo in collaborazione con l'UFAC in:

WEB-GIS Obstacle Map WeGOM: https://www.bazl.admin.ch/de/luftfahrthindernisse

swisstopo-App: https://www.swisstopo.admin.ch/de/swisstopo-app

Publikation von neuen Hindernissen
- Neue Hindernisse werden durch NOTAM bekannt gegeben

Publication of new obstacles
- New obstacles are announced by NOTAM

Publication de nouveaux obstacles
- Les nouveaux obstacles sont communiqués par NOTAM

Pubblicazione di nuovi ostacoli
- I nuovi ostacoli vengono segnalati mediante NOTAM

OBST auf den VAC und Regionalkarten → entsprechende AD INFO, § 12.

OBST sur les VAC et les cartes régionales → AD INFO respectives au § 12.

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VFR AREA/VAC Karten - Cartes AREA/VAC VFR - Carte AREA/VAC VFR - VFR AREA/VAC Charts Legende - Légende - Legenda - Legend

Allgemeine Informationen - Informations générales - Informazioni generali - General information

Magnetische Deklination mit Jahresangabe
Déclinaison magnétique avec spécification de l'année
Declinazione magnetica con specificazione dell'anno
Magnetic declination with year specification

Peilungen sind missweisend
Les directions sont magné tiques
I rivelamenti sono magnetici
Bearings are magnetic

Höhen über Meer in ft / Höhen über Grund in ft
Altitudes en ft / Hauteurs en ft
Altitudini in ft / Altezze in ft
Altitudes in ft / Heights in ft

Grundkarte - Carte de base - Base map

Kloster, Kirche / Cloître, Église /
Monastero, Chiesa / Monastery, Church

Schloss / Château / Castello / Castle

Fort / Fort / Forte / Fort

Fabrik / Fabrique / Fabbrica / Factory

Kühlturm / Tour de réfrigération /
Torre di raffreddamento / Cooling tower

Turm / Tour / Torre / Tower

Silo

Brennstofflager / Réservoir de carburant /
Serbatoi di carburante / Fuel tank farm

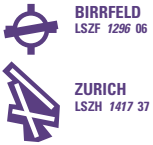
Spital / Hôpital / Ospedale / Hospital

Pass / Col / Passo / Pass

VFR AREA/VAC Karten - Cartes AREA/VAC VFR - Carte AREA/VAC VFR - VFR AREA/VAC Charts Legende - Légende - Legenda - Legend

Flugplätze - Aérodromes - Aerodromi - Aerodromes

Flugplatz dem öffentlichen Luftverkehr dienend, Hartbelagpiste
Aérodrome destinés au trafic public, piste en dur
Aerodromo destinato al traffico pubblico, pista in duro
Aerodrome available for public use, hard surface RWY



Flugfeld (privat), Hartbelagpiste
Champ d'aviation (privés), piste en dur
Campo d'aviazione (privato), pista in duro
Airfield (private), hard surface RWY

Flugfeld (privat), unbefestigte Piste
Champ d'aviation (privés), piste sans revêtement
Campo d'aviazione (privato), pista non pavimentata
Airfield (private), unpaved RWY

Zivil- und Militärflugplatz, Hartbelagpiste
Aérodrome civil et militaire, piste en dur
Aerodromo civile e militare, pista in duro
Joint civil and military aerodrome, hard surface RWY

Militärflugplatz, Hartbelagpiste
Aérodrome militaire, piste en dur
Aerodromo militare, pista in duro
Military aerodrome, hard surface RWY

Militärflugplatz, unbefestigte Piste
Aérodrome militaire, piste sans revêtement
Aerodromo militare, pista non pavimentata
Military aerodrome, unpaved RWY

Hubschrauberflugplatz
Héliport
Eliporto
Heliport

Segelfluggelände
Terrain de vol à voile
Terreno per il volo a vela
Gliding site

Flugplatz ausser Betrieb
Aérodrome hors service
Aerodromo fuori servizio
Aerodrome out of service

Wasserflugplatz
Place d'amerrissage
Aerodromo acqua
Seaplane landing site

VFR AREA/VAC Karten - Cartes AREA/VAC VFR - Carte AREA/VAC VFR - VFR AREA/VAC Charts
Legende - Légende - Legenda - Legend

