SAFETY RULES FOR MODEL FLYING IN SWEDEN

Jointly established by the Swedish Model Aviation Association (SMFF) and the Swedish RC Aviation Association (RCFF) on 10/12 2020. Version 1.4.2
The rules apply from 1 January 2021.

Generally

- These safety rules apply to model pilots affiliated with the RCFF or SMFF, either directly or indirectly through membership of a model flying club. Even visiting model pilots from another country can conduct model flights according to these rules, provided that there is membership in a recognized model flying organization in the home country, that the visiting model pilot holds liability insurance for model flying activities and is registered as an operator in accordance with current legislation (EU 2019/947).

- The safety rules apply to model flight operations with radio-controlled aircraft (hereinafter referred to as *model)* which is conducted at model airfields approved by the Swedish Transport Agency. If local field regulations exist, these must also be followed. However, the security rules are always superior to the local field rules.

- For flights with a model on site that has not been approved by the Swedish Transport Agency, the flight may take place in accordance with the Swedish Transport Agency's regulations for unmanned aircraft. (reference:

- https://www.transportstyrelsen.se/sv/luftfart/Luftfartyg-och-luftvardighet/dronare/

- For free-flying models, these safety rules apply with the exception of the points relating to the pilot's maneuvering of the model by radio control and the design of the radio equipment.

Liability insurance

- Model pilots affiliated with SMFF or RCFF as well as students undergoing training or trial flying are covered by the respective organization's liability insurance for model flights if the flight takes place from model airfields approved by the Swedish Transport Agency in accordance with these safety rules and local safety rules if any. The insurance also applies to model flying from places other than approved model airfields if the flight takes place in accordance with these safety rules and the Swedish Transport Agency's regulations for unmanned aircraft according to the above reference.

Operator registration and marking of the model

- Members 18 years of age or older must register as an operator with the Swedish Transport Agency to obtain a personal operator ID. This must be clearly visible on the model.
- For members younger than 18, a club can assume operator responsibility for them members by registering the club as an operator with the Swedish Transport Agency. The club's operator ID is shared with members who are younger than 18 and their models must then be marked with the club's operator ID and the individual member's name and phone number.

- For those cases where the club does not have the opportunity to register as an operator, there is an opportunity for a member older than 18 to act as a sponsor for a member younger than 18. Whoever takes on sponsorship allows their operator ID to also be used on the mentee's models, which must then also be marked with the pilot's name and phone number.

The purpose of the marking is to enable tracking in the event of activity contrary to the Swedish Transport Agency's approval in accordance with Article 16.

Personal responsibility

- It is each person's personal responsibility to obtain knowledge of applicable regulations, including local safety rules and restrictions, before model flying takes place. It is also everyone's personal responsibility that the model aircraft equipment is in such a condition and is used in such a way that the risk of damage to people, animals and property is minimized as far as is reasonably possible.

- All model flying must be conducted with the observance of common sense regarding safety, taking into account, among other things, the type, weight and speed of the model. If there is any doubt about flight safety, refrain from flying.

- For members under the age of 18, it is the club's, or the sponsor's, operator's responsibility to provide adequate education and training until the member can be allowed to fly independently and that the club, or the sponsor, thereafter provide mentoring until the time the member can obtain their own operator's ID.

- Incidents that caused damage or risk of damage to third parties must be reported in the Swedish Transport Agency's system for "drone" incidents and documented locally.

Model and equipment

- Model flying may normally be conducted with models weighing a maximum of 25 kg.

- At model airfields deemed suitable and approved for flight in the application to TS with models weighing more than 25 kg, flying may also take place with heavier models.

  - Models heavier than 25 kg must have duplicated primary systems. This includes, among other things, dual receivers, dual battery systems, at least two servos per primary rudder, etc

  - Models heavier than 25 kg must have been reviewed and technically reviewed by another experienced model builder. This should be done before test flight and after major repairs or modifications. The inspection must be documented in the simplest way and the documentation taken to the model airfield when the model is flown.

