

V.H.F. RADIO FOR GLIDERS

By TED NELSON

Radio communication between glider and tow car has been the dream of practically every glider owner. Most have made some inquiries about such equipment and have given up when they found it would be necessary to be a "ham" radio operator with valid license or that the F.C.C. officials in local areas were unable to provide information about obtaining a license for a glider and mobile equipment.

The Federal Communications Commission revised the 'Rules and Regulations Governing Aeronautical Services, Part 9' and effective May 1, 1947, in sections 9.711 through 9.719 thereof, have made available for ground and aircraft stations the frequencies of 123.1, 123.3 and 123.5 MC. These frequencies are allotted to flying schools and soaring societies and are shared with flight test station on a noninterference basis.

Application for installation of the mobile station to be used on the ground may be made by properly completing duplicate copies of F.C.C. forms 401, together with quadruplicate copies of F.C.C. form 401-a and forwarding them to the Federal Communications Commission in Washington, D.C. Upon completing the installation, an application for license may be submitted in duplicate on F.C.C. form 403. Application for a flying school radio station aboard the glider may be made by forwarding one properly completed copy of F.C.C. form 404 to the Commission.

A restricted radio-telephone operator permit is sufficient for the operation of a radio-telephone station in the aeronautical service. This license can be obtained from practically any designated C.A.A. inspector.

The rules state that a flying school station license will be granted only to flying schools and soaring societies. However, I found the Department very co-operative and that one need only to state that they operate a flying school on the application and that will be sufficient.

The power output of flying school stations shall not be more than 50 watts for land mobile station and not more than 10 watts for aircraft station.

The application asks why the radio station is deemed to be necessary and the purpose for which it is to be used. The proper answer is to state that it is to be used for instruction purposes and promotion of safety of life and property.

Investigation indicates that there are a number of V.H.F. aircraft sets now on the market. The names of a few are:-

Lear, Inc., Grand Rapids, Michigan.

National Aeronautical Corp., Wings Field, Ambler, Pa.

Aircraft Radio Corp., Boonton, N. J.

Any of the above sets can have 123.1, 123.3 or 123.5 MC transmitting crystals installed. The F.C.C. will grant only one frequency to a station and it is suggested that all interested glider owners who operate in a given area concentrate on the same frequency so that a single mobile unit will be able to communicate with all the ships in that area. I state this because radio installation permits for the aircraft are relatively simple to obtain whereas the mobile permit presents much more of a problem. The actual installation in the car is also a problem. The standard V.H.F. aircraft radios are all 12 volts and

The Aero-Club of Switzerland's Fiftieth Birthday

The Aero-Club of Switzerland will this year celebrate its Jubilee. Founded at Berne on March 31st 1901, it started life with a membership of 72 whose activities, under the chairmanship of Colonel Schaeck, were mainly concerned with ballooning. At the inauguration of the F.A.I. in Paris in 1905, Switzerland was represented by the AeCS. As time passed and the Club's eventful history unfolded, the balloonists were joined by the powered aircraft and gliding enthusiasts and by the model aircraft constructors, with the result that the Club today has 33 branches with a total of some 5800 members.

Swiss gliders have demonstrated a high degree of skill, and Samedan, as a centre of Alpine gliding, enjoys an international reputation. To commemorate its half-centenary, the AeCS will hold an official celebration at Berne on March 31st.

TG3-A GROSS WEIGHT

Schweizer Aircraft Corp., Elmira, announces that the CAA has completed data substantiating the TG3-A structurally for 1200 lbs. gross weight. The TG3-A will be a Class II sailplane at 1200 lbs. with the same placard speeds. The only affect Class II has is that it does not permit instrument flight at 1200 lbs. Only step remaining for final approval of the additional 100 lbs. is flight tests which are being planned now.

It is necessary to install an extra 6 volt battery in the car to provide the 12 volts. This is accomplished by using an electric 4-pole double throw relay which is wired to the two batteries so that they are normally in parallel and are both charged by the regular 6 volt generator. When the relay is energized, the batteries automatically are connected in series and this will supply the 12 volts for the radio. This system has proven very satisfactory by actual use for approximately a year. The complete ignition system will also have to be shielded and harnessed if reception is to be satisfactory at any distance with the engine running.

The forms mentioned herein and any other information pertaining to radio licenss, etc. can be obtained by writing to Mr. R. J. Slowie, Secretary, Federal Communications Commission, Washington 25, D.C.

Editor's Note: A letter was written to each of the three companies named above, telling them of this article and asking for information on any suitable equipment they might have. Lear was the only one which furnished a brochure indicating they could supply the simple transmitter and receiver needed. The transmitter and receiver can be furnished as separate units or as one unit, and to operate from either twelve or twenty four volt current source. The combination weighs five pounds and ten ounces without the battery and plate current source; matching dynamotor weighs 7 lbs. 8 oz. A storage battery will be needed.

National Aeronautical Corporation (NARCO) advised that they no longer make a simple VHF transmitter or receiver but are concentrating on the complete omnigator. They formerly made the simple transmitter and receiver but have discontinued them.

Aircraft Radio Corporation replied that at present they have nothing for sale for civilian use; that their entire production is going into military service.