

Federal Department of the Environment, Transport, Energy and Communications DETEC Federal Office of Civil Aviation FOCA Unmanned Aircraft Systems (UAS)

Swiss Confederation

# **FOCA GM**

**G**uidance **M**aterial

# **Local Conditions for UAS Operations in Switzerland**

Guidance to FOCA-UAS-APP-CBO – Application Form for Cross-Border Operations

Scope	AMC and GM to Article 13 of Implementing Regulation (EU) 2019/947
Applies to	UAS cross-border operations in the 'Specific' category in Switzerland
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# Log of Revision (LoR)

Date	Issue	Revision	Highlight of Revision	Prepared by	Released by
22.12.2025	1	1	<ul><li>Population density threshold updates</li><li>Document reference update</li></ul>	UAS/Ops	UAS/Lead
22.07.2025	1	0	First Issue – UAS	UAS/Ops	UAS/Lead

#### 0 Disclaimer and purpose

The following material is provided for informational purposes only and does not constitute legal advice. It is the responsibility of UAS operator and remote pilot to comply with all applicable laws and regulations related to UAS operations and privacy, data protection, liability, insurance, security and environmental protection in general.

This document compiles the local conditions in Switzerland for UAS operations in the 'Specific' category i.a.w. Implementing Regulation (EU) 2019/947.

For further guidance, please refer to the following:

- FOCA <u>SORA</u>, <u>PDRA</u> and <u>CBO</u> webpages and available guidance documents;
- the DETEC Ordinance on Special Category Aircraft (OSCA; SR 748.941).

# 1 Minimum Age for Remote Pilots

In Switzerland, there are minimum ages for operating UAS:

- 12 in the 'Open' category;
- 14 in the 'Specific' category;
- children under the age of 12 may pilot a drone provided they are supervised by a person over the age of 16 who has adequate piloting skills (training, examination).

#### 2 Airspace Structure in Switzerland

Switzerland consists of a single Flight Information Region (FIR) which is divided into the areas of responsibility of Zurich and Geneva. Within this FIR, the airspace is divided into **four ICAO classes: C, D and E (controlled) and G (uncontrolled)**. Airspace G covers the terrain in a height band from the ground to 600 m (2'000 ft) above ground over the entire territory of Switzerland – except for control zones (CTR), which extend to the ground, and TMAs with low-set lower limits.

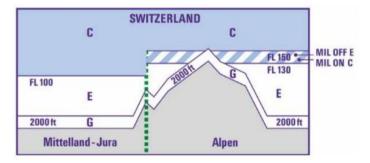


Figure 1 – Schematic overview of the airspace structure in Switzerland

To find the airspace class of a specific location, different aeronautical charts can be used. The most useful being the official ICAO chart which can be found here: <u>Aeronautical Chart ICAO</u>. The symbol definitions of the ICAO chart can be found here: <u>Symbology</u>.

#### 3 UAS Geographical Zones

In Switzerland, there are areas where flying drones is prohibited or only possible to a limited extent.

#### 3.1 National and cantonal restrictions

Our interactive drone map shows the national and cantonal area restrictions. These include:

- 5 km radius around civil or military airfields;
- control zones (CTR);
- civil airfield perimeter according to the sectoral plan for aviation infrastructure or military airfield perimeter according to the sectoral plan for the military;
- penal institutions;
- certain protected areas;
- the vicinity of nuclear power plants;
- over military zones;
- certain energy and gas supply infrastructure.

If you are unable to comply with the additional flight restrictions, you must contact the responsible authority to apply for authorization. The contact details of the competent authority and the conditions for flying in a given geographical area are specified directly on the map ('Object Information').

#### 3.2 NOTAM / DABS

Most NOTAMs concerning navigation warnings and airspace changes (W series) are shown graphically (red zone) in the Daily Airspace Bulletin Switzerland (<u>DABS</u>). The map and the NOTAM text section are updated daily at 4pm for the following day.

Please refer to our <u>Guidelines for drone operators in the open category-DABS chart</u>.

# 3.3 Beware of hot spots!

In order to prevent an 'airprox' or even a collision with another airspace user, drone pilots need to take particular care and precautions when operating in the vicinity of:

- hospitals and other health care facilities with helipads: Map;
- mountain landing sites: <u>Info</u> (DE) & <u>Map</u>;
- hazard zones of Swiss Armed Forces' shooting ranges: Map;
- high activity areas for gliding, paragliding and hang gliding: Glider Chart & Flying areas SHV.

See also the publications of Stay Safe (FOCA Safety Promotion) on drones.

#### 3.4 Coordination with Skyguide

Skyguide, the Air Navigation Service Provider (ANSP) in Switzerland, is responsible for providing clearances for special flight operations in the airspace in which Air Traffic Control (ATC) approval is required, including airspace around airports and regional aerodromes.

UAS flights in the vicinity of aerodromes where Skyguide provides Air Traffic Control service are subject to Skyguide's approval, which must be requested through Skyguide's <u>SFO tool</u>. For further information, please consult Skyguide's <u>Special flights</u> webpage.

The table and graph below summarize the conditions under which Skyguide approval is required.

