

# CF-105 ARROW



## INSTRUCTION MANUAL



## History of the Avro Arrow:

The CF-105 Avro Arrow was a Canadian built and designed delta wing interceptor. It was an incredibly advanced aircraft, with the promise of reaching mach 2 at altitudes over 50 000 ft. It took flight in 1958, powered by its Orenda Iroquois engine.

Shortly after the first prototypes were built, the Liberal party lost a federal election to the Progressive Conservative party under John Diefenbaker. At the time, it appeared as though missiles would replace combat aircraft for interception duties. Canada's NORAD partner, the United States was pressuring Canada to purchase the Boeing Bomarc missile system. Because of the costs of adopting the Bomarc it was decided that Canada could not afford the Arrow.

As a result, the government spectacularly cancelled the program in 1959, putting 50 000 workers out of work. Within two months, all aircraft, tooling, technical data and etc... were all ordered destroyed because of RCMP reports of a soviet mole in the Avro company. The 5 prototypes and production aircraft, and virtually everything else were destroyed.

KMP is honoured to bring this historically significant and great flying aircraft to the R/C marketplace.

### Instruction Manual

Please note that this instruction manual should serve as a basic guide to help the build process of this model. It is assumed that the builder already has a basic knowledge of model aircraft construction. Should you have any questions or wish to contribute to the guide, feel free to contact us toll free 1-888-968-7251.

## WARNING!

This model is not a toy and should only be flown by a capable model aircraft pilot. We do not recommend flying this model in small parks as speeds of over 100 Mph may be achieved with the model. Please fly only in a MAAC or AMA sanctioned field.

### Building Requirements:

5 & 30 min Epoxy	Hobby Knife	Rotary Tool	Ruler
Thin CA	Fine Sandpaper	Drill	Cloth

### Flying Requirements:

2 Mini Servos	Optional Retracts	Optional 3d Servo	Deans Connectors	5 Ch Radio w/mix
50+ Amp ESC	Brushless Motor	3S 2200Mah – 30C	2 - 9in Servo Ext.	12 Gauge Wire



1. Locate the servo bays on the bottom of the wing
2. Trim the covering away with a sharp #11 blade exposing the bays



3. After trimming the servo bays ensure there is an access hole to pull the servo lead through. Use a drill or metal tube to make your hole.



4. Position your servo and secure it inside the bay using silicone or two sided tape
5. Pull the servo lead through and make sure it is free of any kinks. Servo extensions may be necessary to reach the receiver.



6. Locate the ailerons and make sure you have 3 fabric CA hinges per side.



7. Use thin CA to secure the hinges in place
8. Repeat the same process for the other side



9. Locate the main wing spar. There is one for each wing.



10. Test fit the wing spar inside the fuse to ensure a smooth fit.



11. Locate the wing alignment pins. There are two for each side.
12. Drill a hole slightly smaller than the pin allowing for a tight fit. Place the hole toward the leading edge of the wing as shown in the picture



13. Secure the pin with Thin CA.
14. Repeat the procedure for the rear alignment pin



15. Gently slide the wing assembly into the fuselage. Mark the spots carefully where the wing alignment pins meet the fuse.
16. Drill the holes carefully and test fit the assembly.



17. Ensure the wing incidence is the same on both sides. DO NOT Glue the wing into place at this point.



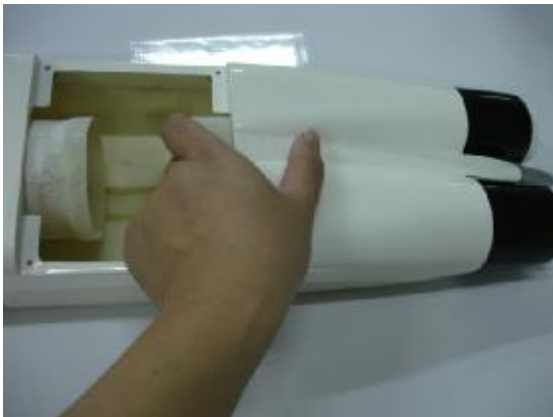
18. Locate the Vertical Fin.
19. Gently sand the lower contact points of the fin to ensure a tight bond with the fuselage



20. Using 5-30 minute Epoxy, glue the vertical fin in place. Use tape to secure the fin in position while the epoxy is setting.



