TMC SPECIFICATION			NO. S 953
REV: 0 A B C			
COMPILED: REM	CHECKED: [illegible]	APPD: [illegible] 5/5/65	SHEET 1 OF 18
TITLE:			

Typed by vab. 5/3/65

COMPLETE PRODUCTION TEST

INSTRUCTIONS FOR

TMC MODEL SBE-2A

TRANSMITTING MODE SELECTOR

TMC SPECIFICATION

NO. S 953

REV: 0 A B C

COMPILED: REM | CHECKED: | APPD: | SHEET 2 OF 18

TITLE: Production Test of Model SBE-2A

Typed by Vab. 5/3/65

TEST EQUIPMENT REQUIRED

Hewlett Packard Model 606A		RF Signal Gen.
Hewlett Packard Model 524-C		Frequency Counter
Ballentine " 314		A. C. Voltmeter
Hewlett Packard " 410B		VTVM
Hewlett Packard " 200CD		Audio Generator
TMC " PTE-3		Spectrum Analyzer
Ballantine " 314		VTVM
Crystal	TMC Type CR-27/U	2.000 MC
Crystal	TMC Type CR-27/U	4.000 MC
Crystal	TMC Type CR-27/U	2.270 MC
Crystal	TMC Type CR-27/U	4.270 MC

One 70 ohm 2-watt resistor.
One 1 megohm 1/2 watt resistor.
One 5 pf capacitor.

TITLE: Production Test of Model SBE-2A

Typed by Vab. 5/3/65

A. PRELIMINARY:

1. Inspect the unit for mechanical imperfections, proper type and placement of filters, vacuum tubes/ and obvious wiring errors. Attach jumper to terminals 2 & 3 of E-101.

2. Check the oven heaters by measuring the resistance between pins D and E of J109. For 115 V AC connections this value should be 300 ± 10%; for 230 V AC connections 600 ± 10%.

3. Check ALDC circuity as follows: From J113 to ground (chassis) reading should be 470 K ± 10%; from J113 to pins 2 and 7 of V113 reading should be 23K ± 10% in each case.

4. Check to insure that the RF and MF dial calibration marks line up with the Red line at the counter clockwise dial stop.

5. Connect the 70Ω load to the RF Output connector J-103.

6. Place test crystals is the oven as follows:

POSITION	FREQUENCY
1	2.0 mc
2	4.0 mc
3	2.27 mc
4	4.27 mc

7. Connect the unit to the power supply and apply AC power. The Oven and Dial lamps should light up. After a brief warmup period, when oven lamp commences to cycle ON and OFF, proceed with the tests below.

8. With the Meter Switch in the CAL position, adjust the CAL potentiometer for Zero reading of Meter M-101.

B. 17KC OSCILLATOR CHECK:

1. With the VTVM at Pin 4 of T105, measure Output Voltage. The reading should be between .5 and 2.4 volts.

NOTE: Indicate completion and acceptance of portion(s) of this test preceeded by (*) by recording required observed value or by check ( ) mark as required on attached test Data Sheets.

2. With the Frequency Counter check the frequency of the 17 KC Oscillator at Pin 4 of T-105. Should read 17 KC ± 8.5 cps at 70°c.

*C. 287 KC OSCILLATOR CHECK:

1. With the VTVM at Pin 8 of Z103 or at the arm of R113, measure the Output Voltage. The reading should be between .7 and 1.5 volts.

2. Remove the VTVM and connect the frequency counter to Pin 8 of Z103 or the arm of R113. Adjust C-120 as necessary to bring 287 Kc ± 57.4 cps at 70° c.

*D. MODULATOR TESTS:

1. LSB Carrier Balance

a. LSB, USB Switches is OFF or minimun position.

b. Carrier insert fully CCW, minimun.

c. Connect VTVM across output of Z101 (LSB) filter. (Pin 5 to ground).

d. Adjust R110 for minimun indication on VTVM.

e. Repeat above test for Z102 (USB) filter and R-112.

*2. 287Kc Modulator and 270 Kc Amplifier:

a. LSB-USB Controls off or minimun.

b. Set R113 Potentiometer and C259 to MID position.

c. Connect RF signal generator thru a 5 pf capacitor to Pin 7 of V-109.

d. Short across primary of T-108.

e. Connect AC VTVM to secondary of T-108.

f. Set RF signal generator to 270KC exactly. Use a sufficient level of signal to observe a reading on the AC VTVM.

g. Peak top slug of T-108.

h. Remove short from primary of T-108.

i. Dip bottom slug of T-108.

j. Short across secondary of T-107.

k. Connect AC VTVM to primary of T-107.

l. Peak top slug of T-107.

m. Remove short from secondary of T-107.

n. Dip bottom slug of T-107.

o. Carrier insert minimun, CCW.

p. Connect VTVM to pin 7 of V109A and balance out 287 KC completely with R113 and C259.

q. Lock nuts.

