MAINTENANCE STANDARDS BOOK

for

RADIO TRANSMITTING AND RECEIVING EQUIPMENT TCS-4 THRU 15

SERIAL NO._____OF MODEL_____

RCA SERVICE COMPANY

GOVERNMENT SERVICE DEPARTMENT

CAMDEN, NEW JERSEY

DEPARTMENT OF THE NAVY
BUREAU OF SHIPS

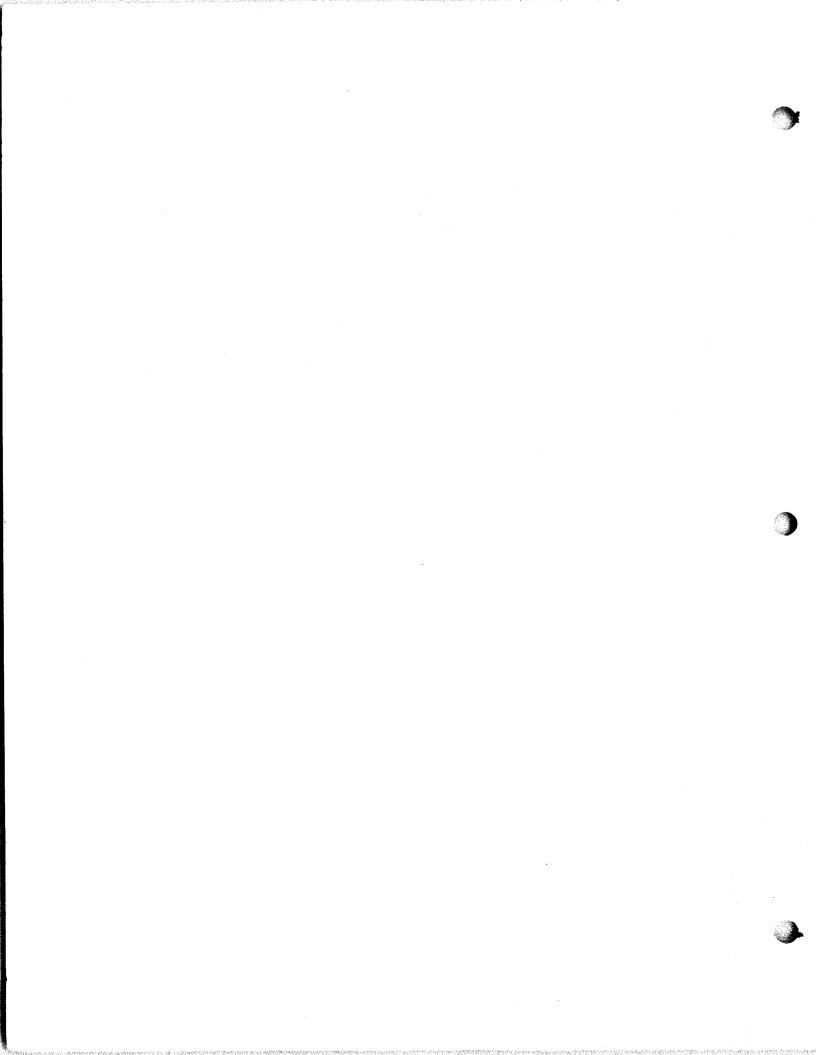
Radio Transmitting and Receiving Equipment TCS-4 thru 15 NAVSHIPS 900269, 42

Model			
Serial No.			
Installed in	l		
	(Ship	or	Station)

After Radio Transmitting and Receiving Equipment TCS has been brought up to optimum performance and the reference standards accomplished, record in this summary sheet the standards which have been entered in this book. Forward this sheet to Chief, Bureau of Ships, Navy Department, Washington 25, D.C., Attn: Code 975.

Step No.	Reference Standard	Step No.	Reference Standard	Step No.	Reference Standard
A1	VDC	C1	UV	C2	KC_
A2	VDC		UV	C3	GO/NO-GO
B1	WATTS		UV	C4	VAC
	WATTS			C5	VAC
B2	MA				VAC
					VAC

List all field changes which have been accomplished on this equipment						
	Signature					
	Title-Position					
	Date					



"APPROVED MANUSCRIPT" MAINTENANCE STANDARDS BOOK

for

RADIO TRANSMITTING AND RECEIVING EQUIPMENT TCS-4 THRU 15

SER	IAL	NO.	
OF	MO	DEL	

RCA SERVICE COMPANY

GOVERNMENT SERVICE DEPARTMENT

CAMDEN, NEW JERSEY

DEPARTMENT OF THE NAVY
BUREAU OF SHIPS



Contract: NObsr 71851

Approved by BuShips: 11 April 1958

LIST OF EFFECTIVE PAGES

PAGE NUMBER	CHANGE IN EFFECT	PAGE NUMBER	CHANGE IN EFFECT
Title Page	Original		
ii to xi	Original		
1-0 to 1-13	Original		
2-0 to 2-11	Original		



DEPARTMENT OF THE NAVY BUREAU OF SHIPS WASHINGTON 25, D. C.

in REPLY REFER TO Code 993-100

From: Chief, Bureau of Ships

To: All Activities concerned with the Operation, and

Maintenance of the Subject Equipment

Subj: Maintenance Standards Book for Radio Transmitting

and Receiving Equipment TCS-4 through 15, NAVSHIPS

900,269.42

1. This is the Maintenance Standards Book for the subject equipment and is in effect upon receipt. This publication applies only to the equipment, the serial number and designation of which appear on the cover and title page.

