We look at the DIGIFLEET 4-6

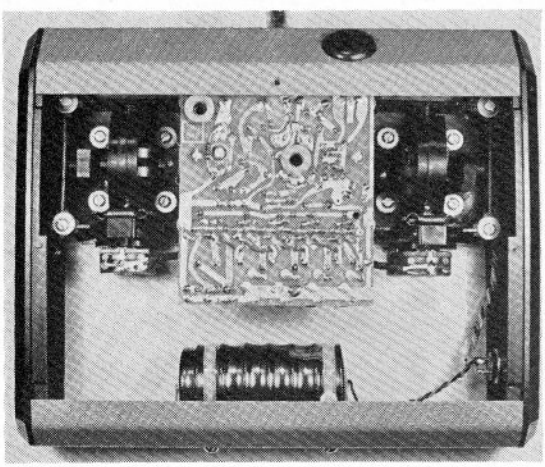
LATEST NEW-STYLE OUTFIT FROM FLEET CONTROL SYSTEMS

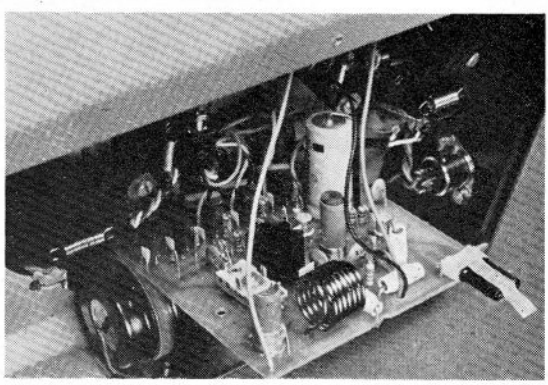
THE name of Fleet, for many years was associated with pulse proportional systems, but some time ago they decided to concentrate solely on digital units, and more recently to aim at a much wider market, by distributing to model shops via a wholesaler —Model Flight Accessories. Their latest four function proportional unit introduces several significant changes in design and styling, and features a plug-in crystal facility. The transmitter now has an angled aerial, and is fitted with new smooth-action stick units, while the servos are fitted with the WE 3141 i.c. three-wire amplifier, the whole system giving fast response and high resolution. This is yet another outfit to discard the once almost universal charger-in-transmitter, in favour of a separate unit which, in this case, will charge transmitter and receiver jointly or separately.

TRANSMITTER

This is not designed to a "minimum proportions to accommodate the works" philosophy, but has been laid out with ease of access and comfortable handling the prime requisites. It is slim for a comfortable grip, light in weight, and the balance is good, with the long aerial being angled for optimum radiation. The case is made from blue vinyl clad aluminium, and has a removable back panel secured by a single screw. The case ends are injection moulded in black plastic with a textured surface.

A shrouded slide switch is situated on the top of the case and a rubber plug is removed to give access to the crystal. The front of the case carries a panel mounted output meter, numerically calibrated, and a metal neckstrap bracket. The control sticks are sited conveniently near the sides of the case, with the trims on the inner and lower edges,





Left: roomy easy-to-handle transmitter—note rubber bung for crystal access, shown removed in close-up below left. Above: p.c. board partially removed to show electronics. Below: charger provides individual or simultaneous operation for Tx and Rx batteries.

comfortably within reach. The charging socket is positioned on one side panel.

The stick units are of moulded plastic construction, with plated escutcheons and trim levers. The sticks themselves have a metal ball and are chromed overall, the top ⅜in. unscrews, for those who prefer thumb operation. There is easy transfer of the throttle function from Mode 1 to Mode 2 and it is of the ratchet type, with 14 increments of movement, plus trim.

The electronics are neatly arranged on a small glass epoxy based p.c. board. Epoxy trim pots are mounted edgewise with a thumbwheel for ease of adjustment.