21. Locate the fan hatch. Test fit the hatch and ensure a secure fit.



22. Position the rear fan shroud as far back as possible to create an opening to mount the fan unit.



23. Sand the opening of the shroud lightly to ensure a good bond with the fan unit.



24. Test fit the fan unit.



25. Test Fit the ESC. Measure the appropriate length of wire used to reach the receiver in the front of the aircraft. 12 Gauge wire works best.



26. Test fit the battery. Use “Deans” style connectors to join the Battery to the ESC.



27. Be sure that all the wires are run neatly through the compartment



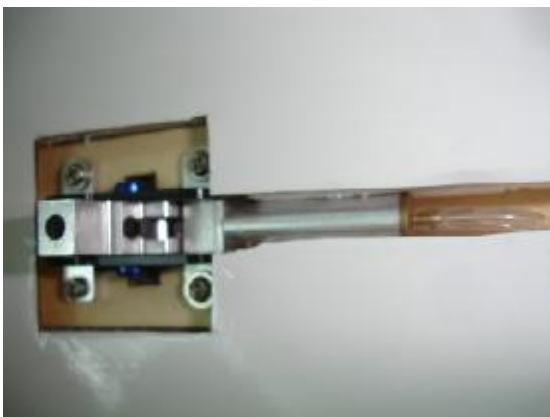
28. Locate the battery cover and test fit.



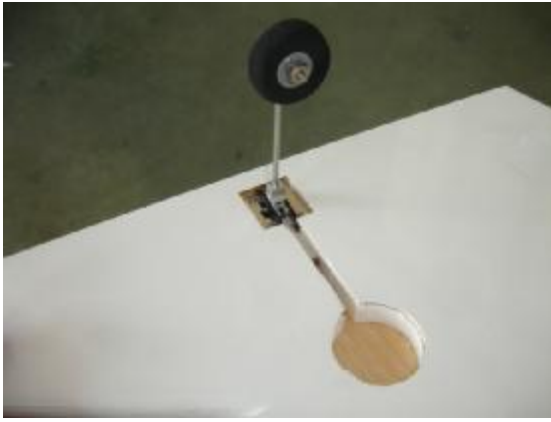
29. Use a straight edge to ensure the decals are applied level. Use a cloth to absorb the excess water and help secure the decals.



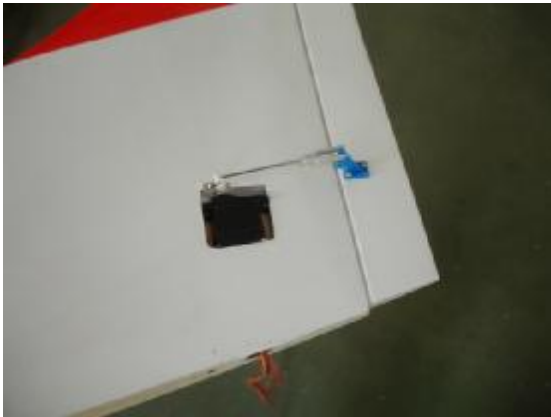
30. Run the air line through the mount  
31. Set the optional retracts into position.  
32. Using 4 screws set the gear in place



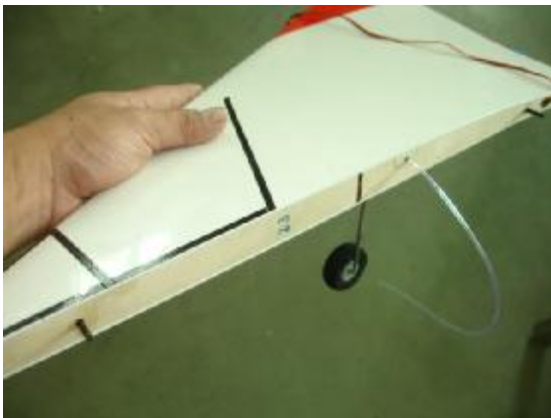
33. Finished assembly without the strut.



34. Using a wheel collar secure the wheel into place.
35. Finished assembly with the strut and wheel



35. Connect the servo to the control horn using a short pushrod and clevis.
36. Use an "Z" bend at the servo arm



37. Be sure that the fuselage has enough holed drilled to accommodate the air lines and the servo lead to pass through.
38. Now that the wing assembly is completed, you may glue the wing into place.



39. You may chose to cut out the wind shield. This will allow the air to cool the battery compartment more easily.
40. The Aircraft is finished. The CoG is located 9" behind the leading edge, Roughly at the center of the fan hatch.