- 2. When superseded by a later edition, this publication shall be destroyed.
- 3. Extracts from this publication may be made to facilitate the preparation of other Department of Defense publications.
- 4. Errors found in this publication (other than obvious typographical errors), which have not been corrected by means of Temporary Corrections or Permanent Changes, should be reported. Such report should include the complete title of the publication and the publication number (short title); identify the page and line or figure and location of the error; describe the error or indicate what change should be made; and be forwarded to the Electronics Publications Section of the Bureau of Ships.
- 5. All Navy requests for NAVSHIPS electronics publications should be directed to the nearest Bureau of Supplies and Accounts Forms and Publications Supply Point. When changes or revised books are distributed, notice will be included in the Electronics Information Bulletin, NAVSHIPS 900,022, and in the Index of Bureau of Ships General and Electronics Publications, NAVSHIPS 250-020.

A. G. MUMMA Chief of Bureau

RECORD OF ENTRIES AND CORRECTIONS

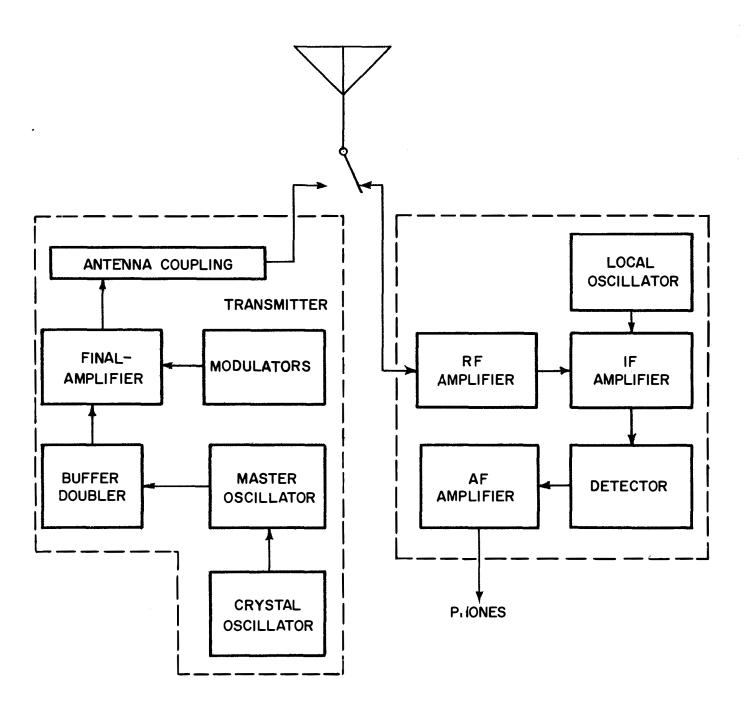
ORIGINAL DATA RECORDED BY				DATE				
AFFILIATION NAVAL				N				
EQUIPMENT CHANGE			REFERENCE STANDARD CHANGES					
Equil MENT CHIEVE			REQU	IRED	MA	DE		
NUMBER OR DESCRIPTION	MADE BY	DATE		STEP(S)	BY	DATE		
<u> </u>								
			İ		:	J		
		· · ·]		
						And the second s		
	The state of the s							
		:			PRESENTATION OF THE PROPERTY O	And the state of t		
					"Ми та лоного тей _а нуундагу н компандарын комп	MERCENTIAN PARAMETERS (* 190 augustus Mercentian de Laborat		
			The second secon	hangan ganggang pengangan pengahan dibahkhan diri 1954 (1961-1974)	Mercentalis Probablicação admisis sistematica de Perey	Material Principle Control of the Co		
and the control of th		Before i Police Folice con contractivo de la Maria esta comparia de la Maria del Maria de la Maria del Maria de la Maria del Maria	programmen normalistic for the walk has all with a few to the second code of	MATERIAL COLUMN AND AND TO THE RESIDENCE OF THE SECOND OF	Committee and the continues on the continues of the conti			
					William Control of the Control of th			
	1							

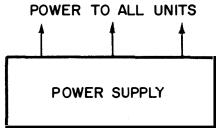
RECORD OF FIELD CHANGES

Field changes considered in preparation of this book: FC 1 thru 10.

FIELD CHANGE NUMBER	DATE COMPLETED	STEPS AF	FECTED	FIELD CHANGE NUMBER	DATE COMPLETED	STEPS AFFECTEI	
*		PAGE NO	STEP NO	*		PAGE NO	STEP NO
					(
				}	[- -		
							
<u> </u>							
		-				<u> </u>	ļ.
					ļ		
	 						
1	1		1	1 1	1		

^{*}Revisions necessitated by these field changes have been incorporated in this book.





INTRODUCTION

The purpose of this book is to describe a series of specially developed tests and measurements, the results of which may be used for reference when determining the equipment condition during future tests.

Part I, "Test Procedures and Maintenance References", consists of a series of tests that, when completed, will indicate the relative performance of the equipment. These tests and measurements, known as reference standards, are made at critical or significant points when the equipment is known to be performing at the maximum of its capabilities. The reference standards apply only to the equipment to which this book is permanently assigned, and because of this individuality are of even greater value.