Gebirgslandeplatz
Site d'atterrissage en montagne
Area di atterraggio in montagna
Mountain landing site

Winterflugplatz
Aérodrome d'hivier
Aerodromo invernali
Winter aerodrome

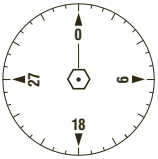
Navigation

Ungerichtetes Funkfeuer
Radiophare non directionnel
Radiofaro adirezionale
Non-directional radio beacon

NDB

Ultrakurzwellen-Drehfunkfeuer
Radiophare omnidirectionnel VHF
Radiofaro omnidirezionale VHF
VHF omnidirectional radio range beacon

VOR



Entfernungsmessgerät
Dispositif de mesure de distance
Appareggio misuratore di distanza
Distance measuring equipment

DME

VOR mit DME
VOR et DME
VOR e DME
VOR and DME

Obligatorischer Meldepunkt
Point de compte-rendu obligatoire
Punto di riporto obligatorio
Compulsory reporting point

Meldepunkt auf Anforderung
Point de compte-rendu sur demande
Punto di riporto a richiesta
Reporting point on-request

DIST/BRG vom VOR/DME zum Flugplatz
DIST/BRG du VOR/DME à l'aérodrome
DIST/BRG di VOR/DME al aerodromo
DIST/BRG from VOR/DME to the aerodrome

Gebiet für ersten Funkkontakt
Région pour le premier contact radio
Regione per il primo contatto radio
Area of first radio contact

VFR AREA/VAC Karten - Cartes AREA/VAC VFR - Carte AREA/VAC VFR - VFR AREA/VAC Charts Legende - Légende - Legenda - Legend

Flugverfahren – Procédures de vol – Procedura di volo – Flight procedures

Ein- und Ausflugroute mit Kursangabe (MAG)
Itinéraire d'arrivée et de départ avec relèvement (MAG)
Rotta d'arrivo e di partenza con direzione (MAG)
Arrival and departure route with bearing (MAG)

Platzrunde
Tour de piste
Circuito della pista
Aerodrome circuit

Alternative Route
Itinéraire alternatif
Rotta alternativa
Alternative route

HEL Route
Itinéraire HEL
Rotta HEL
HEL route

HEL Route bei Mischverkehr
Itinéraire HEL en cas de trafic mixte
Rotta HEL con traffico misto
HEL route in the event of mixed traffic

Bevorzugter Anflugsektor
Secteur ARR préférentiel
Settore ARR preferenziale
Preferred approach sector

Glider Route
Itinéraire planeur
Rotta per alianti
Glider route

Einflug für Glider
Approche pour planeur
Arrivo per alianti
Approach for gliders

Glider Absinkkreis
Circuit de descente planeur
Cerchio di discesa alianti
Descent circuit for gliders

TMA VFR Transit Route
Itinéraire transit VFR TMA
Rotta di transito VFR TMA
TMA VFR transit route

VFR AREA/VAC Karten - Cartes AREA/VAC VFR - Carte AREA/VAC VFR - VFR AREA/VAC Charts Legende - Légende - Legenda - Legend

Hindernisse - Obstacles - Ostacoli - Obstacles

Hindernis und Hindernisgruppe
Obstacle et groupe d'obstacles
Ostacolo e gruppo di ostacoli
Obstacle and group of obstacles

Hindernis und Hindernisgruppe, befeuert
Obstacle et groupe d'obstacles, éclairés
Ostacolo e gruppo di ostacoli, illuminati
Obstacle and group of obstacles, lighted

Ausserordentlich hoch (500 ft AGL oder höher), Gruppe
Exceptionnellement élevé (500 ft AGL ou plus haut), groupe
Eccezionalmente alto (500 ft AGL o superiore), gruppo
Exceptionally high (500 ft AGL or higher), group

Windturbine, befeuert und unbefeuert, Gruppe
Éolienne, éclairée et non éclairée, groupe
Turbina eolica, illuminata e non illuminata, gruppo
Wind turbine, lighted and unlighted, group

Spitzenhöhe in ft AMSL
Cote du sommet indiquée en ft AMSL
Altitudine della cima in ft AMSL
Elevation of top in ft AMSL