Size: 8in. wide x 6¾in. deep x 2in. thick. Sticks project 1⅝in. and reduce to 1½in. by unscrewing the caps.
Aerial: 54in. retracts to 6½in. and unscrews for transit.
Weight: 2lb. 2oz.
Operationg voltage: 8.4 volts supplied by 500 DKZ Deacs.

RECEIVER

The receiver is a two deck unit. One board carries the superhet which has double tuned front end, and the other board a descrete form decoder. The crystal socket is situated at the end of a two-piece plastic case, which is strongly constructed, and held together with four screws, so that the p.c. boards are clamped edgewise in the grooves. The cables are four wire, yet the pin configuration suits three wire servos as supplied. A miniature block connector serves three servos, and a separate cable and socket is provided for the aileron servo. All wires exit via rubber grommets.
Size: 1¾ x 1⅜ x 1½in.
Harness: 4½in. long.
Weight: 2oz.

SERVOS

World Engines S5 mechanics and i.c., form the basis of the servos. Fleet circuitry accounts for the few descrete components, all of which are of high tolerance. They are fast and accurate, both mechanically and electronically. Resolution is very good and power adequate for modern applications. The cable terminates in a sleeved, polarised, miniature plug.

The servos are provided with both long arms and discs, the latter being drilled with a multiple pattern of holes, to enable differential action to be achieved. Two of the servos are supplied in reverse mode.
Size: 1⅜in. long, plus ½in. lug each end x 1⅜in. deep, plus ½in. over lever x ⅜in. wide.
Harness: 8½in.
Weight: 1.75oz.
Throw: outer hole: 11/16in.; trim: 5/16in.; centre hole: ¼in.; inner hole: 1/16in. (trims pro-rata).
Transit Time: approx. 0.5sec.
Power: Over 2½lb. typically.

POWER PACK

A stack of 500 D.K.Z. Deacs, centre tapped, supplies the power for the airborne system, and is enclosed in a square plastic case, which is in two parts, bolted together. A three wire cable for the switch harness, and a two wire charging harness, exit via a rubber grommet at one corner.

The switch is a miniature slide type, enclosed in a plastic cover.
Size: 1½in. square x 1⅞in. long.
Harness: 6in. to switch plus 6in.
Weight: 4.5oz.
Voltage: 4.8v.

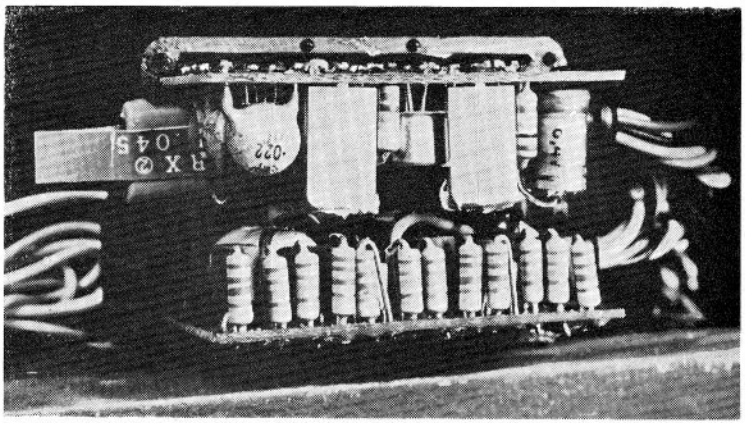
FLYING WEIGHT: 13.5oz.