Standards are to be established upon receipt of this book, and should be re-established after equipment overhaul. Prior to establishing the initial standards for equipment, each functional section shall first be checked to insure that the equipment is operating to the optimum of its capabilities. After the overall checking and peaking of sections the prescribed tests and measurements shall be made, and the results entered in the spaces provided. The standards are to be entered in ink, and the person performing the tests shall sign his name and enter the appropriate information on page iv of this book. Extreme care should be taken when making reference standard measurements to insure that the correct procedures are implicitly followed, otherwise the recorded standard will be useless. A reference standard summary (tear-out sheet) is in the front of this book. Record on it all standards obtained and list all field changes which have been accomplished, and forward to the address shown thereon.

The tolerances shown in parentheses in the reference standard column of this book are not absolute limits. They are intended merely to serve as a guide for the person performing the tests in establishing the standard.

Steps representing reference standards are of prime importance, for they indicate whether or not the equipment is performing at maximum efficiency. When the performance drops below the minimum acceptable standard, refer to NAVSHIPS 900269, Technical Manual for Radio Transmitting and Receiving Equipment TCS for service and repair procedures.

To correlate the reference standard steps with the steps on the Performance Standard Sheet, NAVSHIPS 900269.32, the step numbers have been designated by a star.

Part II, "Preventive Maintenance Check-Off" contains a series of tests which provide a systematic and efficient method of checking equipment, and of performing routine preventive maintenance.

Upon receipt of this book, use ink to record the serial number of the TCS to which it is permanently assigned. The serial number is entered in the space provided on both the cover and the title page. Also fill in complete date for the two-year period covered.

The book contains daily, weekly, monthly, and quarterly steps. A number of these steps are designated Operational Maintenance (O.M.) and should be performed by operating personnel to lighten the technician's work load. The time required is not a fixed

ORIGINAL vii

standard, but an average, established by testing personnel of varied experience.

In some cases the illustrations for the maintenance steps are not on the facing page but are referenced elsewhere in the book. On those illustrations used for both reference standards and preventive maintenance steps, the preventive maintenance step is denoted by a white circle with black figures while the reference standards are denoted by a black circle with white figures.

A cross-reference table is given below so that the Preventive Maintenance Check-Off tests can be accurately related to the reference standards accomplished in Part I of this book.

Charts are provided for the initials of the person performing the checks. In cases where the result of the check is a measurable quantity, space is also provided for recording the result.

MAIN	TENANCE CHECK	EQUIVALENT REFERENCE REFERENCE		
Frequency Period	Time Required	Step Number	Section	Step Number
Daily	5 minutes	1		None
Weekly	10 minutes	1		None
Monthly	90 minutes	1 and 2 3 and 4 5 and 6 7 and 8	A B C C	1 and 2 1 and 2 1 and 2 4 and 5
Quarterly	5 minutes	1	С	3

The following table lists test equipment and special tools required in the performance of the tests and maintenance procedures described herein.

TEST EQUIPMENT AND SPECIAL TOOLS REQUIRED

		USED IN PART						
DESCRIPTION AND NOMENCLATURE		I			п			
	A	В	С	D	w	M	Q	
Multimeter AN/PSM-4	x	x	х			х	x	
Signal Generator AN/URM-25			х			х	x	
Multimeter AN/USM-34		х				х		
Burnishing tool					х			
500 ohm, noninductive, 2 watt resistor		х	х			х		
13 ohm, noninductive, 5 watt resistor		х				x		
10 ohm, noninductive, 1 watt resistor			х			х		
100 uuf capacitor, transmitter type		X	х			x		
Frequency Meter, LM-21			х			x		

SPECIAL PROCEDURES

- 1. Energize Radio Transmitting and Receiving Equipment TCS as instructed in the operating procedure given in the Technical Manual, NAVSHIPS 900269. Allow 5 minutes warm-up time after energizing equipment.
- 2. The Full Operation Condition referred to in these reference standards means that the equipment should be operating under full load with all controls in their normal position for the function listed, unless otherwise specified.
- 3. All test equipment should be disconnected at the completion of a reference standard. All cables, terminal board connections, tubes, etc., which have been disconnected or removed in the course of a reference standard should be restored to their original position at the completion of the reference standard.
- 4. Unless specifically instructed in a reference standard test procedure, the following controls should be set in the indicated position. If the setting of any of these controls is changed in the course of a reference standard measurement, the control should be returned to the specified position upon completion of the reference standard.

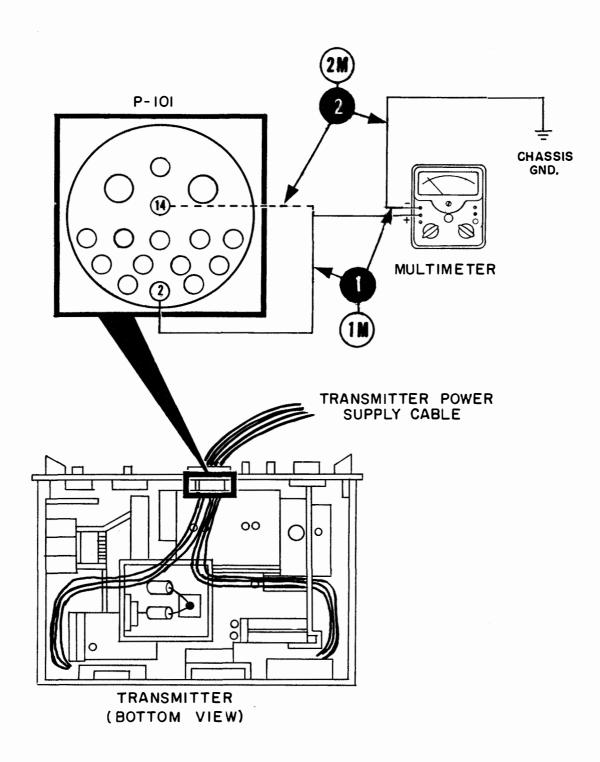
Transmitter

POWER switch (S-107): ON OSCILLATOR SELECTOR (S-104): MO EMISSION switch (S-105): CW