Starkstromleitung
Ligne à haute tension
Linea ad alta tensione
High voltage power line

AREA: Segment < 300 ft AGL in violett/violet/viola

Gespanntes Hindernis (Kabel, Seilbahn, usw.)
(mindestens ein Segment 25 m / 300 ft AGL oder mehr)
Obstacle filiforme (câble, téléphérique, etc.)
(au moins un segment de 25 m / 300 ft AGL ou plus)
Ostacolo filiforme (cavo, teleferica, ecc.)
(almeno un segmento di 25 m / 300 ft AGL o più)
Line obstruction (cable, cableway, etc.)
(at least one segment 25 m / 300 ft AGL or above)
VAC: Segment > 60 m AGL in rot/rouge/rosso/red
AREA: Segment > 300 ft AGL in rot/rouge/rosso/red

Hindernis oder Hindernisgruppe, Gebiet
Obstacle ou groupe d'obstacles, zone
Ostacolo o gruppo di ostacoli, zona
Obstacle or group of obstacles, area

Höchster Geländepunkt in ft AMSL
Altitude maximale du terrain en ft AMSL
Punto più alto di terreno in ft AMSL
Highest terrain elevation in ft AMSL

VFR AREA/VAC Karten - Cartes AREA/VAC VFR - Carte AREA/VAC VFR - VFR AREA/VAC Charts Legende - Légende - Legenda - Legend

Lufträume - Espaces aériens - Spazi aerea - Airspaces

Fluginformationsgebiet
Région d'information de vol
Regione d'informazione di volo
Flight information region

Kontrollbezirk / Fluginformationssektor
Région de contrôle / Secteurs d'information de vol
Regione di controllo / Servizio informazioni volo
Control area / Flight information sector

CTA / FIS

Flugplatzverkehrszone mit Obergrenze
Zone de circulation d'aérodrome avec plafond
Zona circolazione di aerodromo con limite superiore
Aerodrome traffic zone with ceiling

ATZ 1000 AGL

Fluginformationszone
Zone d'information de vol
Zone d'informazione di volo
Flight information zone

FIZ

CTR Luftraum Klasse
CTR espace aérien classe
Spazio aereo classe CTR
CTR airspace class

A
D

Luftraum Klasse
Espace aérien classe
Spazio aereo classe
Airspace class

A
C D
E G
G

TEMPO D siehe/voir/vedi/see: NOTAM/VFR GEN 1-0-5

D

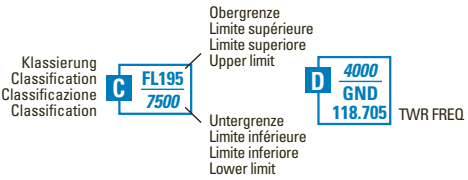
Gebiet mit Funkkommunikationspflicht
Zone à radio obligatoire
Zone radio obbligatoria
Radio mandatory zone

RMZ

Gebiet mit vorgeschriebener Transponderschaltung
Zone avec transpondeur obligatoire
Zone obbligatorio per il transponder
Transponder mandatory zone

TMZ

Luftraumspezifische Angaben
Indications spécifiques à l'espace aérien
Indicazioni specifiche allo spazio aereo
Airspace specifications

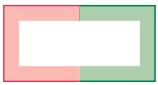


VFR AREA/VAC Karten - Cartes AREA/VAC VFR - Carte AREA/VAC VFR - VFR AREA/VAC Charts Legende - Légende - Legenda - Legend

Luftraumeinschränkungen - Espaces réglementés - Spazi regolamentati - Airspace Restrictions

Flugbeschränkungs- (R) oder Gefahrengebiet (D)
Zone réglementée (R) ou dangereuse (D)
Zone regolamentate (R) o pericolose (D)
Restricted (R) or danger area (D)

Reservat mit Mindestflughöhe / empfohlener Mindestflughöhe
Réserve avec altitude minimale / altitude minimale recommandée
Riserva con altitudine minime / altitudine min. consigliata
Reserve with minimum flight altitude / recommended min. flight altitude



Luftraumaktivitäten - Activités dans l'espace aérien - Attività in spazio aereo - Airspace Activities

Spezielle Regeln für Flugzeuge
Règles spéciales pour avions
Regole speciali per aeroplani
Special rules for aeroplanes