CHARGER

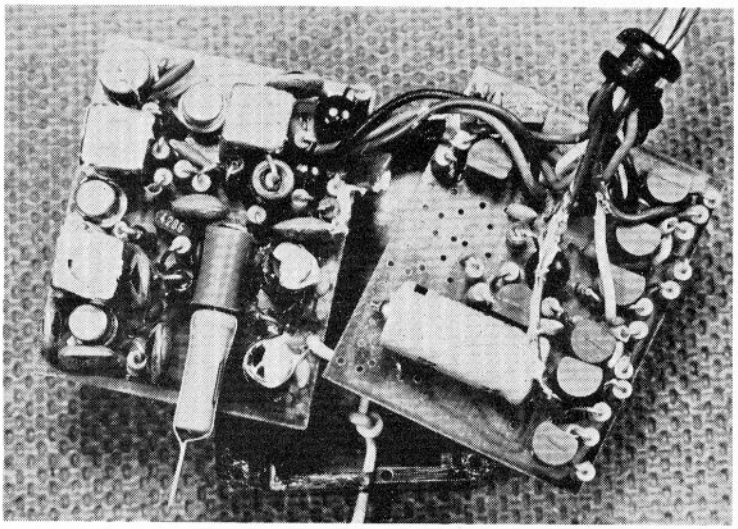
The mains charger is separately housed in a black plastic case and facilitates the charging of both transmitter and receiver batteries either simultaneously or separately. Two pilot lamps indicate that charging of the appropriate battery is in progress.

SERVICING: Fleet Servicentre, 14 Oakwood Road, Bracknell, Berks.

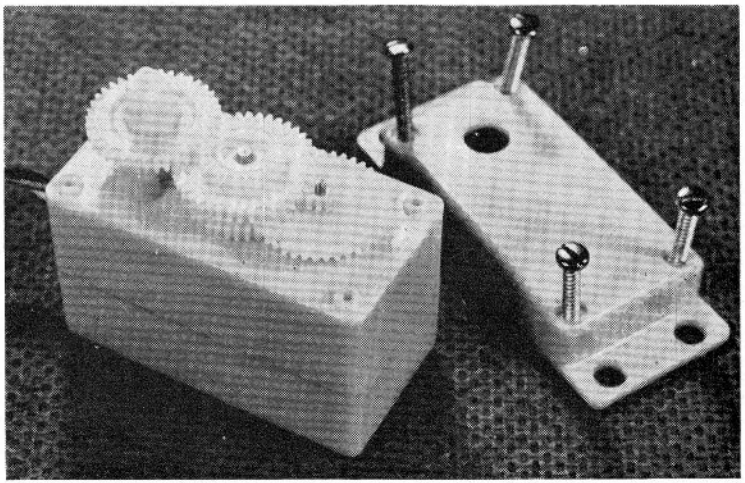
DISTRIBUTION: Model Flight Accessories, 3 Charles Street, Chertsey, Surrey.

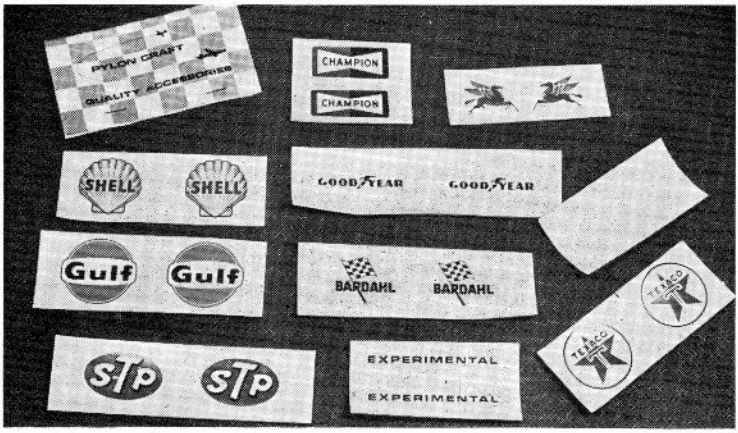


The compact two-deck receiver, here shown with half case removed and, below, opened up to show the superhet (left) with plug-in crystal and the decoder deck (right).