Receiver

POWER switch (S-205): ON OSCILLATOR SELECTOR (S-202): MO VOICE - CW switch (S-203): CW AF GAIN control (R-220): Fully clockwise RF GAIN control (R-216): Fully clockwise

gitalisis, like tingkhalistaan aska filikun.	kilo ataukia, seki seligis esi tetasa a aksi.	t, mallare tha its them to Marchet Assay and	is two-collections away in with	is to 15/19/Japane 2018	Mittalinus meetina talaa ka ee ee ee	med sasket tilbreflictel	Statistical substates:
×							
`							
av.							
	•						
							9



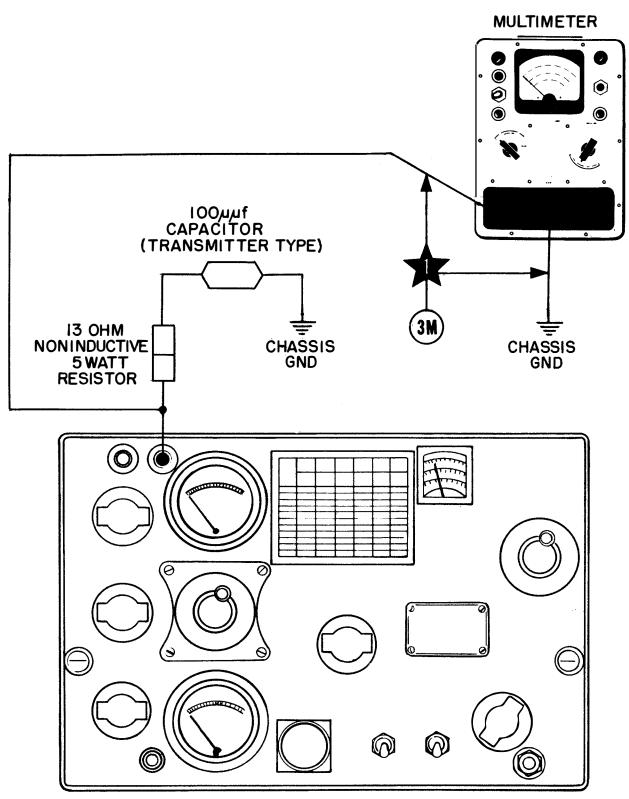
NAVSHIPS 900269. 42 POWER SECTION

PART I - SECTION A
STEPS AND 2

TCS Completely De-energized.

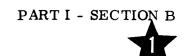
NOTE THIS CHECK INVOLVES THE MEASUREMENT OF HIGH VOLTAGE. OBSERVE ALL SAFETY PRECAUTIONS.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
•	Measure and record the high voltage supply.	Remove the transmitter chassis from its cabinet. Connect the positive lead of Multimeter AN/PSM-4 to pin 2 of the front panel POWER CONNECTOR (P-101) and the negative lead to chassis ground. Energize the equipment and record the multimeter reading.	Multimeter AN/PSM-4	VDC (360 to 450)
2	Measure and record the low voltage supply.	Connect the positive lead of the multimeter to pin 14 of POWER CONNECTOR (P-101) and the negative lead to chassis ground. Energize the equipment and record the multimeter reading.	Multimeter AN/PSM-4	VDC (200 to 245)



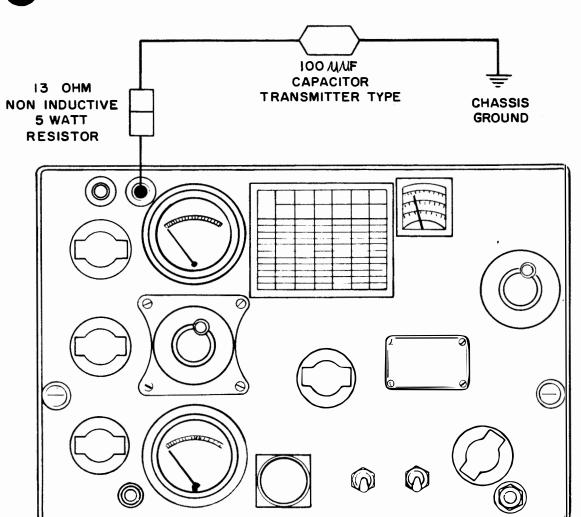
TRANSMITTER (FRONT PANEL)

NAVSHIPS 900269.42 TRANSMITTER SECTION

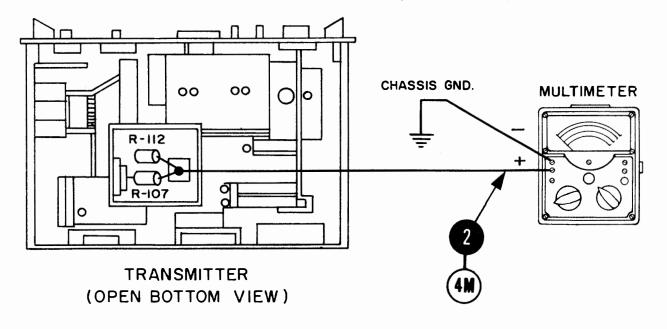


TCS in Full Operation. Transmitter: Off.

