

## RADIO EQUIPMENT and COMMUNICATION

Radio contact is a near necessity on an expedition of this nature, especially in case of injury or sickness. It is also useful in directing air drops and informing the outside support of the party's location and anticipated activities.

The Expedition radio, prepared by Irving Herrigstad of Seattle, was a Forest Service Unit SPF, Model AF, which weighs 12 pounds without batteries. The batteries weigh an additional 12 pounds and the antenna of No. 14 wire about 4 more pounds. (Total 28#). The antenna should have been made of lighter wire, preferably stranded.

The set transmitted at 3190 K.C. and is supposed to have a recommended range of 30-40 miles. With the proper antenna and tuning Irv Herrigstad was able to obtain a much longer range and justified taking the radio on the expedition, where a range of around 100 miles is required.

Radio contact was arranged with three receiver sources. A scheduled time was made with Yakutat Radio Range station for once a day. This contact was partially successful. The Bellingham Cannery at Yakutat has been authorized to use the 3190 K.C. and has a receiver tuned to this frequency continually. This was very desirable since contact with them could be made at any time. The third contact was with the Expedition plane, made feasible by a converter attachment in the airplane. Airplane contact was valuable in directing air drops and ordering additional supplies.

We anticipated placing the aerial and counterpoise directly on the surface of the glacier (hundreds of feet above ground), but found it impossible to make contact. Snowshoes made satisfactory antenna poles and the set operated superbly. The importance of the proper antenna was evident.

This set, although reliable, is quite outdated and heavy, and undoubtedly not the most desirable for an expedition where weight is a big factor.

Aside from radio contact, communication was made by standard body signals, by notes stamped and/or marked in the snow with dyes (water soluble), and by mail pickup.

The mail pick-up apparatus consisted of two poles about 10 feet high positioned approximately 20 feet apart, between which a loop of cod line was hung. Mail was securely fastened to the codline not in excess of  $\frac{1}{2}$  pound. The pickup hook lowered from the airplane was three pronged and weighted with  $1\frac{1}{2}$  or more pounds of metal (3 pounds recommended) to prevent sailing behind the plane. There was a breakable cord between the hook and the plane as a safety factor. Pickups were not entirely reliable. Nylon cord should be used in place of the cod line pickup loop.