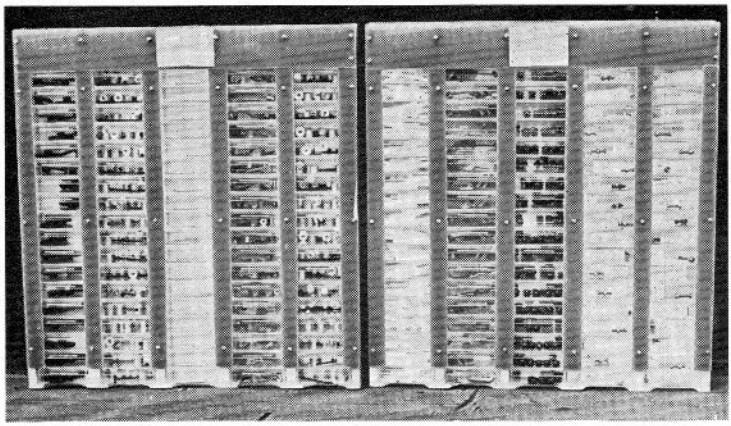
The servos have World Engines S5 mechanics, and also employs the WE3141 integrated circuit plus Fleet circuitry for the discrete components.

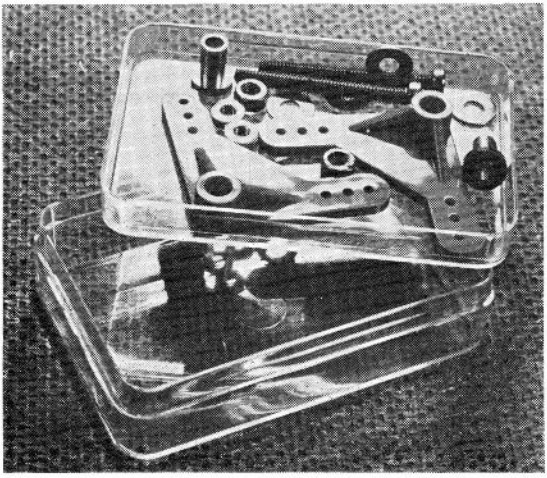




Above: a further selection of transfers in the Pylon Craft range—to the same high standard as those reviewed in our September issue. Below: useful dispensers containing individual plastic boxes from Super Models are to be seen in your model shop. A sample of the contents—bushed bellcranks—are shown in their useful clear plastic packing box in the lower photo. Control horns, grommets, tiller arms, wheel collets and so on, are also available in this packaging.

We watched a fascinating demonstration of the Kavan Helicopter—to be imported by Ripmax—recently. Very impressive quality product, incorporating collective pitch and also a gyro controlled feedback system to the yaw servo, to ensure stability. This is so good that the model was demonstrated flying hands-off as pilot Bruno Gottfried—right in the photo below with Franz Kavan—placed the transmitter on the ground ! !





supplied with 2ft. of cable with crocodile clips for connection to the battery.

To cater for a growing need for purpose-made two channel radio for car and boat use, MFA are now marketing their " G/T " radio—an advance prototype of which was on show at the Esher Symposium earlier in the year. As can be seen from our illustration, the transmitter has a steering wheel, instead of " joysticks ". This wheel is spring self-neutralising, with a trim lever at the side of the case, and the throttle lever, for operation by the left thumb, is spring loaded to the " slow motor " position. The outfit was designed by MFA themselves, using Fleet electronics. The transmitter is very light and small, the case measuring only 6 × 4½ × 2in., and using a PP7 dry battery. It has a vinyl covered case, with angled aerial and plastic end-plates. The receiver measures 1¾ × 1½ × 1¼in. and the switch harness incorporates the neat miniature SLM connectors. Servos are the S4 type and a 225 nickel cadmium rechargeable battery is supplied for the receiver. The outfit has plug-in crystals for easy interchangeability—a feature to ensure you a welcome at any race track or pondside. MFA are now distributing the well known *Fleet* equipment, and we have also received a sample of the new DigiFleet 4-6 outfit, which is the subject of closer scrutiny elsewhere in this issue.

Shown for the first time at the recent Do It Yourself exhibition, in London's Olympia, was the **Humbrol** Multicraft range of tools. This offers a complete outfit of knives, blades, gouges, files and accessories for working in hardwood, balsa, plastics, card etc. Each item may be bought separately or in one of a number of kits. Our samples (shown in the photo) are of the extreme ends of the range. The No.1. pocket kit consists