STEP	ACTION	PRELIMINARY	READ	REFERENCE
NO.	REQUIRED	ACTION	INDICATION ON	STANDARD
	Measure and record the transmitter power output.	Connect a 13 ohm, non- inductive, 5 watt resistor in series with a 100 uuf transmitter type capacitor between the antenna post/ receptacle and chassis ground to serve as a dummy load. Connect the RF Probe of the multimeter (AN/USM-34) between the antenna post/ receptacle and chassis ground. Turn the POWER switch (S-107) ON and al- low five minutes to warm up. Key the transmitter and note the reading on the multimeter. Calculate the true power out- put by using the formula: P=E2 where R=13 ohms. Repeat the above procedure with the EMISSION switch (S-105) in the VOICE position.	Calculate	Watts (25 minimum) VOICE Watts (14 minimum)



TRANSMITTER (FRONT PANEL)

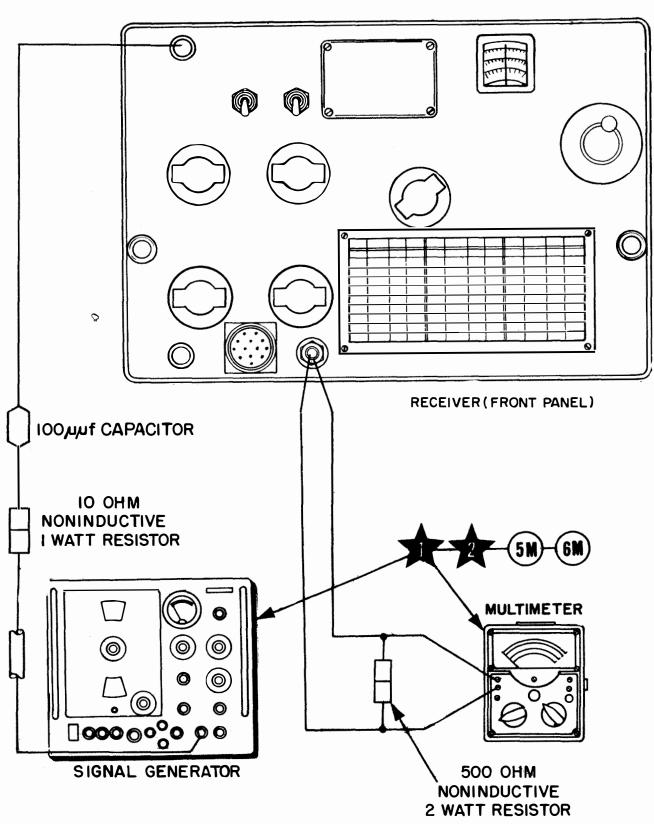


NAVSHIPS 900269. 42 TRANSMITTER SECTION

TCS in Full Operation. Transmitter: Off.

Measure and record the final amplifier grid current. Connect the transmitter and the dummy load as described in Section B; Step 1. Remove the screw holding the grounding lug connecting the final amplifier grid resistors R-107 and R-112. Remove this lug from the chassis and connect the multimeter (AN/PSM-4 set to measure ma current) in series with the junction of the resistors (R-107 and R-112) and ground. Turn the equipment on and allow five minutes for warm up. Using the BAND SWITCH (S-101) and the TUNING control (C-101), tune to all the available frequencies of the transmitter and observe the multimeter and observe the multimeter indication.	STEP	ACTION	PRELIMINARY	READ	REFERENCE
	NO.	REQUIRED	ACTION	INDICATION ON	STANDARD
	2	cord the final amplifier grid	the dummy load as described in Section B; Step 1. Remove the screw holding the grounding lug connecting the final amplifier grid resistors R-107 and R-112. Remove this lug from the chassis and connect the multimeter (AN/PSM-4 set to measure ma current) in series with the junction of the resistors (R-107 and R-112) and ground. Turn the equipment on and allow five minutes for warm up. Using the BAND SWITCH (S-101) and the TUNING control (C-101), tune to all the available frequencies of the transmitter and observe the multi-	AN/PSM-4	(3 to 5)





