

## MHSA GENERAL SAFETY RULES

**Note:** - These rules are model helicopter specific and are to be used as a supplement to the SAMAA general safety rules (Parts 1 and 2) but do not entitle the pilot under any circumstances to ignore the SAMAA general safety rules. All safety and model specific rules in FAI document *SC 4 – Aeromodelling Volume F3 Radio Control Model Helicopters* apply as well.

1. A safety officer will be appointed at all helicopter flying events.
2. Only pilots flying, and their instructor or observer may be in the flight area.
3. The use of an observer is strongly recommended, especially if two or more helicopters are flying simultaneously.
4. Pilots shall keep a safe distance between their helicopters and all people at the flying site, including themselves. These distances shall be a minimum of 5 meters from a helicopter that is running on the ground or hovering, and a minimum of 10 meters from a flying helicopter.
5. Never under any circumstances fly the helicopter between yourself and the spectators, other pilots and the pit area.
6. Pilots shall enquire about and adhere to all rules at the flying site and keep their model helicopters within the established flight boundaries at the flying site. There shall be a minimum distance of 30m between the established flight line and any spectators.
7. Always ensure that the control surfaces are working in the correct direction before starting your helicopter especially after any work has been carried out or radio adjustments have been made. E.g.:  
- Cyclic, rudder, throttle and gyro.
8. Failsafe function is set to reduce the throttle to the low rpm position or to cut the engine completely. The other controls are recommended to be set to the 'hold' setting.
9. Always ensure that the throttle is set to idle and any flight mode switches are set to NORMAL / HOVER mode before attempting to start an IC motor.
10. When starting an IC motor helicopter always ensure that the rotor head is held firmly. Never release this until you are ready to take off from the appropriate area.
11. Ensure that the blades are securely tightened within the grips.
12. Ensure that the batteries have sufficient charge before making the flight. Note: - It is advisable to fit a monitor on the receiver power source.
13. Regularly range test the model and look for any servo glitching and if unsure then do not fly. All new and rebuilt models must undergo range checks prior to flight. When an 'engine running' range test is performed, ensure the model is held firmly by the rotor head and that you helper can kill the engine via an alternative method. i.e.: disconnecting the fuel line or turning the ignition switch off etc.
14. Never spin the blades under power whilst in the pit area.
15. Never leave a helicopter running unsupervised under any circumstances.
16. All models shall be airworthy. The pilot is responsible for the pre-flight inspection before each session.
17. New and rebuilt helicopters must undergo a thorough inspection by the club safety officer or in his absence the most experienced person available. This inspection should preferably not be done by the builder.
18. Regularly check that all servos are not under excess load. This can be done by removing the link from the servo and attempting to move the linkage by hand. This will indicate if there are any stiff spots in the system. While the link is removed from the servo, also check that the servo does not move more than the maximum limits of the control. Note: - This should be carried out in the workshop.
19. Regularly check for worn or damaged control linkages and chipped or damaged rotor and tail blades.
20. Large helicopters (>1,8m rotor diameter) must always be flown with the help of an observer.
21. Large helicopters and Turbine powered helicopters must be fitted with a radio-controlled method to kill the motor, other than the throttle, i.e.: an electronic kill switch or a fuel cut-off.
22. Large helicopters should be inspected, and test flown by the most experienced and competent pilot available. Preferably a pilot with Helicopter Instructors Rating.
23. Turbine powered helicopters must have a CO2 fire extinguisher on hand always.
24. Turbine powered helicopters must always be started well away from spectators and other pilots and in an area that has the minimum fire risk. I.e. away from the refuelling stations and clear of long grass etc.

25. Turbine powered helicopter pilots must, in addition to the SAMAA and MHSA safety rules, adhere to all relevant safety rules of the South African Model Jet Association (SAMJA). This is to ensure the safe integration of a turbine motor into a helicopter.
26. When flying your helicopter with fixed wing aircraft present it is advisable to comply with the following general guidelines.
  - 26.1 At many fields, helicopters are only permitted to take off and land from the designated helicopter area(s).
  - 26.2 Helicopters are not allowed to fly in a manner that interferes with other aircraft flying.
  - 26.3 Only Solo or higher proficient helicopter pilots may join the fixed wing circuit and only if they maintain forward flying speed in the same direction as the other aircraft.
  - 26.4 The hovering of helicopters over the runway or in the flying circuit is forbidden when fixed wing aircraft are flying.
  - 26.5 Due care and consideration should be observed when fixed wing fun fly, 3D type or park flyers are flying.
  - 26.6 It is advisable after announcing your intentions to land, to do so, off the runway on say the "on" or "off" taxiways or on the designated helicopter area. This is to avoid a situation where an aircraft needs to land (due to a dead motor etc.) and a helicopter has landed on the runway and its rotors are spooling down and the helicopter pilot is unable to move his helicopter from the runway.
  - 26.7 Helicopters shall not weight more than 6.5kg (including fuel and drive batteries) for F3C and F3N style of flying, scale helicopters shall weight no more than 23 kg excluding fuel and drive batteries.

## **Special requirements for participating in an Air show**

### **Instructor Rating Required**

When a pilot intends to fly at an air show, a **Helicopter Instructors Proficiency** rating is required.

The distance between the crowd line and the display line should be a minimum of 30 meters or more. If this is not possible then a safety net of at least 2m height shall be erected at the crowd line. Flying of non-FREESTYLE type manoeuvres i.e. F3C and normal aerobatics can still be flown without a safety net if deemed safe by the event organizers.

F4K (scale) helicopters can be flown in a scale like manner without the need for a safety net.

A schedule of manoeuvres shall be provided to event organizers and MHSA for approval at least 7 days prior to air show. All manoeuvres shall be done parallel to crowd line with turns as far as possible away from the crowd. No sudden stops of helicopter will be permitted towards the crowd. Any deviation from these safety rules will result in an immediate call for landing by the designated safety officer of the event.

See FAI document *SC 4 – Aeromodelling Volume F3 Radio Control Model Helicopters* for additional safety suggestions and manoeuvres.

### **Caller - Compulsory**

After leaving the start box, the pilot is allowed one caller. The caller must give information to the pilot during the flight and enforce all required safety rules in assistance with and under the support of the safety officer, as stipulated in the quoted FAI and SAMAA documents.