

# Search & Rescue SAR Switzerland



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# Organization SAR / National

## ARCC > Aviation Rescue Coordination Center

Contracting States shall, individually or in cooperation with other States, arrange for the establishment and prompt provision of search and rescue services within their territories to ensure that assistance is rendered to persons in distress. Such services shall be provided on a 24-hour basis. *ICAO Annex 12 / 2.1*

Since 1.1.2021 operated by  
Swiss Air Force



Daniel Zolliker, der Leiter des Rescue Coordination Center, überwacht die Alarmzentrale in Dübendorf an mehreren Bildschirmen. © VBS/DDPS, Sina Gunter







# Organization SAR / National

## ARCC Duties

Initiating and Coordination of the Search & Rescue for:

- Aircraft which Emergency Beacon (**ELT**) has been triggered
- Aircraft which are overdue (**INCERFA**)
- Aircraft which neither carry an **ELT** nor filed an **ATC Flightplan** but are missed (e.g. Glider)
- Personal Emergency Beacon (**PLB**) (*no obligation by law to search*)







# Contact ARCC

AIP SWITZERLAND

GEN 3.6 - 1

04 JAN 2018

## GEN 3.6 SEARCH AND RESCUE

### 1. Responsible service

The SAR service is under the responsibility of FOCA. The execution of SAR is delegated to the KAPO ZH (RCC) and the Swiss Air Force (search FLT's).

It can call on the following resources for assistance, as needed:

- Air force units;
- the Swiss Air Ambulance (REGA);
- Civil aviation companies;
- Canton police forces;
- Swiss alpine club rescue teams;

## SEARCH AND RESCUE CO-ORDINATION CENTRE (RCC) SAR Centre Zurich

Postal address	TEL H24	FAX	Telex AFTN	Notes
Schweizer Luftwaffe / Swiss Air Force RCC / Op Zen LW Flugplatz Dübendorf / OZD CH-8600 Dübendorf Switzerland	+41 (0) 58 484 10 00	+41 (0) 58 484 20 05	LSARYCYX	Email: <a href="mailto:rcc.lw@vtg.admin.ch">rcc.lw@vtg.admin.ch</a>

**Search And Rescue area:** Switzerland and Liechtenstein

**Supervising authority:** Federal Department of Environment, Transport, Energy and Communications (DETEC)

**Name and location of Rescue SubCentre:** NIL





# Flight plan and SAR

## Flight Plans SERA.4001 Submission of a flight plan

b) A flight plan **shall** be submitted prior to operating:

(3) **any flight within or into areas**, or along routes **designated** by the competent authority, to **facilitate** the **provision of flight information**, alerting and search and **rescue** services;





# Flight plan and SAR

## Flight Plans SERA.4001 Submission of a flight plan

[...] For other VFR flights, **significant changes** to a flight plan **shall be reported as soon as practicable to the appropriate air traffic services unit.**

**EET** = „estimated elapsed (flight) time“ for VFR-Flights:

the **expected required time between the takeoff and the arrival overhead the destination aerodrome;**







# Flight plan and SAR

## Flight Plans SERA.4015 Changes to a flight plan

- a) [...] For other VFR flights, **significant changes** to a flight plan shall be reported as soon as practicable to the appropriate air traffic services unit.
- b) Information submitted **prior** to departure regarding **fuel endurance** or **total number of persons carried on board**, if incorrect at time of departure, **constitutes a significant change** to the flight plan and as such **shall be reported**.





# Flight plan and SAR

## Flight Plans

### SERA.4020 Closing a flight plan

- a) An arrival report shall be **made in person**, by radiotelephony, via data link or by other means as prescribed by the competent authority **at the earliest possible moment after landing**, to the appropriate air traffic services unit at the arrival aerodrome, by any flight for which a flight plan has been submitted covering the entire flight or the remaining portion of a flight to the destination aerodrome.

-> **Close my flightplan**

-> **Diversion!!** The original FPL remains open – No FPL to Alternates

**Lack of DEP triggers the Flight plans to become active at EOBT**





# Flight plan and SAR

## Flight Plans SERA.4020 Closing a flight plan

- (e) Arrival reports made by aircraft **shall** contain the following elements of information:
- (1) aircraft identification;
  - (2) departure aerodrome or operating site;
  - (3) destination aerodrome or operating site (only in the case of a **diversionary landing**); \*
  - (4) arrival aerodrome or operating site;
  - (5) time of arrival.

***\*\* Diverting on Flight Plan from LSxx ; please close my flight plan after landing\*\****







# Flight plan and SAR

## Section 10 SERA.10001 Alerting Service

- b) **Unless otherwise** prescribed by the competent authority, **aircraft equipped** with suitable **two-way radio-communications shall** report during the **period 20 to 40 minutes following** the time of the **last contact, whatever** the **purpose** of **such contact**, merely to indicate that the flight is progressing according to plan, such report to **comprise identification** of the **aircraft** and the **words 'Operations normal'**.
- c) The **'Operations normal'** message shall be transmitted **air-ground to** an **appropriate ATS unit**.





# ATS and SAR **INCERFA**

## Uncertainty Phase (**INCERFA**)

### ▾ Alarmstufe 1 - INCERFA (Ungewissheitsstufe)

Sobald die letzte Meldung oder die Landung eines Flugzeuges länger als eine halbe Stunde überfällig ist, wird **Alarmstufe 1 - INCERFA (Ungewissheitsstufe)** - eingeleitet. Aufgrund des Flugplans wird versucht, Informationen über den Verbleib des Luftfahrzeuges zu erhalten. In mehr als 90% der Fälle wird das abgängige Flugzeug schon aufgrund von telefonischen Nachforschungen gefunden.

