## ENCLOSURE TO A. C. R. 248/13/54 dated 28th August, 1954.

## MODIFICATION TO TRANSMITTED TYPE 5G TO COMBAT INTERFERENCE TO T/V CEPTION

By Mr. F. W. Charrett, S. C. C. O., R. N. V. (W). R.

The writer has been experimenting over a period on Transmitter Type 5G to improve its performance on a number of frequencies not harmonically related (as is the case with R. M. V. (V). P. frequencies), and to reduce its harmonic radiation, particularly in Television Band 1 (41-68 Mc/s).

The existing transmitter was designed to end feed and antenna cut to half-wavelength at the operating frequency, and will work at full efficiency only under those conditions.

Since the average Reservist must of necessity erect a fixed length of wire in his garden which must serve for all frequencies he uses, and the correct length would in many cases be prohibitive anyway (e.g. 86 feet at 5 Mc/s), the transmitter will in most cases be working at sub-normal efficiency, together with the fact that the impedance mis-match between transmitter and antenna is conducive to harmonic radiation. The existing output circuit is shown in Fig. 1.

Admiral Commanding Reserves, Queen Annes Mansions, It. James Park, London, I.W.1.

13th April 1951.

All District Officers
R.N.V.(W).R.
All R.N.V.(W).R. Training
Gentres

## SUPPRESSION OF T/V INTERFERENCE IN TRANSMITTER 5.G.

The attached modification to Transmitter 5.G. as carried out by Telegraphist Morton of Derby for T/V Interference Suppression, is promulgated for information.

- 2. It is desired to point out that this modification will not necessarily be successful in all cases.
- 3. Since those tuning units are no longer available from Stores, approval is hereby given for the purchase of this item as a charge to the W/T Improvement Fund where necessary.

For Admiral Commanding Reserves.