## SECTION II

## OPERATING PROCEDURES

2-1. GENERAL

2-2. The following paragraphs describe the various panel controls of the Globe King Transmitter, Model 500. Tune-up and operating procedures are outlined following the description of controls. It is recommended that this section be studied thoroughly before any attempt is made to place the transmitter into operation.

2-3. DESCRIPTION OF CONTROLS

2-4. OSC. TUNING. Tunes Oscillator plate coil to the crystal frequency, or to double or triple the crystal frequency.

2-5. EXCITER BAND SWITCH. Selects proper amount of inductance in Oscillator and Buffer plate circuits.

2-6. BUFFER TUNING. Tunes Buffer plate to Oscillator frequency, or to selected harmonic.

2-7. METER SWITCH. Places Meter M1 into any one of the following four circuits; Osc. Plate, Buff. Plate, Final Grid or Final Screen.

2-8. FUNCTION SWITCH. Serves three purposes. Inserts high resistance into Power Amplifier screen grid circuit for tune-up, shorts modulation choke for CW operation, inserts modulation choke into Power Amplifier screen grid circuit for AM operation.

2-9. DRIVE CONTROL. Controls amount of RF from Buffer stage, thereby controlling Power Amplifier grid current and drive.

2-10. OUTPUT IMPEDANCE SELECTOR. Inserts added inductance, capacity, or both into output circuit for proper antenna match.

2-11. FINAL PLATE TUNING. Tunes plate circuit of the Power Amplifier stage to resonance. Must be re-tuned after any adjustment of either the Antenna Load Control or the Output Impedance Selector.

2-12. FINAL BAND SWITCH. Inserts proper amount of inductance into the pi network to resonate on selected band.

2-13. ANTENNA LOAD. Varies amount of coupling, and load, between Power Amplifier stage and antenna. Always start with this control in the "Min" position, this corresponds to maximum capacity of condenser in the circuit.

2-14. SSB-AM SWITCH. Changes class of operation of the Power Amplifier tube from class "C" to class "B". Also removes all low B+ voltages from Oscillator and Buffer stages for SSB operation of the Power Amplifier.

2-15. AUDIO GAIN. Controls level of modulation in AM operation.

2-16. FILAMENT SWITCH. (Modulator Section Panel). Applies AC power to the modulator section.