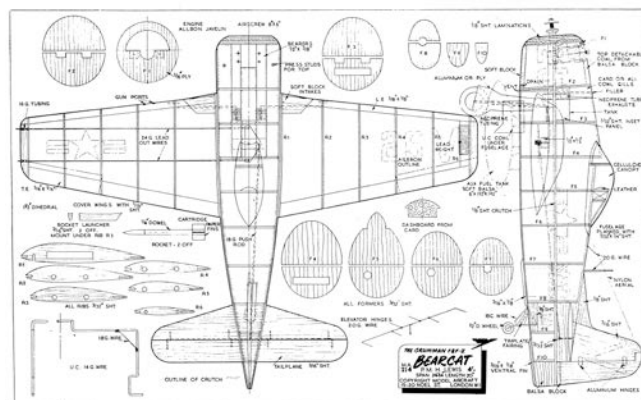
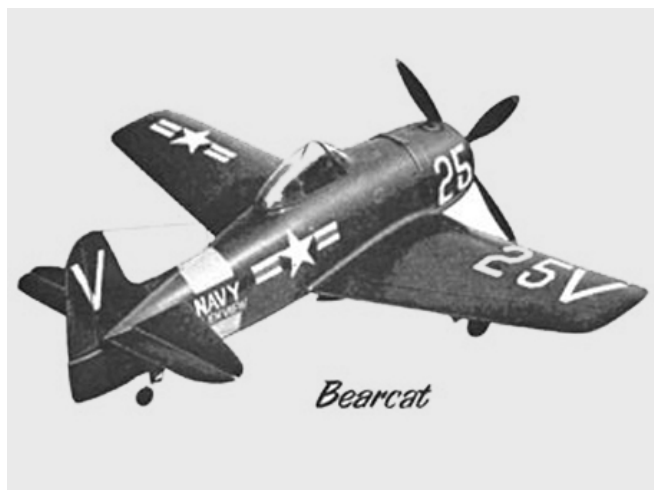


Grumman Bearcat



A Super Scale Control Line Model of a U.S. Navy Fighter for 1.5 c.c. engines by Peter Lewis.

The last of the distinctive line of piston-engined Grumman fighters produced for the U.S. Navy, the Bearcat first appeared in 1945, and although no longer in front line service, it equips a number of U.S. reserve units. Powered by a 2,500 h.p. Pratt & Whitney R-2800-34W engine, the Bearcat has a maximum speed of 425 m.p.h. and a range of 1,650 miles.

This 1.5 c.c. Allbon Javelin powered model is of an F8F-2 from the station at Glenview, Chicago, Illinois.

Fuselage: The crutch is the component about which the fuselage construction is center, so it is the first item to be cut from 1/8 in. sheet. Slots are made for the push-rod and for the 1/2 X 3/8 in. hardwood bearers, which are cemented in place after the 14g. wire undercarriage has been bound and glued to them. Former F1 is cut from 1/16 in. plywood, while F2-F10 inclusive are of 3/32 in. sheet. Pin and glue F1 to the front of the bearers and cement the formers to the crutch. The 3/32 in. sheet tail- plane supports and the 1/8 in. sheet tailwheel mounting, complete with 1/2 in. wooden tailwheel on 18g. wire axle, are next fitted. The tank is located between F2 and F3. Fit the aluminium or paxolin control plate with an 8-B.A. nut and bolt to its cross-piece of 1/2 X 1/2 in. hard wood. This in turn is pinned and glued to the main bearers. Three-six- tenth in. sheet is used for the tailplane, which is the next part to join the crutch, followed by

the fin of the same material and a dorsal fin of 1/8 in. sheet.

Planking of the fuselage with 1/4 X 3/32 in. strips follow's, the upper half being treated first between formers F2 and F10. The push-rod of 18g. wire is cut and threaded through the openings in the formers, to be secured to the control plate at one end with a soldered washer, and at the other to the elevator hinge off 20g. wire in the same way. Twenty- four g. leadout wires are also fitted before the completion of the planking. Slots are left on the port side for free movement of the wires.

The fixed lower part of the cowling is made from hollowed out soft block, and so also is the detachable upper portion. Press studs are sewn and cemented to keep the latter in place. Three 1/8 in. sheet laminations form the front cowling ring. Between F2 and F3 there is an inset panel of 3/32 in. sheet, aft of the exhaust stubs, which are later fitted from neoprene tubing. Note also the down thrust which is a noticeable feature of the full-size Bearcat. Soft block fairs the rear of the fuselage, the whole of which is sanded before cementing the two 1/8 in. sheet ventral fins in position.

Wing: The leading edge of 1/8 X 3/8 in. and the trailing edge of 3/4 X 1/16 in. sheet are pinned to the plan and ribs R1-R6 of 3/32 in. sheet cemented in place. Cut-outs for the 24g. wires are needed only on the port side. Wing tips are of soft block with 16g. tubing on the port side and a lead balance weight on the starboard. When set, Remove the wing halves from the drawing and cover them with fc in. soft sheet, the grain running span wise. Root intakes are formed from soft block with slot openings cut in the

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faces. Slots arc cut in the lower surfaces to accommodate the undercarriage legs and are covered again when the wings are fitted. The wing halves are sanded and pre-cemented at the root ribs, before being placed in position on the fuselage with 1 1/2 in. dihedral at the tips.

Rudder and Elevators: These items are next cut from 3/16 in. sheet and sanded to shape. The rudder is attached to the fin with two inset aluminium hinges and the elevators are pressed and cemented on to their wire hinges.

Covering and Finish: The entire model is covered with Jap silk or heavy weight tissue after it has been filled with sanding sealer and rubbed down to the smoothest possible finish. Several coats of midnight blue dope are applied, wet sanding with soap and water being used after the first two applications. The finish is then further improved with polish, applied with a soft cloth.

Details: The dashboard is drawn on card with Indian ink and glued to F4. The headrest is cut from leather and the celluloid canopy cemented in position. The framework is painted on. Undercarriage, doors are cut from plywood or aluminium and wired and soldered to the legs after fitting the 1 1/2 in. celluloid wheels. Aluminium or card doors are glued to the fuselage. The wing tips are cut away to take the glass-headed pin navigation lights which are then covered with celluloid. The tail light is pressed into the rear of the fuselage. 20g. wire aerials are fitted to the rear top decking and gun ports are cut in the leading edges. Cooling gills are cut from card and cemented to the rear of the upper engine cowling between the exhaust stubs. Rocket launchers of 3/16 in. sheet are cemented outboard of the gun ports below the wings.

Painting: The wings carry the star and bars insignia on the port upper and star-board lower surfaces with 25 NAVY on port lower and 25V on starboard upper. The fuselage has 25 on the cowling, star and bars below the rear portion of the cockpit, an orange band bisected on each side by NAVY GLENVIEW (in orange) and, at the rear, F8F-2, NAVY, 95437. A large V appears on the fin and rudder, all lettering being in white except as noted. A final overall wax polish is

given together with a coat of fuel proofer. For exhibition, a four-bladed airscrew is fitted but a plastic 8 in. X 4 in. fine is recommended for flying.



The amount of detail makes the Bearcat worthy of entry in any Concours.

Model Aircraft Magazine June 1955