*E. AUDIO & SIDEBAND REVERSAL TEST.

*1. Microphone Input.

a. Connect the AF generator unbalanced output in series with 1 megohm resistor to Pin 1 of Mike Input jack and thence to ground, Pin 2.

b. Set the USB and LSB Selector switches to OFF and Carrier Insert to minimun.

c. Set RF Bandswitch to any position except 2-4 mcs.

d. Turn LSB Selector switch to Mike position. With the AF generator set to 1000 cps and and output of .078 volts, adjust the LSB Gain control for a deflection of 100% on LSB meter position. This point on the gain control should be reached before its maximum gain position.

e. Connect the VTVM across the Output terminals of USB filter Z-102 and on the 0-1 volt scale. Note output indication and turn RF Bandswitch to the 2-4 mcs. band the output indication should now be transferred from the USB filter Z-102 to the output of the LSB filter Z-101.

*2. CHANNEL 1 INPUT.

a. Connect the AF generator balanced output to terminals 6 and 8 of E-101 with a twisted shielded pair and shield connected to terminal 7 thence by jumper to terminal 5, ground.

NOTE: Indicate completion and acceptance of portion(s) of this test preceeded by (*) by r cording requir d observ d valu or by Check ( ) mark as required on attached test Data Sheets.

b. Set USB and LSB Selector switches to OFF and Carrier Insert to minimum.

c. Set RF Bandswitch to 2.4 mcs.

d. Turn LSB Selector switch to Channel 1 position. With The AF generator set to 1000 cps and an output of .05 volt, as measured across one side of the AF generator balanced output and ground. Adjust the LSB gain control for a deflection of 100% on the LSB meter position. This point on the gain control should be reached before its maximum gain position.

e. Connect the VTVM across the Output terminals of LSB filter Z101 on the 0-1 volt scale. Note output indication and turn RF Bandswitch to the 2-4 mcs band the output indication should now be transferred from the LSB filter Z101 to the output of the USB Filter Z102.

*3. CHANNEL 2 INPUT.

a. Connect the AF generator balanced output to terminals 10 and 12 of E-101 with a twisted sheilded pair and shield connected to terminal 11 thence by jumper to terminal 9, ground.

b. Repeat the tests for paragraphs b thur e of Channel 1 Input above, with the exception that USB should be substituted for LSB and vice versa, Z101 for Z102 and vice versa. Requirements remain as for Channel 1 Input above.

*F. VOX TESTS:

*1. Gain

a. Set VOX gain R-140 to maximum.

b. All other gain controls to minimum.

c. Increase Carrier Insertion R-106 until the Exciter Lamp and Relay K-101 should deenergize as indicated by infinite resistance from terminal 4 of E101 to ground.

d. With the VTVM on Pin 2 of V110 a reading of .17 to .5 volt should be obtained.

e. With the Carrier Insertion R-106 reduced to minimum, the

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Exciter Lamp and Relay K-101 should deenergize as indicated by ∞ resistance from terminal 4 of E101 to ground.

F. Set the Transmitter switch S-104 to ON, the resistance reading from terminal 4 to ground of K-101 should again be ZERO.

*2. SQUELCH TEST AND PUSH TO TALK:

a. Set VOX gain R-104 to maximum.

b. All other gain controls to minimum.

c. Increase Carrier Insertion R-106 until Exciter Lamp lights.

d. Place Squelch Gain R-129 to maximum.

e. Connect AF generator unbalanced output to Terminals 13 and 14 of E-101. With the generator set to 1000 cps adjust its output until the Exciter Lamp extinguishes.

f. With the VTVM measure the voltage at Pin 9 of V110 it should be between .5 to 1.0 volt.

g. To simulate closing of the Push to Talk circuit short terminal 1 of E-101 to ground. The Exciter Lamp should light and Relay K-101 should operate. Repeat for Pin 3 J-101.

h. Return VOX gain and Squelch controls to minimum.

