ALIGNEMENT AND TEST PROCEDURE

FOR AN/URA-24/25 MODIFICATION KIT
(P/O S-394)
SPECIFICATION S-430

EQUIPMENT NEEDED:

1. Complete AN/URA-24/25 System
2. 1000 Watt Output Transmitter
3. R.F. Vacuum Tube Volt Meter
4. 35 ft. Whip Antenna or 1000 Watt Dummy Load

CHECKED _____ APPROVED _____

TYPED JUNE 16, 1959

1.2.12 rated for 1000 watts output, tune the transmitter you are using for maximum output.

1.2.13 Turn R2 counterclockwise until K3 trips to cut transmitter power. Proceed as in step 1.2.9 above until R2 is properly adjusted.

1.2.14 When R2 is correctly set, carefully tighten its lock nut.

1.2.15 Press the RESET button to reset K3 and reactivate the transmitter.

1.2.16 Reduce transmitter power to 1000 watts. If transmitter available is not rated for 1000 watts, leave its output at maximum.

1.2.17 Using the REACTANCE switch on the Control-Indicator, vary the inductance until the VSWR meter indicates a standing wave ratio of 4 to 1.

1.2.18 Turn R4 counterclockwise until K3 trips to cut transmitter power. Proceed as in step 1.2.9 above until R4 is properly adjusted.

1.2.19 When R4 is properly set, carefully tighten its lock nut.

1.2.20 The modified AN/URA-24/25 is now ready for operation.

DATE 6-10-59 SH. 1 OF 9 COMPILED BY G.F.	TMC SPECIFICATION NO. S 430	
	TITLE: ALIGNMENT & TEST PROCEDURE FOR THE AN/URA-24/25	JOB.
APPROVED	MODIFICATION KIT	

1. ALIGNMENT AND TEST PROCEDURE:

1.1 EQUIPMENT REQUIRED

A. Complete AN/URA-24/25 system

B. 1000 Watt Output Transmitter

C. R.F. Vacuum Tube Volt Meter

D. 35 ft. Whip Antenna or 1000 Watt Dummy Load

E.

1.2.1 Make connections as shown in Specification S-369. (If 1000 watt dummy load is available, use it in place of antenna.)

1.2.2 Turn POWER switch on the Control Indicator to the X1 position.

1.2.3 Set the TUNE/OPERATE switch on the Control-Indicator to TUNE position.

1.2.4 Allow 2 minutes for tube warm-up.

1.2.5 Using the VTVM, check for 75 volts on pin 1 or 5 of V1 of the Kit. If installation has been properly made, this voltage will appear at these pins. If not, check connection of the single red wire to Pin 6 of T101 of the Control-Indicator.

1.2.6 Turn R1, R2 and R4 on the Kit chassis fully clockwise for maximum resistance.

1.2.7 Adjust transmitter for 100 watts output. Use a frequency which will allow transmitter to be tuned for a standing wave ratio of unity.

1.2.8 Turn R1 counterclockwise until Latching relay K3 of the Kit trips to cut transmitter power.

1.2.9 Reduce transmitter power. Press RESET button on the Control Indicator to reset K3. Increase transmitter power slowly until the power required for this step is reached. When 100 watts is reached, K3 will again trip to cut the transmitter off. If this does not occur, readjustment of R1 is necessary. Repeat the above until R1 is correctly adjusted.

1.2.10 When R1 is correctly set, carefully tighten its lock nut.

1.2.11 Turn POWER switch on th Control-Indicator to the X10 position. Turn TUNE/OPERATE switch to OPERATE position.

1.2.12 Adjust transmitter output to 1200 watts. You will not that Forward Power indication of the VSWR meter will exceed full scale by approximately 1/4". If the transmitter available is not