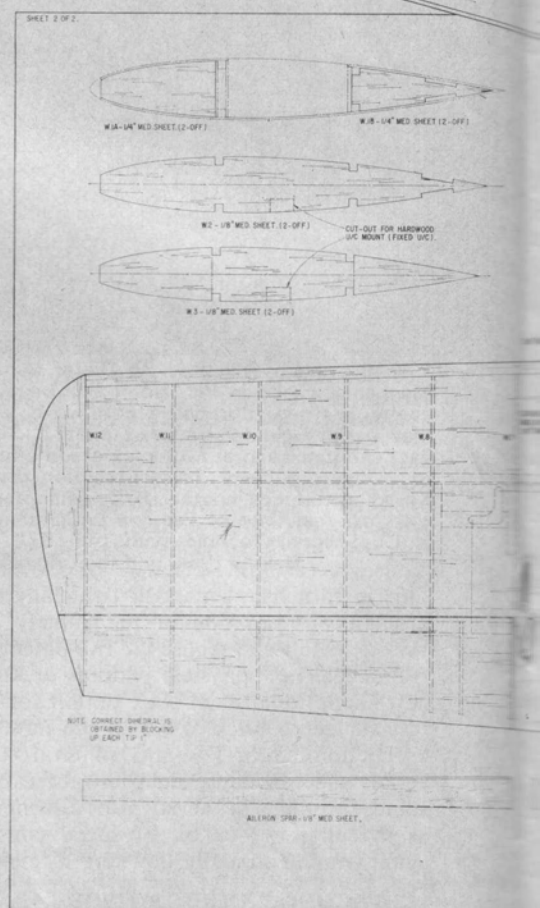
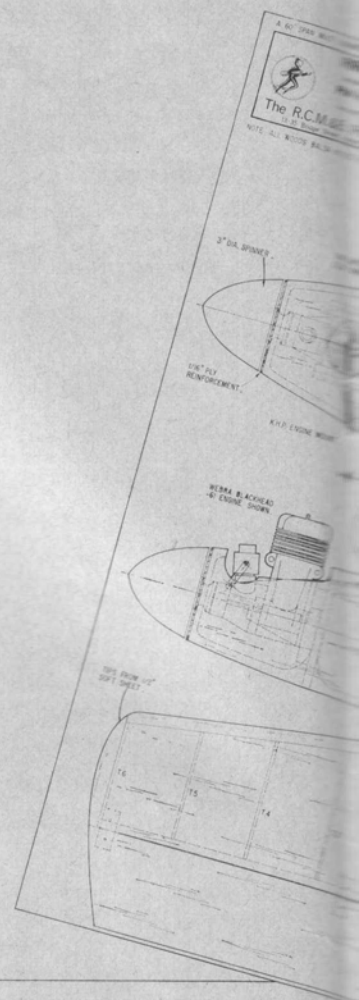