*G. M.F. ALIGNMENT-INJECTION-CARRIER BALANCE

*1. Mid frequency Alignment.

a. At the mixer grid of V113 there may appear two frequencies a 270Kc frequency (carrier inserted) and a VMO injection frequency. At the band extremes the following table applies.

XTAL OR VMO	DIAL READING	LF	RESULTING FREQ.
2000 Kc	2.0 mc	270 Kc	1.73 Mc
4000 Kc	4.0 mc	270 Kc	3.73 Mc

NOTE: Indicate completion and acceptance of portion(s) of this test preceeded by (*) by recording required observed value or by check ( ) mark as recorded on attached test Data Sheets.

b. The MID FREQUENCY is aligned so that the proper product is chosen when the dial is set to the VMO or XTAL frequency, that is, when a 2000 Kc xtal is injected, the MF dial is set to 2.0 Mc but the actual frequency is 1.73 Mc which is the difference between the 2000 Kc xtal and the 270 KC LF. With this in mind, preliminary alignment may be accomplished by using the 2000 Kc and 4000 Kc xtals (or VMO).

c. Before aligning the MF, see that the tuning capacitors are in full mesh when the dial is set to the marker on the MF dial.

d. Remove P107 from J110 on Z107. Connect VTVM to Pin 2 of Z107. Unbalanced injection with R130, MF Balance Control. Turn RF output control CW to obtain a reading on VTVM.

e. Select xtal position 1 (2000 Kc). Set MF dial to 2.27 Mc. Tune T-109 and T110 for maximum output.

f. Select xtal position 2 (4000 Kc). Set MF dial to 4.27 Mc. Tune trimmers C140 and C141 for maximum output.

g. This preliminary alignment will ensure subsequent selection of the proper mixer product on the MF dial.

*2. CARRIER BALANCE.

a. Select xtal position 1 (2000 Kc)

b. MF dial to 2.27 Mc.

c. Carrier Insert CCW, adjust R130 for minimum carrier as indicated by observing Meter in MF position. Lock R130. Reconnect P107 to J110.

d. Correct MF alignment will be indicated when a signal indication is noted on the MF dial at 2.0 mc and 2.54 Mc with carrier inserted and Xtal Position 1.

e. Insert full carrier. Select xtal position 1 (2000 Kc) Set MF dial to 2.0 Mc. Tune T109 and T110 for maximum output. Select xtal position 2 (4000 Kc). Set MF dial to 4.0 Mc. Tune C140 and C141 for maximum output in each case reduce the carrier to insire that proper mixer product has been selected. Repeat until band is tracked. Lock slugs with spintite tools.

f. Check dial tracking for position 3 (2.27 mc) and position 4 (4.27 mc).

NOTE: Indicate completion and acceptance for portion(s) of this test preceeded by ( ) by recording required observed value or by check ( ) mark as required on attached t st Data Sheet.

*3. CRYSTAL AND VMO INJECTION CHECK.

a. Connect the VOX-5 output from the PTE analyzer to VMO input J104. Maintain a .1 on VOX-5 output meter level for all subsequent tests.

*b. Connect the RF voltmeter at the junction of C163 and C164 and measure the voltages under conditiond indicated below:

S-107 POSITION	FREQ.	MIN. VOLTAGE LIMIT
1	2.0 mc	1.5 V.
2	4.0 mc	.6 V.
VMO	2.0 mc	1.5 V.
VMO	4.0 mc	.6 V.

*H. R. F. CIRCUITS ALIGNMENT

*1. HF Oscillator and Multiplier Alignment.

a. Connect VTVM to rear of J-108.

b. All controls except "Power On" and "Exciter On" switches in OFF position or minimum.

c. Adjust L101 through L114 for maximum indication on RF VTVM at the corresponding "Injection" Frequency Shown below: Output requirement is 2 Volts.

d. Remove VTVM and connect frequency Counter to J-108.

e. Adjust C-233 through C-240 for the correct frequency as indicated by the frequency as indicated by the Frequency Counter for the frequencies shown in "Injection" Column below.

f. Repeat above until frequency and output voltages are correct.