Hubschrauber
Hélicoptère
Elicottero
Helicopter

HEL

Segelflug
Vol à voile
Volo a vela
Glider

Windenstart
Décollage au treuil
Decolli al verricello
Winch-launching

Segelflugschlepp
Remorquage de planeurs
Rimorchio di alianti
Glider towing

Hängegleiter- und Gleitschrimgebiet
Zone pour deltaplanes et parapentes
Zona per alianti e parapendio
Hang-glider and paraglider area

Fallschirmabsprung
Saut en parachute
Attività paracadutistica
Parachute jumping

VFR AREA/VAC Karten - Cartes AREA/VAC VFR - Carte AREA/VAC VFR - VFR AREA/VAC Charts
Legende - Légende - Legenda - Legend

Freiballongelände
Terrain de ballon libre
Terreno per aerostati
Free balloon site

Diverses - Divers - Diverso - Miscellaneous

Segelflugsektor
Secteurs vélivoles
Settore con volo a vela
Glider area

Kunstflug mit Untergrenze
Vol acrobatique avec limite inférieure
Acrobazia con limite inferiore
Aerobatics with lower limit

Modellflug mit MAX Obergrenze
Aéromodélisme avec limite supérieure MAX
Aeromodellismo con limite MAX
Model aircraft with MAX limit

Parabox

Zone mit Einschränkung
Zone avec restriction
Zona con restrizione
Zone with restriction

Lärmempfindliches Gebiet
Zone sensible au bruit
Zone sensibili al rumore
Noise sensitive area

Trennlinie
Ligne de séparation
Linea di separazione
Separation line

IFR Anflugsbereich
Zone d'approche IFR
Area avvicinamento IFR
IFR approach area

Flugplatzkarten - Cartes d'Aérodrome - Carte d'Aerodromo - Aerodrome Charts
Legende - Légende - Legenda - Legend

Hartbelagpiste, versetzte Pistenschwelle
Piste en dur, seuil décalé
Pista in duro, soglia di pista spostata
Paved runway, displaced threshold

Unbefestigte Piste, versetzte Schwelle
Piste sans revêtement, seuil de piste décalé
Pista non pavimentata, soglia di pista spostata
Unpaved runway, displaced threshold

Flugplatzbezugspunkt
Point de réference d'aérodrome
Punto di riferimento di aerodromo
Aerodrome reference point

Gesperrte Piste und Rollweg
Piste et voie de roulage fermées
Pista e via di rullaggio chiuse
Closed runway and taxiway

Wendeplattform
Plate-forme pour tourner
Segmento di svolta
Turnpad

Befestigte Oberfläche vor der Schwelle; nicht geeignet für die normale Benutzung durch Luftfahrzeuge
Aire d'avant-seuil revêtue; ne peut pas être utilisée normalement par les aéronefs
Zona di pre-soglia; pavimentazione non adatta per il normale movimento degli aeromobili
Paved pre-threshold area; not suitable for the normal use by aircraft

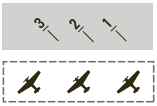
Unbefestigte Roll- und Abstellfläche
Voie de roulage et emplacements de parquage sans revêtement
Via di rullaggio e area di parcheggio non pavimentate
Unpaved taxiway and parking area

Rollhaltelinie
Barres d'arrêt sur voie de roulage
Punti di arresto sulla via di rullagio
Taxi holding position markings

Rollweg und Bodenleitmarkierung
Marquage voies de roulage et guidage au sol
Marcature di rullagio e di guida
Taxiway and guidance marking

Flugplatzkarten - Cartes d'Aérodrome - Carte d'Aerodromo - Aerodrome Charts
Legende - Légende - Legenda - Legend

Standplätze, Hartbelag / unbefestigt
Postions de stationnement,en dur / sans revêtement
Posizioni di parcheggio, in duri / non pavimentate
Parking positions, paved /unpaved



FATO

Zielpunkt für Helikopter
Point cible pour hélicoptères
Punta di mira per elicotteri
Aiming point for helicopters

FATO und TLOF oder FATO, TLOF und Standplatz
FATO et TLOF ou FATO, TLOF et poste de stationnement
FATO e TLOF o FATO, TLOF e piazzale
FATO with TLOF or FATO, TLOF with parking position