FIRE~FLI

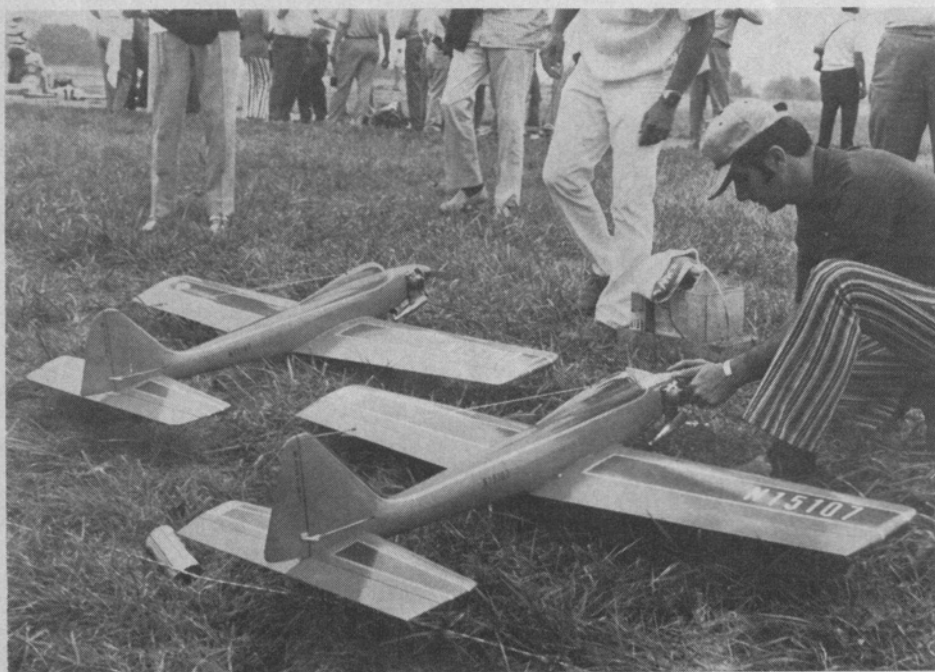
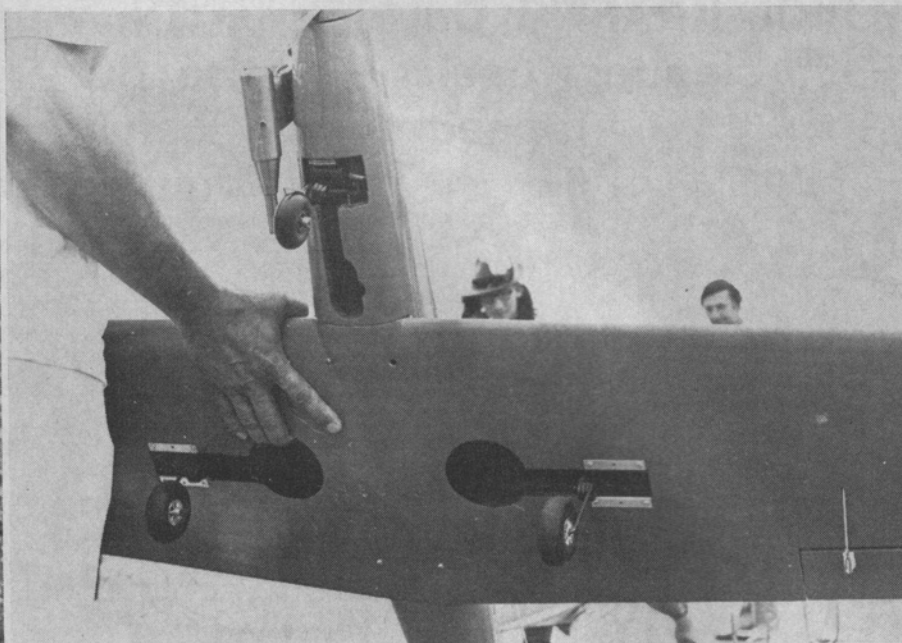
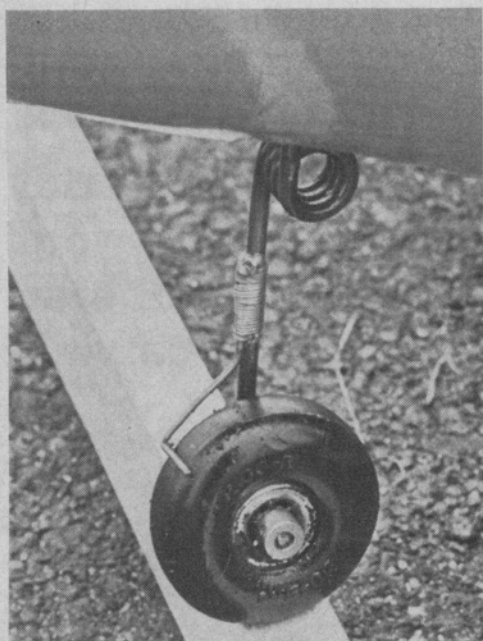


THE 'Fire-Fli', with its rounded fuselage, thick fin, and bolted-on stabilizer, was designed with possible later production of the fuselage in plastic in mind. The wing design was borrowed from the previous 'Dragon-Fli' and the aircraft has been flown with both strip and conventional ailerons. Either are satisfactory with a possible slight edge going to the conventional type. The original had fixed landing gear and weighed in at $6\frac{1}{4}$ lb. before lead was added to bring the weight up to 7 lb. This weight seemed about optimum for this configuration.

The retractable gear version, which I used during the 1970 season, had strip ailerons and weighed 8 lb. The retracts added a great deal to the flight performance as manoeuvres seemed cleaner and more easily accomplished. The great speed, however, was something of a handicap as I never did get really accomplished at consistent positioning. For the 1971 World Championships, additional weight was added to the two new versions with conventional ailerons. These now weighed in at $8\frac{1}{2}$ lb. and the extra weight produced great smoothness in windy weather and tur-