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TMC SPECIFICATION NO. S 953 C

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TITLE: Production Test of Model SBE-2A

APPROVED

BAND POS.	MC XTAL F. (mc)	INJECT F. (mc)	ADJUSTMENTS	REMARKS
4	8	8	C233 L101	NOTE
5	10	10	C234 L102	
6	12	12	C235 L103	When adjusting coil slugs L101 thru L114 turn slug all th way out and tune slug in toward first peak until 2-volt reading is obtained. Stop there.
7	14	14	C236 L104	
8	8	16	L105	
9	18	18	C237 L106	
10	10	20	L107	
11	11	22	C238 L108	
12	12	24	L109	
13	13	26	C239 L110	
14	14	28	L111	
15	10	30	L112	
16	8	32	L113	
17	17	34	C240 L114	

2. Preliminary RF Amplifier Alignment:

   a. Before alignment, check full meshing of capacitors C-181 against dial marking at low frequency end of dial.

   b. Channel 1 and 2 selector switches OFF.

   c. XTAL Switch Position 3 (2.270 mc), Carrier Insert set for maximum, CW.

   d. MF Tuning tuned at 2.270 mc. Meter in MF Position.

   e. RF Output terminated in 70 Ω load.

   f. RF Voltmeter across 70 Ω load.

   g. In subsequent RF alignment tests the drive should be sufficiently low to preclude broad response meter indications.

3. 2-4 MC Band Alignment:

   a. Output Tuning Bandswitch to 2-4 Mc Band.

   b. Band MC Switch to Band 0. MF Tuning to 2.27 mc. Meter in MF Position.

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c. RF Tuning tuned to 2 MC, RF Meter switch in RF output position.

d. Tune T-116 and T-120 for maximum output.

e. XTAL position 4 (4.270 mc), carrier inserted and MF Tuning tuned to 4.270 mc on MF Meter position.

f. RF Tuning tuned to 4.0 mc. Meter in RF position.

g. Peak C-191 and C-179 for maximum output.

h. Repeat above steps to insure proper band alignment with reduced drive to insure sharp tuning peaks.

4. 4-8 MC Band.

a. Output Tuning Bandswitch to 4-8 MC Band.

b. Tune MF to 4.270 mc, Output Tuning tuned to 4 mc., RF Meter Switch in RF Output position.

c. Tune T-113, T-117, and T-121 for maximum output.

d. Carrier insert CCW, minimum carrier.

e. MF XTAL Switch in VMO position (remains in this position for subsequent RF band alignments).

f. Band MC Switch in Band 4. (8MC)

g. Output tuning tuned to 8 MC.

h. Peak capacitors C-203, C-192 and C-180 for maximum output.

i. Repeat above procedure to insure proper band alignment with reduced drive to insure sharp tuning peaks.

5. 8-16 MC Band.

a. Output Tuning Bandswitch to 8-16 MC Band.

b. Output Tuning tuned to 8 MC. Meter switch in RF position.

NOTE: Indicate completion and acceptance of portion(s) of this test preceded by (*) by recording required observed value or by check ( ) mark as required on attached test Data Sheets.

c. Band MC Switch in Band 4 (8 MC).

d. Tune T-115, T-119 and T-122 for maximum output.

e. Band MC Switch to band 8 (16 MC)

f. Output Tuning tuned to 16 MC. Meter switch in RF position.

g. Peak capacitors C-202, C-190 and C-178 for maximum output.

h. Repeat above procedure to insure proper band alignment with reduced drive to insure sharp tuning peaks.

6. 16-32 MC Band.

a. Output Tuning Bandswitch to 16-32 Band.

b. Output Tuning tuned to 16 MC. Meter switch in RF Position.

c. Band MC Switch in Band 8 (16MC)

d. Tune T-114, T-118 and T-112 for maximum output.

e. Band MC Switch to Band 16 (32MC)

f. Output Tuning tuned to 32 MC, and RF Meter Switch to RF Output position.

g. Peak capacitors C-201, C-189 and C-177 for maximum output.

h. Repeat above procedure to insure proper band alignment with reduced drive to insure sharp tuning peaks.

*7. Output Voltages and HF Carrier Balance.

a. Carrier insert CCW, minimum.

b. Band MC Switch to Position 13, RF tuning tuned to 26 MC.

c. RF Output Control set for mid scale reading on meter in RF position.

