

## TYPE 617S

## SUMMARY OF DATA

## PURPOSE

A general purpose medium power (300W) H.F. communications transmitter for use in shore stations.

## TYPE OF TRANSMISSION

C.W., M.C.W. and Voice.

## FREQUENCY RANGE

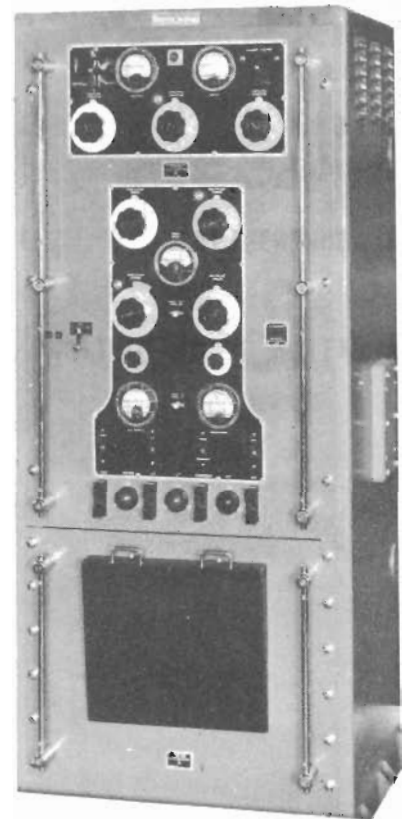
1.5 - 20 Mc/s.

## MAJOR UNITS

Type 617S comprises principally A.M. Transmitter T1509 (Ref. No. 10D/1724) which contains the following units.

<u>A.M. REF. NO.</u>	<u>DESCRIPTION</u>
1. 10D/1758	Transmitter Unit Type 59
2. 10D/2604	Multiplier Unit
3. 10U/239	Amplifying Unit Type 367
4. 10V/600	Oscillator Unit
5. 10K/1454	Power Unit Type 381

Note Items 2, 3 and 4 are contained in Item 1.



TRANSMITTER T1509

## CONTROL EQUIPMENT

A.M. Ref. No. 10L/37 Control Unit Type 310 When transmitter is fitted in a shore W/T  
or A.M. Ref. No. 10L/171 Control Unit Type 88 ) Stations, controlled by one channel only.

Patt. 66879 Control Unit for 617S (S.S.C.S.) when transmitter is fitted in a shore or R.N.A. station with Shore Station Control System (S.S.C.S.). A small modification is required to fit the transmitter at an R.N.A.S. equipped with KFC(X), KFC(Y) and KFC.

KFC(Y) uses Patt. 60723 Control Unit Des. 73  
Patt. 60724 Transformer Des. 3  
Patt. 56870A Panel, Oscillator  
Patt. 54847 Microphone Unit Des. 2

## PHYSICAL DATA

	<u>WIDTH</u>	<u>DEPTH</u>	<u>HEIGHT</u>	<u>WEIGHT</u>
Transmitter T1509	2' 5"	1' 10½"	4' 11"	800 lb.

## BRIEF DESCRIPTION

The transmitter circuit comprises an oscillator unit, a multiplier (acting as a buffer stage between 1.5 and 7.5 Mc/s), a power amplifier and a modulator driven by an amplifying unit. In the frequency range 1.5 and 2 Mc/s, the master oscillator operates as an electron-coupled oscillator; crystal control is used in the frequency range 2 to 20 Mc/s. Hand keying relays operate in the screen circuit of the M.O., the high speed keying relays are incorporated in the multiplier stage. Two parallel beam tetrodes in class C operation form the P.A. stage, anode and screen modulation being used when the set is switched to voice transmission. The modulator is driven by the amplifying unit which has an input impedance of 600 ohms. A preset control enables the correct level to be set to give 100% modulation. The output impedance of the transmitter is 40 to 80 ohms into co-axial feeder.

## POWER REQUIREMENTS AND CONSUMPTION

180 to 250 volts 50 c.p.s. single phase 1.0 kW.

## AERIAL OUTFIT

Aerial Outfit AFG. This is a quarter wave co-axial fed aerial which must be cut to the appropriate length for the particular operating frequency.

## HANDBOOK

Air Publication 2550B Vol. 1

## ESTABLISHMENT LIST

E.970.

## INSTALLATION SPECIFICATION

B.666.