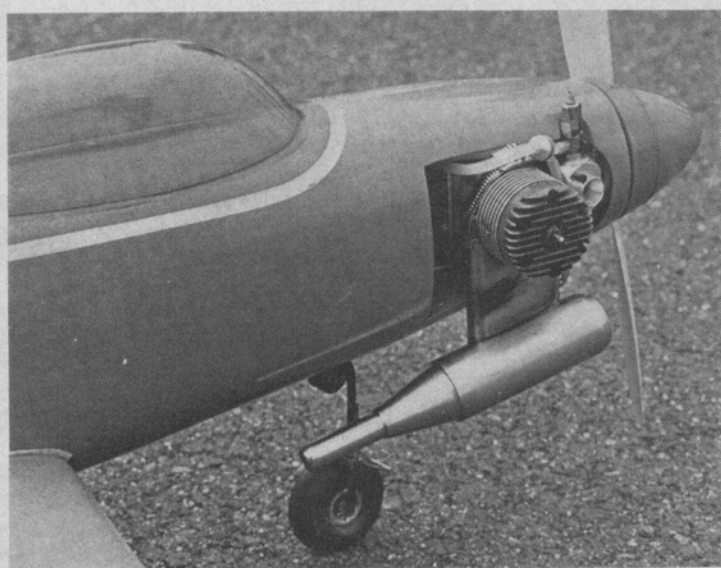
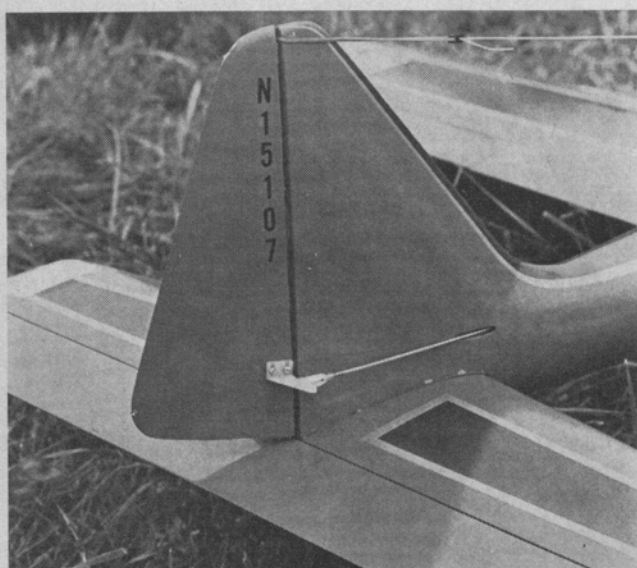
Full-size copies of this two-sheet plan shown



bulent air. They were, however, a bit too heavy for optimum performance in calm conditions.

The speed of the 'Fire-Fli' is in contradiction to my previous ideas of contest flying. It's certainly true that you can use throttle to tighten up manoeuvres, but generally speaking, the fast, heavy aircraft don't fly very well unless they are really moving. As far as contest performance is concerned, I have finally come to the conclusion that it really doesn't make any difference what type of aircraft you fly, so long as it best suits your style and abilities. The diversity of types in the winners' circle at the Championships is clear evidence of this.

The 'Fire-Fli' is a very smooth, easy to fly aircraft. I personally think that it may be a bit too fast, but perhaps there is a little old age creeping in as well. One thing that is outstanding and a bit different is the method of fuselage construction. Two 2 x 4 x 48 blocks of



Left: The Fire-Fli uses the Kraft/Multicon retract system, rather naturally. Close-up detail of wing and fuselage underside here shows installation which can easily be used as a basis for installation of alternative retract units. Far left is detail of simple yet effective drag break of noseleg, which is all that is required to hold model stationary before commencement of take-off run as required by F.A.I. rules. Centre left: Nice to have your very own pit man to take away the burden and worry during World Champs. Here, Marty Barry who works at Kraft Systems gives identical No. 1 and reserve Fire-Fli models the once-over prior to flight at Doylestown Championship. Bottom left: Detail picture of tailplane and nose section showing rudder linkage, simple one-piece elevator and Webra 61 motor installation. Right: touchdown at Doylestown. Phil brings in the Fire-Fli at end of official flight, watched by Cliff Wierick who called the manoeuvres.



balsa are tack-glued together in the centre of the wood. The nose section at the fire wall is then sawn off, being careful to be sure that the cut was square. Then the plywood fire wall and nose are tack-glued back on to the main block. The top and side outlines of the fuselage are traced on to the block and it is then sawn to shape. It is a simple matter of a sharp knife and an hour or so of whittling and the basic fuselage

shape is accomplished.

The fuselage is then split apart, hollowed, the nose former removed, and the motor mount section built up. Then the whole thing is glued back together permanently, resulting in a very light, strong fuselage. Another advantage to this type of construction is that in the case of a crash, it's quite easy to pick up the pieces and glue them all back together again in a relatively short time. The

only disadvantage is that the quantity of balsa involved is rather expensive. Overall, the 'Fire-Fli' design is a very practical aircraft with no major vices. I have always enjoyed flying it, just as much for sport as for contest. In fact, because of its speed, perhaps more so for sport flying. It really puts on a spectacular show. Good luck.

Phil Kraft