NOTE: Indicate completion and acceptanc of portion(s) of this test preceeded by (*) by recording required obs rved value or by check ( ) mark as required on attached test Data Sh ets.

d. Alternately tune control "A" and "B" of Z-107 for minimum indication on RF output meter.

e. Band MC switch to band 0.

f. Set xtal selector switch to position 3 (2.270 Mc).

g. With carrier inserted, tune MF to 2.270 Mc as indicated on Meter in MF Position.

h. Audio Generator connected to terminals 6-8 of E-101, Level of .078 volts (20DBM) at 1000 cps, "Carrier Insert", "LSB" and "USB" GAIN controls fully CCW.

i. Set RF bandswitch to 2-4 mc range. "USB" to CHANNEL 1 GAIN set for 100% in "MF" meter position.

j. Tune Output amplifier for peak at 2 mc as indicated on A-C VTVM.

k. Increase RF output control to maximum clockwise position. Check for 4.2V minimum across 70 ohm load on A-C VTVM.

l. The above Output Voltage test procedure must be repeated in two (2) megacycles increments from 2 through 32 Mc, each time checking that a minimum 4.2 volt RF output is obtained across the 70 load.

m. When performing above tests, insure dial calibration is correct.

I. OVERALL TESTS & REQUIREMENTS

*1. Power Output & Signal Distortion Test.

a. This test will be made on one frequency selected at random in each one of the four RF bands. Note sheet 18 of 18, Data Sheet.

b. Connect the two AF test tones from the PTE analyzer with a twisted shielded pair to Channel 1 input, terminals 6 and 8 of E-101 with the shield connected to terminals 7 and 5. Connect the analyzer RF input to the Monitor Jack J102.

c. With the USB selector set to Channel 1 and USB gain set to about mid-scale, tune the unit to the selected output frequency for an output of 4.13 RF volts across the 70 ohm load.

NOTE: Indicate completion and acceptance of portions(s) of this test preceeded by ( ) by recording required observed value or by check (✓) mark as required on attached Test Data Sheets.

d. Setup and adjust PTE as follows to measure th S/D in the USB-

(a) Gain fully clockwise.

(b) Amplitude scale switch to LOG.

(c) CAL OSC to OFF.

e. IF attenuator to 20 db position.

f. Sweep selector to 14 Kc.

g. AFC to OFF.

h. The VOX-5 in the PTE should be adjusted for a frequency 500 kc higher than the signal frequency to be displayed. The two tone test signal should be set to the center of the analyzer.

i. Adjust input attenuator switches so that two tone test signal peaks are as close as possible to the 0 line or slightly above. With the gain control set these peaks to the 0 line on the analyzer.

j. Place IF attenuator switch to 0 position thus x-panding the 0 to 40 db scale to 0 to 60. Note the odd order distortion products.

Requirement: The S/D must be at least 45 db below either tone of a standard two tone test for 25 watt PEP output as view d on a PTE panalyzer.

*2. Carrier Suppression.

a. This test will be performed on the same frequencies as the test in paragraph 1 above and with the same general PTE setup.

b. Turn USB and LSB switches to OFF, no AF input.

c. Tune the unit to the desired frequency with carrier insert drive for 100% on MF Meter. Carrier presentation in center of analyzer and peak adjusted to the 0 line with IF 20 db attenuator IN. Set RF output for .25 watt PEP output (4.2 VRMS).

NOTE: Indicate completion and acceptanc of portion(s) of this test proc ed d by (*) by recording r quired observ d valu or by ch ck ( ) mark as requir d on attach d test Data She ts.

*d. Set IF attenuator switch to 0 and place carrier insert fully CCW, carrier drive at minimum. Note level of the remaining carrier on analyzer.

e. Adjust R109 and C119 of Z106 for maximum carrier suppression.

Requirement: Maximum carrier suppression must b at least 55 db below the test signal at .25 Watt PEP.

*3. Unwanted Sideband Rejection.

a. This test will be performed on the same frequencies as the test in Paragraph 1 above and with the same general PTE setup.

b. Connect 500 ~ AF to terminals 6 & 8 of E-101, USB Channel 1 adjusted for -6 db and unit tuned to d - sired frequency for .25 watt PEP. PTE sweep at 14 Kc adjust presentation of 500 ~ tone signal to 0 lin on analyzer with IF 20 db attenuator in.

c. Set LSB to Channel 1. This will provide a dual 500 tone signal presentation. Note position of the LSB 500 ~ tone signal and then place LSB to OFF.

*d. Set IF 20 db attenuator to 0 and read the level of the 500 ~ tone appearing as an unwanted signal in the LSB.

*e. Repeat the above test for the LSB.

Requirement: Unwanted Sideband rejection shall be at least 60 db below 500 ~ tone t st signal for .25 Watt PEP, both USB and LSB.