NAVSHIPS 900269. 42 RECEIVER SECTION

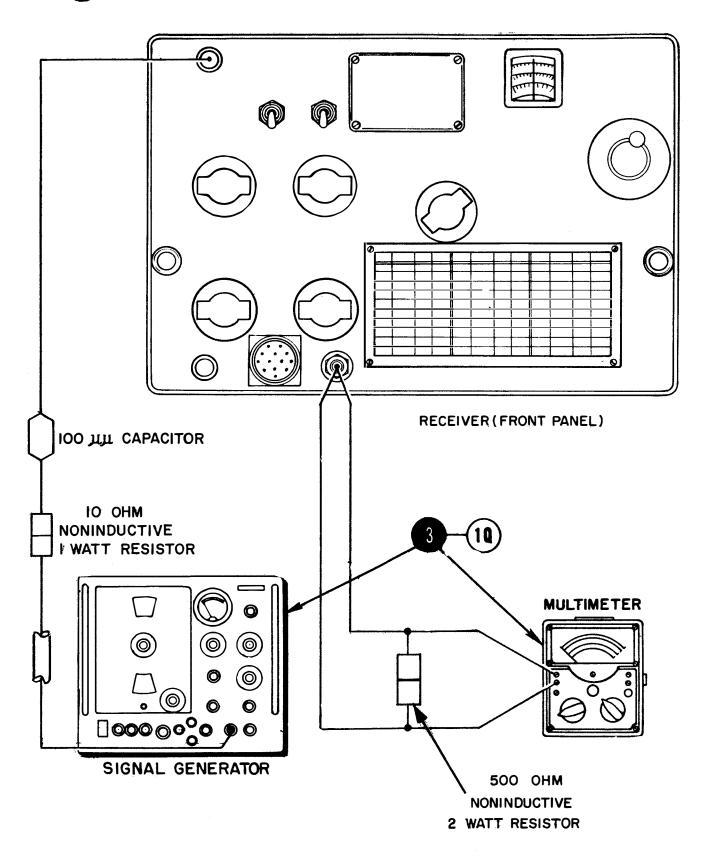


TCS Completely De-energized.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
•	Measure and record the receiver sensitivity.	Disconnect the receiver antenna from the antenna post/receptacle. Connect Signal Generator AN/URM-25 in series with a 10 ohm non-inductive resistor and a 100 uuf capacitor to the antenna post/receptacle. Connect a 500 ohm non-inductive resistor across the phone plug. Connect a multi across the resistor. Tune the signal generator to 30% with 400 cycles. Place and tune to the signal generator output to zero (absolute RF GAIN control (R-216) formultimeter. Increase the signal generator 17.3 volts. Record the signal generator output to zero the signal generator 17.3 volts. Record the signal generator 17.3 volts. Record the signal generator across the above procedure a Touch nothing. Proceed to signal generator to signal generator across the signal generator 17.3 volts. Record the signal generator across the signal generator across the signal generator 17.3 volts. Record the signal generator across the signal genera	imeter (AN/PSM-4 1.5 MC and modula the receiver in furator. Attenuate the ute minimum) and r 1.73 volts indicate output until the man al generator output t 3 MC and again a	ate the output ll operation e signal gen- adjust the tion on the ultimeter reads
***	Measure and record the receiver bandwidth.	After the receiver sensitivity has been measured, increase the signal generator output to twice that obtained in step 1. Increase the signal generator frequency until its output decreases to the orig Frequency Meter LM-21 defendency. KC. Now decrease the signal generading as obtained above as Subtract the second reading for the difference as the bandwing the signal generation.	termine the signal rator frequency fo nd determine this f rom the first readi	generator r the same requencyKC