TLOF und Standplatz
TLOF et poste de stationnement
TLOF e piazzale
TLOF and parking position

Funkeinrichtung (VDF, LOC, GP)
Equipement radio (VDF, LOC, GP)
Installazioni radio (VDF, LOC, GP)
Radio Facility (VDF, LOC, GP)

Gleitwinkelbefeuerung
Indicateur visuel de pente d'approche
Sistema ottico indicatore dell'anolo di avvicinamento
Visual approach slope indicator system

VASIS

Windrichtungsanzeiger, befeuert und unbefeuert
Indicateur de direction du vent, éclairée et non éclairée
Indicatore di direzione del vent, illuminato e non illuminato
Wind direction indicator, lighted and unlighted

Landerichtungsanzeiger, befeuert und unbefeuert
Indicateur de direction d'atterrissage, éclairée et non éclairée
Indicatore di direzione d'atterraggio, illuminato e non illuminato
Landing direction indicator, lighted and unlighted

Meldestelle der Verkehrsdienste der Flugsicherung
Bureau de piste des services de la navigation aérienne
Ufficio di piste dei servici della circolazione aerea
Air traffic services reporting office

Flugplatzkarten - Cartes d'Aérodrome - Carte d'Aerodromo - Aerodrome Charts
Legende - Légende - Legenda - Legend

Landebereich für Fallschirme
Zone d'atterrissage pour parachutes
Area atterraggio paracadute
Landing area for skydivers

Zaun, befeuert und unbefeuert
Clôture, éclairée et non éclairée
Recinto, illuminato e non illuminato
Fence, lighted and unlighted

Hindernisse - Obstacles - Ostacoli - Obstacles

Hindernis und Hindernisgruppe
Obstacle et groupe d'obstacles
Ostacolo e gruppo di ostacoli
Obstacle and group of obstacles

Hindernis und Hindernisgruppe, befeuert
Obstacle et groupe d'obstacles, éclairés
Ostacolo e gruppo di ostacoli, illuminati
Obstacle and group of obstacles, lighted

Baum, Bäume
Arbre, Arbres
Albero, Alberi
Tree, Trees

Windrichtungsanzeiger, befeuert und unbefeuert
Indicateur de direction du vent, éclairée et non éclairée
Indicatore di direzione del vent, illuminata e non illuminata
Wind direction indicator, lighted and unlighted

Gebäude
Bâtiment
Edificio
Building

Spitzenhöhe in ft AMSL oder in AGL
Cote du sommet indiquée en ft AMSL ou en AGL
Altitudine della cima in ft AMSL o in AGL
Elevation of top in ft AMSL or in AGL

2301
33 AGL

Starkstromleitungen
Lignes de transport de force
Linea corrente forte
Transmission lines

Hindernisfeuer
Feu d'obstacle
Luce di ostacolo
Obstacle light

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1 AERONAUTICAL CHARTS

1.1 Visual Approach Charts - VAC

The **visual approach charts** are printed in the scale of 1:100 000 (A4/A5).

Regional charts with a smaller scale can be used if special VFR approach and/or departure routes have been designated.

1.2 Topographic national maps (LK)

Sections of the national map series are used as the topographic base especially for the VAC and VFR regional charts.

The following elements are taken from the national map series:

- basic map relief features including contours, spot elevations (in metres) and hill-shading with oblique illumination from the NW;
- cultural features:
- hydrographic features
- in wooded areas - green tint - a tree height of **30 to 40 m** must be taken into account and should be **added to the spot elevations**.

The number and year of issue of the national map series, used as the topographic base are given on the lower margin of the VAC charts, near the publication date.

A coincident, oblique cylinder map projection is used for the national map series, as well as a plane rectangular co-ordinates system. For practical purposes, these co-ordinates in m are often given together with the LAT and LONG to indicate a position.

The use of the national maps or sections thereof, which serve as the basis for the AIP charts, is subject to permission being granted by the Federal Office of Topography, CH-3084 Wabern BE before publication.

1.3 AERONAUTICAL CHART ICAO 1:500 000, SWITZERLAND

1.3.1 Elements of the chart

Cultural features

Two-track **railways** are indicated by a single line with perpendicular double dashes at regular intervals. **Pictorial symbols** identify some typical buildings as landmarks.

