

GTA-130, A KIT-BUILT TOWPLANE

CHRIS FALCONAR

For years Canadian glider clubs have relied on aircraft that were not designed specifically for glider towing. The Tiger Moth and other war surplus aircraft have filled the needs of glider clubs for many years since the war. They were cheap and reliable. However they are now almost extinct and their value has risen enormously. By modern standards they are difficult and very expensive to maintain. Canadian gliding clubs then went to aircraft such as the Super Cub and Champion Skytract. These, although reasonable to operate as far as fuel and oil consumption is concerned, are quite expensive to purchase. They still suffer from inefficiency as far as glider towing ability is concerned.

What we need is something that can be easily put together from a kit or plans, that is rugged, extremely simple and has sufficient power and is above all efficient. Falconer Aircraft of Edmonton have submitted a design study of such an ideal tow aircraft.

The three view will give you an idea of its appearance. The square lines and boxy shape are essential if a very simple-to-build aircraft is to be realized. The generous wing and tail surfaces contribute to good climb and control characteristics. It will be observed that the wing and tail surfaces are very thick in cross section, thus very light structures are possible.

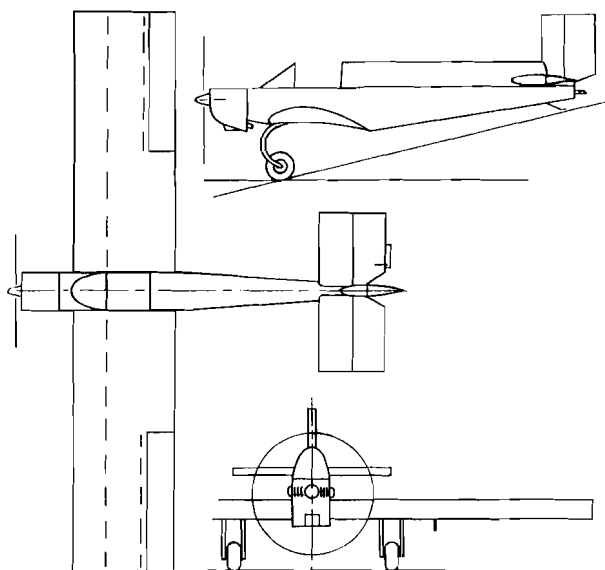
Construction is all metal. It is proposed to produce kits of materials for this aircraft for the Canadian gliding clubs and individuals requiring a practical towplane. It would come under the classification of a homebuilt aircraft. There is no restriction on the use of a homebuilt aircraft for glider towing. D.O.T. in Ottawa has been approached with the idea and has been receptive to the proposal. The kits, of course, would have to meet with the basic requirements of homebuilt aircraft policy; that is, most of the airplane must be built by the club or individual. Falconer Aircraft, however, would supply the necessary materials and parts prefabricated. Wing spars would be flanged

and wherever long bends were required this would be done.

The unique undercarriage is extremely inexpensive and utilizes very simple trailer wheels. These are equipped with brakes. A tailwheel would not be necessary unless the tow plane was operating from paved runways. Dihedral is not considered necessary due to the towplane's short flight. As with the European Jurca designs it is quite probable that there will be a small amount of inherent stability at low speeds. Sliding canopy could be an optional extra. A very useful extra is a pair of cowling gates that can be rotated closed after the aircraft has completed its climb and the glider has released. The towplane may then be dropped back to the flight strip with the gates closed, thus preventing too sudden cooling of the engine cylinders.

It is hoped that this design study will generate some interest in a practical solution to the need for a good towplane at low cost. It is estimated that the basic kit by Falconer will be around \$1,000. A good engine and propeller with half time on them should cost about \$1,000. An electrical system would be unnecessary. Using pop rivets for most of the assembly construction time would be about 300 to 500 hours.

For further details interested clubs and individuals should contact Falconer Aircraft Ltd., Hangar 7, Industrial Airport, Edmonton, Alberta, Canada.



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