Conditions under which Skyguide approval is required						
Operational Volume	UAS MTOM	Height of operational volume				
Within the airport perimeter, as defined in the <u>Sectoral Aviation</u> <u>Infrastructure Plan (SAIP)</u>	Any	Any				
Within the radius of 5 km around the runway	> 250 g	Any				
Outside the radius of 5 km around the runway, but still	> 250 g	> 120 m AGL				
within the lateral limits of the CTR (Control Zone)	_33 9	> 150 m AGL ( <u>model aircraft</u> )				

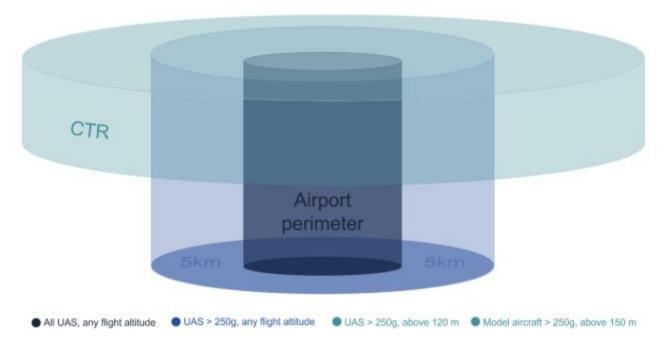


Figure 2 – Schematic overview when an authorization from Skyguide is required (source: Special flights)

#### 4 Population Information

#### 4.1 Urban vs. Rural Areas

Normal, manned VFR flights must maintain a minimum altitude of 1'000 ft over urban areas and 500 ft over rural areas (i.a.w. Regulation (EU) 923/2012, SERA.5005(f)). Special flights like the Swiss Air Force or Helicopter Emergency Medical Service (HEMS) Operations (e.g., Rega) may be encountered below these minima. However, the terms urban and rural are not clearly defined regarding these applicable minimum altitudes. FOCA considers the use of the ICAO chart as adequate to check if the surface is an urban (yellow areas) or rural area:

Urban is defined as the areas depicted in yellow, part of "built-up areas":



Figure 3 - Extract of the Aeronautical Chart ICAO

In urban areas, an increased helicopter traffic at low level is expected. Examples of urban areas include the agglomeration surface of Zürich, Basel, Geneva, Bern, Lausanne, Luzern, etc. Highways (also depicted in light yellow on ICAO chart) are not considered as urban areas.

• Rural is defined as all non-urban areas and not within an airport environment.

#### 4.2 Population Density

The primary tool used in Switzerland to assess population density is <a href="https://map.geo.admin.ch">https://map.geo.admin.ch</a>. Two layers are available to select: "SORA Ground Risk 100" (100m × 100m resolution) and "SORA Ground Risk 200" (200m × 200m resolution).

Note: The use of local or cantonal density maps (e.g. such as <u>geo.vd.ch</u> or <u>maps.zh.ch</u>) is also possible, as long as they are provided by an authoritative source.

The table below provides additional guidance for the equivalence of qualitative descriptors used in SORA version 2.0 and quantitative descriptors used in SORA version 2.5.

'SORA Ground Risk' Chart	Quantative category	Qualitative descriptor	
SORA Ground Risk Chart	(SORA 2.5)	(SORA 2.0)	
5-50 people per km2	Blue (light blue, dark blue)	Sparsely populated	
50-500 people per km2	[5-500 people per km <sup>2</sup> ]		
500-5000 people per km2 5000-50000 people per km2	Red (light red, dark red)	Populated	
and accepted both the	[ <b>501-50'000</b> people per km <sup>2</sup> ]	1 opulated	

#### 5 Insurance

Anyone operating a drone weighing more than 250 grams must take out civil liability insurance with a guaranteed sum of at least CHF 1 million. The FOCA recommends having insurance for lighter drones.

## 6 Accidents, Incidents and Emergency Contact Details

Drone incidents and accidents resulting in injuries or involving manned aircraft have to be reported. Voluntary reporting of every incident or accident is nonetheless encouraged.

Two distinct reporting procedures apply depending on the case:

- Firstly, drone operators/pilots are required to report accidents and serious incidents without delay to the Aviation division of the Swiss Transportation Safety Investigation Board (STSB) via the Rega alarm centre (tel. 1414, +41 333 333 333 from abroad).
- Secondly, drone operators/pilots are required to report all safety-related incidents within 72 hours to the Federal Office of Civil Aviation (FOCA) or the official reporting system (www.aviationreporting.eu).

Incidents, serious incidents and accidents involving unmanned aircraft are exempted from this obligation to report, provided that no serious or fatal injury to persons is recorded and no manned aircraft are involved.

In other words, UAS operators/pilots must report accidents and serious incidents via the REGA alarm centre (Tel. 1414 from outside Switzerland +41 333 333 333) immediately to the aviation department of the Swiss Transportation Safety Board (STSB) and report all safety-related incidents with serious or fatal injuries to persons or involving manned aircrafts within 72 hours to the FOCA through <a href="https://www.aviationreporting.eu">www.aviationreporting.eu</a>.

# 7 Use of Transponders

The use of transponders is only possible in certain cases. Please refer to the following FOCA document: Directive on the use of transponders and ADS-B for drones and model aircraft.

#### 8 Use of Radio Frequencies

A drone, insofar as it contains a radio transmitter and/or receiver, constitutes radio equipment. As such it is subject to the Telecommunications Act. Questions relating to frequencies fall within the Federal Office of Communications' area of responsibility. Further information: <a href="https://www.bakom.admin.ch">www.bakom.admin.ch</a>.