



Figure 5-3. 51J-4 Sensitivity Curve

screw is loosened must be noted, since the dial reading at this point is the reference for the 100-kc correction to be made.

Hold the vfo shaft rigid at this position and set the receiver dials to read 100 kc higher than the reference setting if zero beat occurred at 1.9 mc in steps (1) or (2), or 100-kc lower than the reference setting if zero beat occurred at 2.1 mc. Tighten screws in coupler and check setting. Additional fine adjustment can be made by moving the KILOCYCLE dial on the shaft or moving the fiducial line on the KILOCYCLE dial opening.

5.3.9. VARIABLE I-F ALIGNMENT AND RF ALIGNMENT BAND 2.

(a) Connect signal generator in series with a 47 ohm resistor and a 100 uuf capacitor to the ANTENNA terminal. Connect VTVM between DIODE LOAD test point and chassis. Switch receiver to band 2. Set dial to read 1.6 mc. Set ANT TRIM to midrange.

(b) Turn BFO on and set at 500 kc as in 5.3.6. Set signal generator to zero beat at 1.6 mc. Turn BFO off. Adjust output of signal generator to give some value of diode load voltage below 5 volts. Tune slugs marked 1.6 (in L116, L118 and L102) for a maximum indication while adjusting the signal generator to keep diode load voltage below 5 volts.

(c) Set dial to read 2.4 mc. Set generator to zero beat at 2.4 mc with BFO. Turn BFO off. Tune

adjustments marked 2.4 (trimmer capacitors C174, C180 and C104) for a maximum indication, keeping diode load voltage below 5 volts.

(d) Repeat tuning procedures at 1.6 and 2.4 mc until no further increase in output can be obtained.

NOTE

IN THE FOLLOWING RF ALIGNMENT PROCEDURES KEEP DIODE LOAD VOLTAGE BELOW 5 VOLTS AS IN PARAGRAPH 5.3.9. (b) ABOVE, AND BFO SET AT 500 KC AS IN PARAGRAPH 5.3.6.

5.3.10. VARIABLE I-F ALIGNMENT AND RF ALIGNMENT BAND 3.

(a) Connect the signal generator and VTVM as in step 5.3.9. (a). Set bandswitch to band 3.

(b) Set dial to read 2.6 mc. Set signal generator to zero beat at 2.6 mc with BFO. Turn BFO off. Adjust tuning cores marked 2.6 (in L117, L119 and L103) for a maximum indication.

(c) Set dial to read 3.4 mc. Set signal generator to zero beat at 3.4 mc with BFO. Turn BFO off. Adjust trimmer capacitors marked 3.4 (C176, C182 and C106) for a maximum indication.

(d) Repeat tuning procedures at 2.6 and 3.4 mc until no further increase in output can be obtained.