Radio Control Model Aircraft Safety Checklist

Before Your First Flight....

Balance

- Is the longitudinal center of gravity (fore and aft) within the range shown on the plans?
- Is the model balanced laterally (side to side)?

Alignment

- Are all the flying surfaces at the proper angle relative to each other?
- Are there any twists in the wing?
- Do the wings and, where removable, the tailplane seat properly on the fuselage everytime?
- Is the engine set at the proper thrust angle as shown on the plans?

Control Surfaces

- Are all control surfaces securely attached? (i.e., hinges glued, pinned). Pull on each one to test.
- Are the control horns secured to the model?

Control Linkages

- Have all the linkages been checked to be sure they are secure?
- Are all the clevises closed? (keepers or fuel tubing should be fitted to ensure they stay closed)

Engine / Motor Security and Operation

- Are all engine mount screws tight, including mount to bulkhead if applicable?
- Is the propeller nut and/or spinner tight?
- Does the throttle work without binding?
- Does the throttle trim tab shut down the engine?
- Has the propeller been balanced and checked for damage?
- Are propeller tips painted a contrasting colour? (whilst not essential it makes the propeller much easier to see)
- Has the engine been thoroughly test run? (engine idle and throttle up properly)
- Is the fuel tank installed correctly? (i.e., carburetor at the same height as fuel tank, fuel tank klunk in proper position and moving freely, fuel lines in good condition and connected to the engine correctly)

Radio Equipment

- Are the receiver and battery securely mounted and padded with foam to protect from vibration and shock?
- Are all electrical connectors secure?
- Is the receiver's antenna fully extended and in good condition?
- Are the batteries charged and in good condition (check under load with a volt meter if unsure)?
- Are all servo securely fastened to the rails or trays?
- Are servo arms firmly attached with screw in place?
- Are all push rods firmly secure in servo arms (again keepers or fuel tubing should be fitted)?

- Are the control throws in the correct direction with proper amount of deflection (as per plan)?
    - Rudder & Tailwheel: Left stick should move the rear of the rudder and tailwheel to the left.
    - Nosewheel: Left stick should move the front of the nosewheel to the left
    - Aileron: left stick should move left aileron up and right down.
    - Elevator: Pulling back on the stick should move the back of the elevator up.
    - Canard: Pulling back on the stick (elevator) should make the front of the canard move up
    - Throttle: With trim set fully forward, pushing the stick forward should open throttle fully. With trim set fully backward, pulling stick back should fully close the throttle.
- Has a full range check been performed? (see below)

Undercarriage (where fitted)

- Is the undercarriage firmly attached to airframe and the wheels securelt retained?
- Does aircraft taxi in a straight line?

General

- Is the covering tight with no visible signs of damage?
- Are all retaining bolts in place and secure?
- Are any hatches, cowls and canopies secure?
- Are all components structurally sound?
- Are your name and contact details marked on the model somewhere easily visible? (in case it's lost).

Range Checking the radio

- Verify frequency is available and mark it as yours if necessary.
- Turn on transmitter check the correct model is selected (if applicable) and then turn on the receiver.
- **Important**: make sure the transmitter aerial is down fully.
- Ask someone to help and walk away from the model until signs if loss of control are apparent.
- If electric powered ensure that the range is not worse with the motor running.

Before EVERY flight:

- Verify your frequency is available and mark it as yours if necessary.
- Check the receiver battery pack to ensure enough charge for the flight intended.
- Check for damage and the control throw direction of all surfaces.
- ***For fuel powered models:***
    - Turn on the transmitter and check the correct model is selected (if applicable) and then turn on the receiver.
    - Start the engine and test the entire throttle range ensuring an consistent idle and acceleration response.
    - Check the engine at full throttle with the plane's nose straight up in the air? (to make sure it won't stall when full power is applied on climb out)
    - Take the model out to the strip and warn people you are about to take off.
    - As soon as you land switch off the receiver.
    - Switch off the transmitter and release the frequency for others to use.
- ***For electric models:***
    - Turn on the transmitter and check the correct model is selected (if applicable).
    - If the model has a receiver battery then switch on the receiver.

- Ensure the throttle is in the correct position and connect the motor battery.
- **WARNING:** The motor must now be considered live as the motor could start at any time without warning (possibly due to interference or faulty controller).
- Arm the controller if necessary and briefly check the motor functions correctly.
- Take the model out to the strip and warn people you are about to take off.
- As soon as you land disconnect the motor battery and switch off the receiver if necessary.
- Switch off the transmitter and release the frequency for others to use.