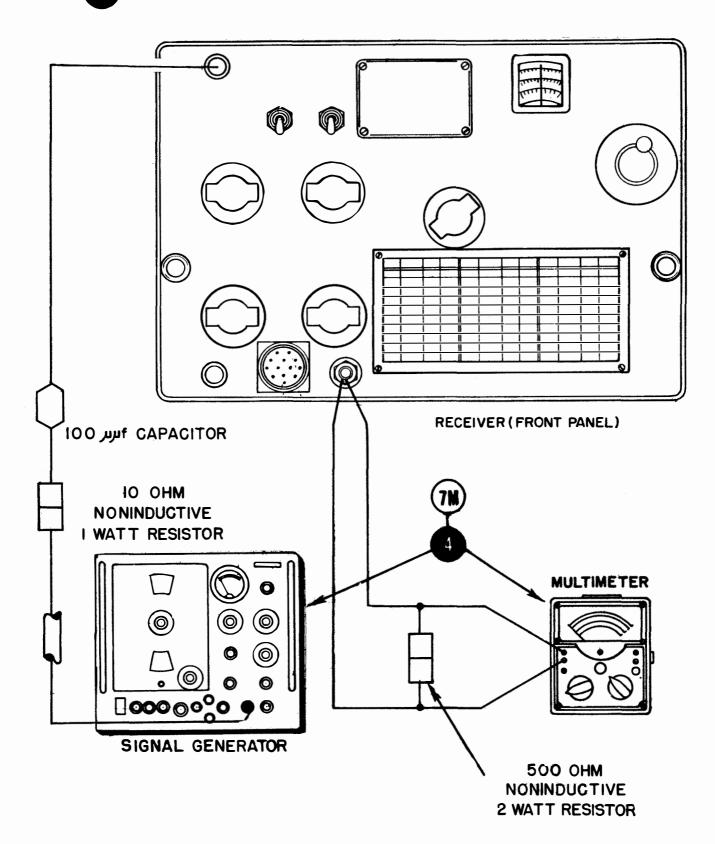
STEP





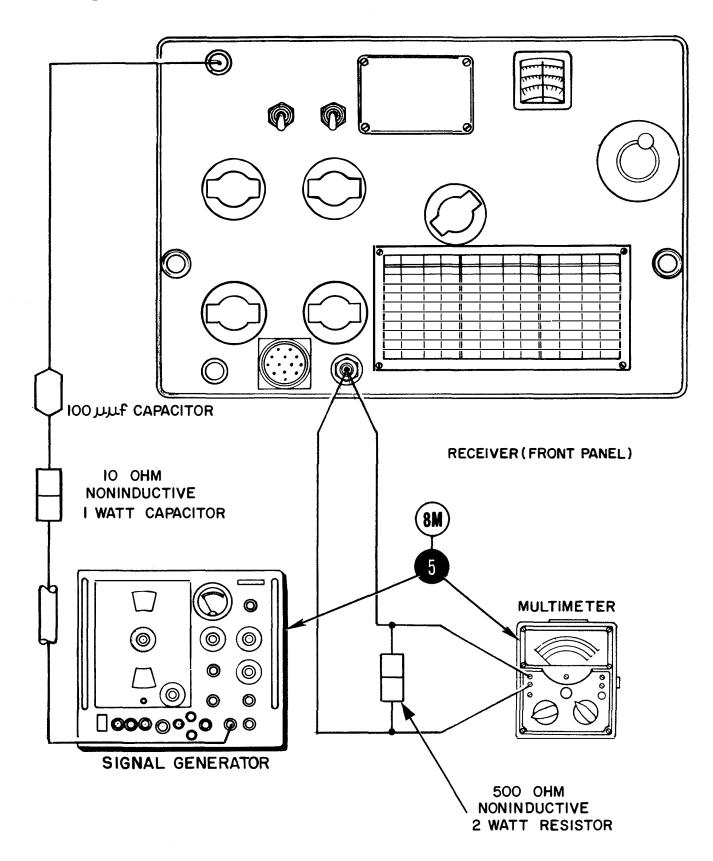
TCS Receiver in Full Operation.
VOICE - CW switch (S-206): VOICE.

			1	
STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
3	Record the BFO operation.	Connect the signal generator and the multimeter as described in Section C, Step 1. Tune the receiver and the signal generator to 3 MC. Adjust the signal generator output to 10 microvolts modulated 30% with 400 cycles. Adjust the receiver tuning control for the maximum indication on the multimeter. Without changing the tuning of the receiver, place the VOICE - CW switch (S-206) in CW position. The multimeter indication should drop to zero.	Multimeter AN/PSM-4	(GO/NO-GO)
L				



Measure and record the Audio Amplifier Gain. Connect the signal generator and the multimeter as described in Section C, Step 1. Tune the receiver and the signal generator output to 15 microvolts modulated 30% with 400 cycles. Record the indication of the multimeter.	STEP	ACTION	PRELIMINARY	READ	REFERENCE
	NO.	REQUIRED	ACTION	INDICATION ON	STANDARD
		Measure and record the Audio Amplifier	Connect the signal generator and the multimeter as described in Section C, Step 1. Tune the receiver and the signal generator to 1.5 MC. Adjust the signal generator output to 15 microvolts modulated 30% with 400 cycles. Record the indication of	Multimeter	VAC





STEP

STEP	ACTION	PRELIMINARY	READ INDICATION ON	REFERENCE
NO.	REQUIRED	ACTION		STANDARD
	Measure and record the receiver AVC characteristics.	Connect the signal generator and the multimeter as described in Section C, Step 1. Tune the receiver and the signal generator to 2.3 MC. Adjust the generator for 100,000 uV output modulated 30% with 400 cycles. Adjust the AF GAIN control (R-220) for 17.3 volts indication on the multimeter. Attenuate the signal generator output to 1000 uV output and record the indication on the multimeter. Repeat the above procedure at 4.5 MC and again at 9.0 MC.	Multimeter AN/PSM-4	2. 3 MC VAC (8 to 10) 4. 5 MC VAC (8 to 10) 9. 0 MC VAC (8 to 10)

STEP (10)

PART II
O. M. - Designates PREVENTIVE MAINTENANCE CHECK OFF
Operationa Maintenance

TCS Completely De-energized.

STEP NO.	ACTION REQUIRED	PROCEDURE
0. M.	Clean and inspect the equipment externally.	Dust the outside of the equipment with a clean dry cloth and check all the controls to assure free movement in their operation.
		IN PORT PROCEDURE The equipment should not be energized for the sole purpose of making daily checks. The equipment should, however, be energized at least twice a week and at least two days before getting underway. Enter "In Port" in the blanks when appropriate.

STEP



Enter the name of the month in which the maintenance step is begun in the first empty block of the top row. Fill in the names of the months consecutively thereafter for a period of two years. Initial the chart after performing step 1D.

of two years.	IIIIIIai	tite	Chai	t all	reı	per	1011	nmg	Sie	h 11	υ .			 	 	
DAY																
1																
2																
3																
4		_														
5																
6								-	,							
7									.,k				 			
8		_									·		 		 	
9		_			<u></u>											
10		_														
11																
12		+														
13	1				_				<u> </u>							
14 15		+														
	1								<u> </u>					 		
16	<u> </u>	-	-				<u> </u>		<u> </u>							
18																
19			-									ļ				
20		_														
21		_														
22													 			
23	İ															
24																
25																
26													-			
27																
28								,								
29																
30																
31																

STEP



TCS Completely De-energized.

