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Admiral Albert C. Read, USN (Curtiss NC-4) Collection - Report of Transatlantic Flight of NC-4

Extracted on Mar-28-2024 10:55:53

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running. The generator should be mounted on an upper wing out of the slip stream of the propellers so that in a glide with motors cut it would be possible to send signals. Another reason is that the generator propeller is apt to become broken, being in the path of all traffic over the hull when on the water. Similarly, in the air, if anything such as a pair of goggles where blown off, the would break the propeller turning at 5000 R.P.M.

The oil field switch, sending key and antenna switch functioned properly, requiring no adjustments or repairs of any kind.

The 6-valve amplifier worked perfectly also, during the entire flight. Four extra tubes were carried but were never tried out, nor was it ever necessary to transpose tubes for a better combination, after they had been selected at Rockaway, even after 12 volts had been applied to the filaments for about a half hour, by mistake.

The only tendency for the amplifier to oscillate was slightly above 1500 meters.

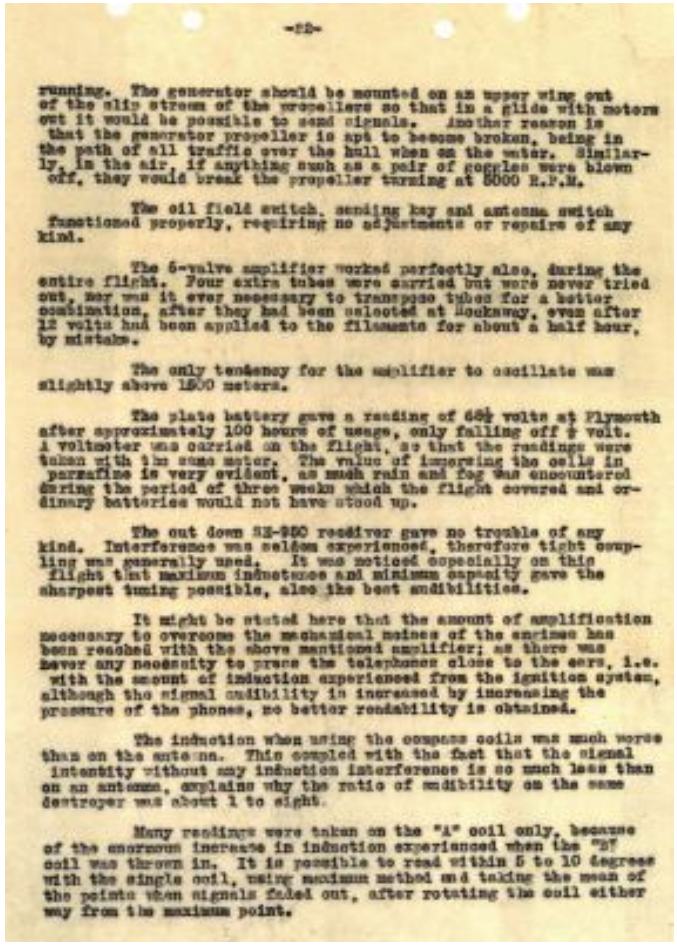
The plate battery gave a reading of 68 1/2 volts at Plymouth after approximately 100 hours of usage, only falling off 1/2 volt. A voltmeter was carried on the flight, so that the readings were taken with the same meter. The value of immersing the cells in parrafine is very evident, as much rain and fog was encountered during the period of three weeks which the flight covered and ordinary batteries would not have stood up.

The cut down SE-950 receiver gave no trouble of any kind. Interference was seldom experienced, therefore tight coupling was generally used. It was noticed especially on this flight that maximum inductance and minimum capacity gave the sharpest tuning possible, also the best audibilities.

It might be stated here that the amount of amplification necessary to overcome the mechanical noises of the engines has been reached with the above mentioned amplifier; as there was never any necessity to press the telephones close to the ears, i.e. with the amount of induction experienced from the ignition system, although the signal audibility is increased by increasing the pressure of the phones, no better readability is obtained.

The induction when using the compass coils was much worse than on the antenna. This coupled with the fact that the signal intensity without any induction interferences is so much less than on an antenna, explains wht the ratio of audibility on the same destroyer was about 1 to eight.

Many readings were taken on the "A" coil only, because of the enormous increase in induction experienced when the "B" coil was thrown in. It is possible to reading within 5 to 10 degrees with the single coil, using maximum method and taking the mean of the points when signals faded out, after rotating the coil either way from the maximum point.



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The only tendency for the amplifier to oscillate was slightly above 1500 meters.

The plate battery gave a reading of 68½ volts at Plymouth after approximately 100 hours of usage, only falling off ½ volt. A voltmeter was carried on the flight, so that the readings were taken with the same meter. The value of immersing the cells in parrafine is very evident, as much rain and fog was encountered during the period of three weeks which the flight covered and ordinary batteries would not have stood up.

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