- Flying must take place with radio equipment that is suitable for the purpose and on frequency bands permitted by the Norwegian Post and Telecommunications Agency for model flights, i.a. the 35 MHz and 2.4 GHz bands.
The output power of radio transmitters may not exceed that permitted by the Swedish Post and Telecommunications Board.

- Models weighing more than 7 kg must be equipped with a "fail-safe" which, in the event of loss of radio contact, where applicable, stops or pulls the engine to idle and sets

rudder surfaces so that the model is brought to land. Even for lighter models, the use of "fail-safe" is recommended.

- Range tests should, if possible, be carried out before the first flight of the day.

- Before each flight, the model must be checked so that it is flight safe, which includes, among other things means that the model does not show damage of importance to flight safety and that no details can come loose during flight. Check that the batteries of the radio equipment have sufficient charge for flight and that the correct model memory is selected in the transmitter.

- Free-flying models weighing more than 250 g must be equipped with technology that makes it possible to abort the flight at any time manually, or automatically after a maximum of 180 seconds. In sanctioned competitions, other maximum times may occur.

- For all operations with turbine-driven models, a fire extinguisher with at least classification 34B, for example a 2 kg carbon dioxide extinguisher, must be available.

Flight

- Flying may only take place within the flight area specified in the Swedish Transport Agency's permit for the model airfield.

- Flight must take place within line of sight, which means that the distance between pilot and model must never be greater than the pilot can safely control and maneuver the model without other visual aids than glasses/contact lenses.

- In cases where flying takes place with autonomous control systems, these must be designed so that the pilot can regain manual control of the model at any time.

- When flying in the dark, the model must be equipped with lighting arranged in such a way that the model's position and direction of travel can be clearly perceived.

- Maximum flight height is 120 meters above ground/water unless permission from the Swedish Transport Agency or local air traffic control allows a higher flight height. For model airfields located within control and flight information zones, other altitude restrictions may apply.

- Model flights must give way to all manned aircraft that may enter the flight area.

- If the flight, with permission from the Swedish Transport Agency or local air traffic control, takes place at altitude above 120 m, it is recommended that an observer monitoring the surrounding airspace assists the pilot. The flight must be planned so that the flight altitude can be changed without delay so that a safe altitude separation is achieved to manned aircraft that may enter the flight area.

- FPV flying is permitted within the airspace. In cases where the pilot cannot directly observe the model, for example due to the use of video glasses/goggles, an observer who can constantly see the model and monitor the surrounding airspace must be present. If necessary, the observer must draw the pilot's attention to relevant environmental factors.

- Do not fly over or near buildings, streets, roads, pedestrian and cycle paths. Ensure that all flying takes place so that the risk of injury to people, animals and property is minimized as far as is reasonably possible.

- If several models are flown simultaneously on the same flight line, the pilots must position themselves so that they can communicate with each other. Several flight lines with separate flight areas can be established. Take-off and landing must always be announced by the pilot shouting "I'm taking off" or "I'm landing".

- Landing models have priority over other model flights. Landing glider models take precedence over powered models.

- Hovering with models must not take place near spectators or other pilots.

- Flying over pit area/parking/spectators is prohibited.

- When flying, it is forbidden to enter an active runway unless permission is granted/obtained from the flying pilots.

- On the ground, models must be taxied in such a way that the risk of damage to the surroundings is minimized as far as is reasonably possible.

Depot area

- Taxiing is prohibited within the depot area.
- For all engine runs in the depot, the model must be anchored.

Miscellaneous

- Never fly under the influence of alcohol, drugs or medications that can adversely affect attention and reaction ability.

- These rules are part of the basis for the approval of RCFF and SMFF and constituent local clubs according to Article 16.

- For models weighing less than 250 grams and not equipped with a camera, no operator ID or drone card is required. Maximum flight height is 120 meters unless special restrictions apply at the location in question. The model must not fly faster than 19 m/s.

References

SMFF

https://www.modellflygforbund.se

RCFF
https://www.rcflyg.se

RCFF/SMFF Database with all approved model airfields
https://www.faltregister.se

RCFF

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