TMC SPECIFICATION			NO. S 1281
REV:			
COMPILED: GF	CHECKED: S.T.	APPD:	SHEET OF
TITLE:			

TEST PROCEDURE

COR 4B

TMC SPECIFICATION			NO. S 1281
REV:			
COMPILED: GF	CHECKED:	APPD:	SHEET 1 OF 4
TITLE: TEST PROCEDURE COR 4B			

EQUIPMENT REQUIRED:

1. Signal Generator (Boonton Model 82 or equivalent)
2. Simpson Meter (Model 260 or equivalent)
3. Earphones
4. Microphone
5. SSB Source (MMX or equivalent)
6. Spectrum Analyzer
7. V.U. Meter

1. Turn power on CDN and in rear of system check power distribution on TB101 - Term. 1 Ground - Term. 2 (+12 VDC) - Term. 3 (-12 VDC) - Term. 4 (+ 12 VDC) - Term. 5 Ground - Term 6 (-12 VDC) - Term 7 Ground

2. Connect output of Signal Generator to antenna input of HFD. Adjust Generator to frequency of receiver. Adjust output of Generator to 15 microvolts output. Plug earphones into sideband monitor on STR 5. Turn threshold control on CDN fully counterclockwise. Turn power on STR and check for audible tone in earphones. Adjust squelch control pot behind door in STR 5 so that a switch closure appears between Terminals 2 and 3 on TB102 in rear of system. When Generator output is dropped to about 5 microvolts switch closure should open; if not readjust squelch pot.

3. Turn Signal Generator back up to 15 microvolts output and modulate the signal. Plug earphones into AM monitor on STR and an audible tone should be heard. Adjust threshold control on CDN so that a switch closure appears between Terminals 1 and 2 of TB102. It may be necessary to adjust attenuator pot R1003 in rear of CDN to center threshold control.

4-A. Connect an exciter to a spectrum analyzer set in 6A3 mode (AM) and adjust exciter for a 90% modulation on voice peaks.

B. Switch to USB position and check for proper A3J operation (no carrier). Do not readjust MIC level control.

C. Reinsert carrier while observing analyzer and set for proper A3H (full carrier) operation. Note position of carrier reinsert control for future reference, and suppress carrier fully.

5-A. Connect exciter output to HFD antenna input. Use suitable pad between exciter and receiver. Connect 600 ohm load across Terminals 5 and 7 of TB102 so that audio output may be monitored with the V.U. meter. Insert headphones into sideband monitor on STR. Enable exciter in a push to talk sideband mode. When speaking into microphone a clear voice reception must be heard. Adjust clarifier on STR if necessary. A switch closure between Terminals 2 and 3 of TB102 should appear and audio observed on the V.U. meter. Meter must read 0 dbm on speech peaks, if not, readjust R18 on sideband board in STR. It may also be necessary to adjust threshold control on CDN to maintain sideband mode of operation. When speaking stops, switch closure between Term. 2 and 3 of TB102 should open after a short pause.

B. Reinsert carrier for A3H operation to level previously determined. Depress push to talk and CDN must activate without readjusting threshold control. Insert headphones into AM monitor on STR and listen for clear voice reception when speaking into microphone. Observe audio output on V.U. meter. Voice peaks must read "0" dbm on meter. If not, readjust R18 on AM board in STR.

C. When in 6A3 mode (AM) and speaking into microphone a switch closure between Terminals 1 and 2 of TB102 should appear, a clear voice reception should be heard in earphones and audio output should be observed on V.U. meter. Switch closure should break when speaking stops.

6. Test Osc. Check:

A- 1. Depress sideband osc. switch on RTD. An audible tone should be heard with earphones in sideband monitor of STR.

2. A switch closure should appear across Terminals 2 and 3 of TB102.

3. Audio output should be observed on the V.U. meter.

B- 1. Depress AM osc. switch on RTD. An audible tone should be heard with earphones in AM monitor of STR.

2. A switch closure should appear across Terminals 1 and 2 of TB102.

3. Audio output should be observed on the V.U. meter.

7. Repeat tests for each receive channel.

TEST DATA SHEET

CHANNEL _____

1. Check voltage levels on TB101

   Terminal
   1. Ground _____
   2. +12 VDC _____
   3. Approx. 20 VDC Unloaded _____
   4. +12 VDC _____
   5. Ground _____
   6. -12 VDC _____
   7. Ground _____

2. Adjust STR squelch level _____

3. Adjust CDN threshold control _____

4. Check proper A3J reception _____
   SSB Indicator _____
5. Check proper A3H reception _____
   AM Indicator _____
6. Check proper 6A3 reception _____
   AM Indicator _____
7. Check Test Osc.
   USB Tone Output _____
   AM Tone Output _____

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