Relief

Relief portrayal is obtained by hill-shading with north-westerly oblique illumination. **Spot elevations** are given in **feet** in the topographic base. **Significant spot elevations** are shown in the aeronautical overprint in feet with the abbreviation ft.

Area Minimum Altitudes

Maximum altitude figures are shown within each 30 minute latitude and longitude, and are:

a) either the height ASL of the highest prominent landmark plus 328 ft,
or
b) the height ASL of the highest obstruction (if its altitude is higher than a).

The value obtained from *a)* or *b)* together with a safety margin of 164 ft constitutes the **maximum elevation** rounded up to the next 100 **ft**.

Hydrographic features

Representation of drainage is reproduced by using thicker line drawing.

The aeronautical chart of Switzerland is published by the Federal Office of Civil Aviation in **conformity with the standards of ICAO Annex 4, aeronautical charts**.

Aeronautical information for territories outside of Switzerland is published with reservation.

Swiss National Coordinate System

The Swiss Reference System CH1903+ is based on the Bessel ellipsoid with a fundamental point located in Zimmerwald close to Bern:

Ellipsoid:

Bessel 1841

(a = 6377397.155 m, b = 6356078.9628 m, 1/f = 299.15281285)

Ellipsoidal coordinates of the fundamental point (Geostation Zimmerwald):

Longitude: 7° 27' 58.4177" East of Greenwich
Latitude: 46° 52' 42.2703" North of the Equator

The spatial location of the reference system is defined through the geocentrical transformation parameters into the European ETRS89 System (practically identical to WGS-84):

X(ETRS89) = X(CH1903+) + 674.374 m
Y(ETRS89) = Y(CH1903+) + 15.056 m
Z(ETRS89) = Z(CH1903+) + 405.346 m
(No scaling or rotations have been introduced)

1.4 List of Aeronautical Charts

REF	Title	Scale	Series	see
	ENROUTE CHART	1:1 000 000	ENRC ENRC-FRA	https://www.skybriefing.com/enroute-charts-ch
2.1 *	SWITZERLAND	1:500 000	ICAO OACI	https://www.swisstopo.admin.ch/en/digital-aeronautical-chart-icao
*	ZURICH / GENEVA AREA CHART	1:250 000	---	

1.5 Aeronautical charts not in the AIP

REF	Title	Scale	Series	see
3.1*	GLIDER CHART, GLDC SWITZERLAND	1:350 000	---	https://www.swisstopo.admin.ch/en/digital-glider-map

* The charts 2.1, 3.1, can be procured from *map selling agents* of the **Federal Office of Topography, CH-3084 Wabern** *(e.g. aviation-shops, bookshops, stationeries)*.
TEL: +41 (0) 58 469 01 11
Internet: www.swisstopo.admin.ch

1.6 Glider Chart GLDC 1:350,000

The spot elevations against a black background on the GLDC are standard pressure altitudes. In order to ensure the safety of all airspace users, airspace users operating with altimeter settings under regional QNH must make a correction to the spot elevations against the black background on the GLDC, according to the following table and based on the regional QNH*.

* Current values from "QNH Chart" or glider weather forecast.

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

* The current values on the pressure chart or the glider weather forecast are to be used.

1.7 **AVIATION OBSTACLES**

3.2	As a swisstopo digital application in conjunction with the FOCA and to be found in:	see
	- WEB-GIS Obstacle Map WeGOM (all scales)	https://www.bazl.admin.ch/en/air-navigation-obstacles
	swisstopo-App	https://www.swisstopo.admin.ch/en/swisstopo-application

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Correction	Berichtigung	Correction	Correzione	MAP

LUFTFAHRTKARTE / CARTE AÉRONAUTIQUE / AERONAUTICAL CHART ICAO / OACI 1: 500’000 **2026 MAR 19** (55. Edition)
NIL

ZURICH AREA CHART 1: 250’000 / GENEVA AREA CHART 1: 250’000 **2026 MAR 19** (17. Edition)
NIL

SEGELFLUGKARTE / CARTE VOL À VOILE / CARTA VOLO A VELA / GLIDER CHART 1: 350’000 **2026 MAR 19** (35. Edition)
NIL

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