



Simplified standard procedure for the operation of unmanned aircraft or model aircraft over private groups of people in VLOS

Reference number: FOCA / 311.340-00022/00025

In deviation from the SORA approval procedure and based on Art. 18 para. 1 lit b of the Ordinance on Special Category Aircraft (OSCA)¹, the following simplified standard procedure for operations over private groups of people in visual line of sight (VLOS) is applicable for the operation of unmanned aircraft or model aircraft. An exception to the restrictions in accordance with Art. 17 para. 2 lit. c (operation within a radius of 100 metres from groups of people) of the OSCA¹ is granted.

This standard procedure is used when the group of people is under the control of the drone pilot (the group has been informed of the drone deployment and can be informed of the drone's movements at any time).

The following conditions apply:

1. Applicant

The applicant should enter his contact details here to facilitate communication in the event of any questions. The applicant is the organiser of the drone operation

2. Details of planned operation

This information should provide as accurate a picture as possible of the planned operation.

1) **Exact location of operation (address/coordinates)**

The exact location information is required in order to be able to check the location of the operation. The address, the coordinates or both sets of information can be entered here.

2) **Date and time of operation**

Please enter the time and date of the operation. This information is required if the permit is to be issued.

3) **Nature of group of people**

Please state whether the group of people is attending a public or private event.

Please provide a brief description of the event at which the drone is to be operated.

4) **Purpose of operation**

Please state the aim / end product of the drone operation.



5) **Approximate number of persons expected**

Please state how many people are expected to attend the event at which the drone is to be operated. An approximate figure is sufficient if the exact number of persons is not known.

6) **Planned duration, number of flights**

Please state the duration of the operation and how many operations of this type are to be performed on the specified date.

7) **Name and telephone number of pilot**

The contact details of the pilot are required to facilitate direct communication with the pilot in the event of any questions and to avoid communication via the applicant.

8) **How is continuous communication between the pilot and the group of people ensured?**

Please enter a description of the communication between the pilot/crew and the groups of people. Please also describe the communication between the pilot/crew and the organiser/applicant. Consider communication during normal operation and in emergency situations.

3. Details of model

1) **Manufacturer / Model**

Please enter the manufacturer and model of the drone.

2) **Name of operator**

Please enter the name of the operator of the drone.

3) **Address of operator**

Please enter the address of the operator of the drone.

4) **Take-off weight**

Please enter the maximum take-off weight of the drone during operation planned for this permit application. The maximum permitted take-off weight is 2.4 kg.

4. Specific details of planned operation

1) **Local civil and military aerodromes/heliports and their approach routes are known**

The location of the operation must correspond to the [drone map of Switzerland](#) and the restricted zones shown therein.

2) **Drone operation will take place outside the 5 km perimeter of a civil or military aerodrome/heliport**

If the operation takes place in a zone with restrictions or a prohibited zone according to the [drone map of Switzerland](#), a separate permit must be obtained from the [competent authority](#) before submission of this application for a permit. The competent authority may impose further conditions.

The FOCA cannot issue approval without a corresponding permit from the responsible aerodrome.

3) **I am aware that manned aircraft have priority at all times and that I am responsible for ensuring safe separation**

The “see and avoid” principle also applies to unmanned aircraft. Since an aircraft pilot stands little chance of recognizing a small drone early enough, it is your responsibility to take timely evasive action and always to maintain a proper distance from other aircraft.

4) **I am aware that operation in the vicinity of deployed emergency services is not permitted**

Flying a drone over the scene of an accident to take aerial pictures may impede a rescue helicopter from approaching the site. In addition, emergency services feel that their work is disturbed by drones.

Operation in the vicinity of deployed emergency services is not permitted.

5) **The drone is operated and maintained according to the manufacturer's specifications**

Before and during operation, the drone must be operated and maintained as defined

and described by the drone manufacturer in the relevant manuals.

This includes for example a pre-flight check, which should include the following:

Check the command and control links, the battery voltage and the propellers.

- 6) **I understand the weather and operating conditions defined by the manufacturer as well as the corresponding limits and will comply with them throughout the operation**

The limits defined by the manufacturer (weather and operating conditions, etc.) must be observed at all times and must not be exceeded at any point during the operation.

- 7) **I am aware that I may only fly in saturated air (visible humidity, fog) at temperatures above 5°C**

Low temperatures can strongly influence the flight characteristics of the drone. A combination of low temperatures and rapidly rotating propellers can cause ice to form above 0°C. Ice can render a drone uncontrollable.