*4. 2nd Harmonic Suppression.

a. This test will be performed on a frequency in th 4-8 mc band.

b. Set both LSB and USB OFF and tune the unit with carrier drive to 100% on MF Meter, at the 2nd Harmonic of the fundamental frequency to be m asured. (Example:-If desired frequency to be measured is 4

NOTE: Indicate compl tion and acceptanc of portion(s) of this test preceeded by (*) by r cording required obs rved value or by ch ck( ) mark as required on attached t st Data Sheets.

MC, the unit would be tuned to 8 MC). Set RF output to obtain .25 watt PEP.

c. Adjust presentation on PTE with IF 20 db attenuator IN and signal peak on 0 line. Leave all PTE controls at their present settings.

d. Tune the unit to the fundamental frequency at th same output as above.

*e. Set the IF 20 db attenuator to 0. The 2nd harmonic component will now be presented on the analyzer. Note the level of this 2nd harmonic signal.

Requirement: The 2nd harmonic shall be at least 40 db below the level of the fundamental frequency at.25 Watt PEP output.

*5. Overall Frequency Response Test.

a. Setup AF generator to approximately the center frequency of the bandpass spectrum (1650) at .05V output connected to terminals 6 and 8 of E-101., with shielded twisted pair, shield connected to 7 and 5. Monitor AF Generator output with VTVM. Output should be constant.

b. With MF XTAL Switch in position 4, tune unit to 4 MC output frequency with USB OFF and carrier ins rt at minimum.

c. Connect VTVM across the 70 Ω load. (Use VTVM with DB scale)

d. Advance LSB gain control to a mid-scale reading and adjust RF Output for center scale reading on VTVM.

e. Maintaining constant output from the AF generator vary the frequency from 350 to 3300 noting the maximum and minimum RF output readings across the 70 Ω load, in DB.

f. Repeat above test for the USB with AF generator connected to terminals 10 and 12 on E-101 with the ground shield tied to terminals 11 and 14.

Requirement: The difference between the maximum and minimum readings in step 5 above shall not exceed 3 db for LSB and USB.

NOTE: Indicate compl tion and acceptance of portion (s) of this test preceeded by (*) by recording required observed value or by check ( ) mark as required on attached test Data Sheets.

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1. (A-1 thru 8) Preliminary check & tests completed _____ (✓)

2. (B) 17 Kc OSC. Checks
   (1) Output Voltage _____ V.
   (2) Frequency _____ Kc ± _____ ~

3. (C) 287 Kc OSC. Check
   (1) Output Voltage _____ V.
   (2) Frequency _____ Kc ± _____ ~

4. (D) Modulator Tests.
   (1) LSB/USB Bal. completed _____ (✓)
   (2) 287 Kc OSC. and 270 Kc amplifier adjustments completed _____ (✓)

5. (E) Audio & Sideband Reversal
   (1) Microphone input completed _____ (✓)
   (2) Channel 1 input completed _____ (✓)
   (3) Channel 2 input completed _____ (✓)

6. (F) VOX Tests.
   (1) Gain & K101 relay operation checked _____ (✓)
   (2) Squelch & Push to Talk checked _____ (✓)

7. (G) MF ALIGNMENT
   (1a thru g) Alignment Completed _____ (✓)
   (2) Carrier Balance completed (a thru e) _____ (✓)
   (3b) Crystal Injection at 2MC _____ V. at 4MC _____ V.
   VMO Injection at 2MC _____ V. at 4MC _____ V.

8. (H) RF Circuits Alignment
   (1) HF OSC and Multiplier Alignment completed _____ (✓)
   (7) Output Voltages across 70Ω load for frequencies obtained as below:

2 MC _____ V.	14 MC _____ V.	26 MC _____ V.
4 MC _____ V.	16 MC _____ V.	28 MC _____ V.
6 MC _____ V.	18 MC _____ V.	30 MC _____ V.
8 MC _____ V.	20 MC _____ V.	32 MC _____ V.
10 MC _____ V.	22 MC _____ V.	
12 MC _____ V.	24 MC _____ V.	

REVISION SHEET	THE TECHNICAL MATERIEL CORP. MAMARONECK NEW YORK	S-953 LIST NO.

DATE	REV.	SHEET	EMN #	DESCRIPTION	APP.
5/5/65		1 of	18	O=ORIGINAL RELEASE FOR PRODUCTION.	
6-18-65	A	→	14093	SH 4,5,6,8,10,13,14,15,16,18 PER EMN	K
8-26-65	B	13	14736	REVISED PER EMN	L.G.
44/1/66	C	----	16015	Revised shts. 2,4,5,8,12,14,15,16,18 per EMN	~~K~~ 8