Radio Control Aviation South Africa

Type: RW Guideline

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## **General Safety Rules for Radio Control Helicopters**

- These rules are model helicopter specific and are to be used as a supplement to the general safety rules of RCASA.
- We also refer to FAI document SC 4 Aeromodelling Volume F3 Radio Control Model Helicopters as updated yearly, used as guideline. FAI is a Sport Ruling organization, not a regulator as such.

## **GENERAL SAFETYRULES**

- 1. Only pilots flying, and their instructor or observer may be in the flight area.
- 2. The use of an observer is strongly recommended, especially if two or more helicopters are flying simultaneously.
- 3. 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.
- 4. Never under any circumstances fly the helicopter between yourself and the spectators, other pilots and the pit area.
- 5. 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 or pit area.
- 6. 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.
- 7. 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.
- 8. 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.
- 9. 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.
- 10. Do not hover directly in front of other pilots. This is to ensure that they will have a clear view of their own models.
- 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.

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- 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 radiocontrolled 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 always have a CO2 type fire extinguisher on hand.
- 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. When flying your helicopter with fixed wing aircraft present it is advisable to comply with the following general guidelines.
  - 25.1 At many fields, helicopters are only permitted to take off and land from the designated helicopter area(s). Communications with other modellers and common courtesy between modellers are paramount to safely share the airspace. Take note only a maximum of 5 aircraft/helicopters are permitted to be airborne at once.
  - 25.2 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.
  - 25.3 The hovering of helicopters over the runway or in the flying circuit is forbidden when fixed wing aircraft are flying at the same time.
  - 25.4 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.
    - 25.5 Due care and consideration should be observed when at a predominately fixed wing fun fly.
    - 25.6 As always, mutual respect and communication forms the foundation of flying safely together with others.

Compiled by P Rossouw, C Steyn and P Joubert June 2022

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