### ▸ Alarmstufe 2 - ALERFA (Bereitschaftsstufe)

### ▸ Alarmstufe 3 - DETRESFA (Notstufe)

**EOBT / Takeoff & EET & 30 Min = Alarm**

EET can be **extended** by informing ATC (ACC or FIC)





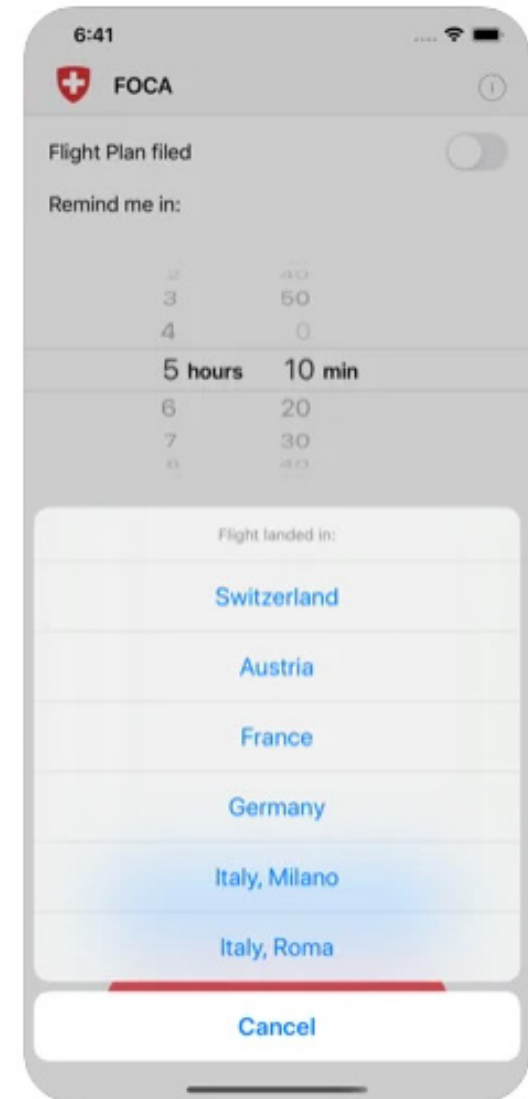
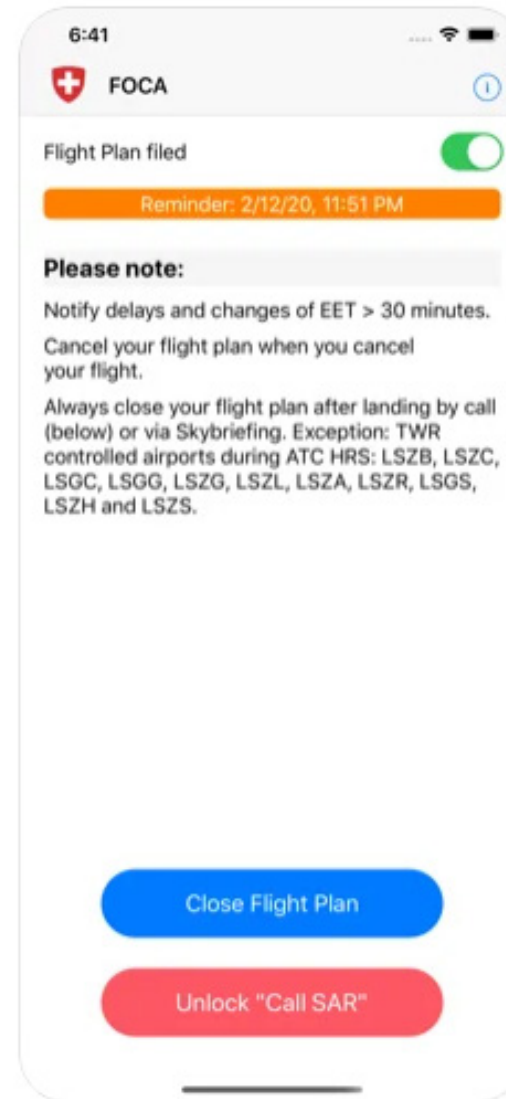
# «Swiss SAR Alerts» App



Android



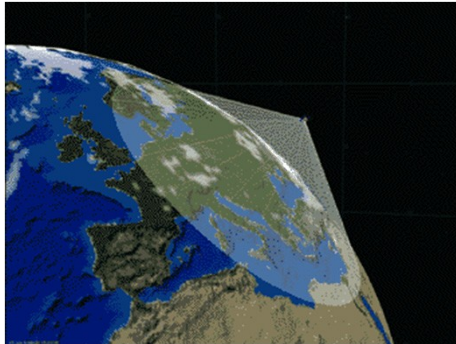
iOS







# ELT Handling



- **No Tests** with 406 MHz ELT's;  
GEOSAR takes signals immediately
- **Monitoring 121,5 MHz**
- **Report false alerts to**  
ARCC Zürich Tel. 058 – 484 10 00



A military helicopter, likely a Sikorsky UH-60 Black Hawk, is shown from a high-angle perspective, flying over a dense forest. The helicopter is equipped with Synthetic Aperture Radar (SAR) equipment, including a large dome-shaped antenna on top and two large circular sensors on the front. The rotor blades are blurred, indicating motion. The background is a lush green forest.

SAR

Thank you very much for  
your interest