SECTION X

MALFUNCTIONS AND POSSIBLE CAUSES.

SYMPTOM	PROBABLE CAUSE
1. Main fuse blows when filament switch turned on.	1-1. Shorted capacitor C-55 or C-56. 1-2. Internally shorting tube or tubes.
2. Main fuse blows when high B plus turned on.	2-1. Shielding on M-2 or M-3 shorting to ground at meter connections. 2-2. Internally shorting tubes. 2-3. Insulators ST-1,ST-2,ST-3 or ST-4 punctured and shorting. 2-4. Shorted capacitors C-27, C-60 or C-53.
3. Buzzing relay or relays.	3-1. AC line voltage too low or too high. 3-2. Filings between armature and core of noisy relay.
4. No modulation.	4-1. Open coil on RLY-4. 4-2. Bad speech or modulator tubes.
5. Rough VFO note.	5-1. Weak 6AU6 tube. 5-2. Gassy 6CB6 tube.
6. Final screen current excessive or insufficient.	6-1. Weak 6156 tube. 6-2. Improper antenna loading. 6-3. Insufficient grid drive to final.
7. Exciter B plus goes on when filament switch turned on.	7-1. Shorted capacitor C-55 or C-56.
8. Excessive final plate current swing when modulating.	8-1. Excessive antenna reactance causing poor loading. 8-2. Capacity of the house wiring being exceeded. 8-3. FUNCTION switch on CW instead of PHONE position.
9. Push-to-talk provision inoperative.	9-1. RLY-3 requires adjustment or replacement. 9-2. Shorted capacitor C-40. 9-3. Defective rectifier SR-1.
10. Inoperative VFO.	10-1. Defective rectifier SR2 or SR3. 10-2. Defective 6AU6 or 6CB6 tube.