- 8) **I understand the cantonal and municipal regulations and will comply with them throughout the operation**

Each canton has the right to issue its own regulations for drones. These can be stricter than those of the federal government and must be observed.

- 9) **I understand the requirements of data protection and protection of personality and will comply with them throughout the operation**

The operation of drones is governed by the [Data Protection Act](#) and the right to privacy, which is enshrined in Swiss civil law. You should therefore never fly your drone low over private property or public sites where people gather.

5. General operating conditions

- 1) **The persons being flown over and the aircraft itself are under the control of the pilot and his crew**

A permit can only be issued if both the persons being flown over and the aircraft itself are under the control of the pilot and his crew.

In terms of persons, this means:

- a) The overflowed group of people must be under the control of the operator (the crowd has been informed of the drone deployment and can be informed of the drone's movements at any time).
- b) Spectators, participants or other persons at mass public events are not considered to be "under the control of the operator".
- c) Persons under the control of the operator must:
 - i. voluntarily decide to take part in the event and agree to be overflown by a drone.
 - ii. understand the risk they face from the operation of the drone.

- 2) **The pilot has direct visual contact with the aircraft at all times and can ensure control over it at all times**

The pilot must maintain direct eye contact with the aircraft at all times and must also be able to maintain control at all times.

- 3) **I am aware that for this standard procedure the drone may not be flown higher than 30m above ground level**

The drone must not exceed a height of 30 metres above ground level during operation.

4) **The drone will be operated with automatic flight support (attitude and position stabilisation)**

Operation in manual mode (direct manual control without the assistance of the flight computer) is not permitted. In this standard procedure, no drone operations in manual mode will be approved.

6. Aircraft requirements

1) **Is the maximum size of the aircraft including the propellers 1 m or smaller?**

The diameter including the propellers of the aircraft must not exceed 1 m

2) **From what material are the propellers made?**

The propellers should be made from plastic. This can be determined by testing whether the propellers are flexible. The propellers may only be made from metal or fibre-reinforced plastic if they are sufficiently protected from external contact. This protection must be photographed and attached to the application.

3) **The drone has a return to home function**

The aircraft must not pose any danger to the people it is flying over if the control link is lost. A return to home function is therefore required.

7. Requirements for pilots and crew

1) **A logbook (data recording) shall be kept. The individual flights, including take-off and landing times, take-off and landing locations (if applicable), the pilot in command and any unusual technical or operational incidents shall be recorded.**

Such a logbook ensures traceability for the applicant. OSO 8/11/14 and 21 require that operational processes are in place to support pre- and post-flight inspections as well as to allow occurrence reporting. This must either be in electronic form or, if the drone does not have this facility, in manual form (e.g. on a sheet of paper). A logbook must be kept in one of these two forms.

8. Emergency procedures

Please provide a description of the emergency procedures. Please describe these in detail and in whole sentences.

1) **What are the emergency procedures if persons are injured?**

What is the reaction? Who is to be informed? How is the information to be communicated? Who is to fill out the occurrence report by means of aviation reporting?

2) **What are the emergency procedures in the event of a “fly-away”?**

What is the reaction? Who is to be informed? How is the information to be communicated? Who is to fill out the occurrence report by means of aviation reporting?

3) **What are the emergency procedures in the event of loss of the control link?**

What is the reaction? Most drones have a return to home function. Please describe this function. If there is no such function, an adequate replacement must be described.

4) **What are the emergency procedures for incoming air traffic?**

What is the reaction? Who fills out the occurrence report by means of aviation reporting in the event of a collision or near-collision?

9. Detailed description of emergency recovery system

The explanation can be found on the application form.

10. Information on limits

The limits specified in this section must be observed.

- **Flying in icing conditions is not permitted (outside air temperature < 5°C in visible humidity).**
(See Section 4: Specific details of planned operation, Point 7)
- **Maximum wind: 20 km/h; max. gusts: 30 km/h.**
Always consult the current weather conditions before the flight.

11. Third-party liability insurance

Flights may only be operated if the liability claims of third parties on the ground are secured by the operator with a minimum guaranteed cover of CHF 1 million by taking out a third-party liability insurance policy in accordance with Art. 20 of the Ordinance on Special Category Aircraft (OSCA, SR 748.941).