STEP NO.		ACTIOI EQUIRI			PROCEDURE								
1W	Inspe clea lays	ct and in all r	·e-	Inspect all relays for excessive pitting and dirt on the Clean as needed with a burnishing tool.								he cont	acts.
(1W)	Month												
Week	Initial												
2	Initial												
3	Initial												
4	Initial												
5	Initial												
11	Month												
Week 1	Initial												
2	 Initial												
3	Initial												
4	Initial												
5	Initial												

STEP (1M

NOTE

THIS CHECK INVOLVES THE MEASUREMENT OF HIGH VOLTAGE. OBSERVE ALL SAFETY PRECAUTIONS.

TCS Completely De-energized.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
	Measure and record the high voltage supply.	Refer to the illustration on page 1-0. Remove the transmitter chassis from its cabinet. Connect the positive lead of Multimeter AN/PSM-4 to pin 2 of the front panel POWER CONNECTOR (P-101) and the negative lead to chassis ground. Energize the equipment and and record the multimeter reading.	Multimeter AN/PSM-4	VDC (360 to 450)
Step No.	Month			
1M	VDC Initial Date			
Step No.	Month			
1M	VDC Initial Date			

STEP 2M

TCS in Full Operation.

STEP NO.	ACTION REQUIRED				IMINA TION	RY		RE INDICAT	AD TON O		EFERI STAND	
2M	Measure a record the voltage s	ne low supply.	POWI and th chass Energiz	1-0. t the pultimed ER CON the negation is ground the the of	ositive ter to j NNECT tive le ind.	lead opin 14 of OR P- ad to	of 101	Multime AN/PS		(20	00 to 24	VDC
Step No.	Month											
	VDC	1						<u> </u>			<u> </u>	
(2 M)	Initial		1								}	
	Date		<u></u>			J					<u> </u>	L
Step No.	Month											
	VDC		<u> </u>]
(2M)	Initial											
	Date											

STEP 3M

TCS in Full Operation. Transmitter: Off

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
3M)	Measure and record the transmitter power output.	Refer to the illustration on page 1-2. Connect a 13 ohm, non-inductive, 5 watt resistor in series with a 100 uuf transmitter type capacitor between the antenna post/receptacle and chassis ground. Connect the RF Probe of the Multimeter (AN/USM-34) between the antenna post/receptacle and chassis ground. Turn the POWER switch (S-107) ON and allow five minutes to warm up. Key the transmitter and note the reading on the multimeter. Calculate the true power output by using the formula: $P = \frac{2}{R}$ where R = 13 ohms Repeat the above procedure with the EMISSION switch (S-105) in the VOICE position.		CW Watts (25 minimum) VOICE Watts (14 minimum)
Step No.	Month			
3M)	Initial Date Watts			
Step No.	Month			
3M)	Initial Date Watts			

STEP

TCS in Full Operation.

Transmitter: Off

STEP NO.		CTION QUIREL)			IMINA TION	RY		RE INDICA	EAD TION C	REFERE STANDA	
41	_	d the fi ifier gr	rid	Refer to the illustration on page 1-4. Connect the transmitter and the dummy load as described in Section B, Step 1. Remove the screw holding the grounding lug connecting the final amplifier grid resistors R-107 and R-112. Remove this lug rom the chassis and connect the multimeter (AN/PSM-4 set to measure ma current) in series with the junction of the resistors (R-107 and and R-112) and ground. Turn the equipment on and allow five minutes for warm up. Using the BAND SWITCH (S-101) and the TUNING control (C-101), tune to all the available frequencies of the transmitter and observe the multimeter indication.					(3 to 5)	MA		
Step No.	Month											
	MA											
(4M)	Initial											
	Date			l i		İ		<u> </u>	<u> </u>		1 1	
Step No.	Month			·								
	MA											
(AM)	Initial			!		l						
\ T	Date											

STEP (5M)

TCS Completely De-energized.

STEP NO.		ACTION PRELIMINARY READ REFERENCE ACTION INDICATION ON STA								
5M)	Measur recor receir sensit	d the ver	page 1-9. Disconnect to tenna from post/receptance in series we non-induct istor and a itor to the receptacle Connect a 50 ductive, 2 across the using a state Connect a (AN/PSM-across the Tune the sig 30% with 4 and tune to erator output GAIN continueter. Increase the 17.3 volts. Repeat the a	oohm, non-in-watt resistor receiver output andard phone plu multimeter 4 set to OUTPU resistor. In al generator to 00 cycles. Place the signal generator to zero (absorol (R-216) for 1 coutput of the signal second the output of the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal second the signal se	1.5 MC and more the receiver is rator. Attenuate lute minimum) at .73 volts indicate gnal until the mutput of the signal at 3 MC and again	Generator AN/URM-25 3 MC: (5.6 maximum) 6 MC (3.9 maximum) 6 MC (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (3.9 maximum) 6 mc (4.7 maximum) 6 mc (3.9 maximum) 6 mc (4.7 maximum) 6 mc (3.9 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7 maximum) 6 mc (4.7				
Step No.	Month									
	Initial				Naga Ayababababa					
(5 M)	Date									
	uV									
Step No.	Month			7						
The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	Initial									
(T AA)	Date				·					
(5M)	uV						3 MC: (5.6 maxim) 6 MC (3.9 maxim) te the output l operation esignal gendingly the RF on the multipleter reads the reads the reads the reads.			

STEP 6M

STEP NO.		TION QUIRE				IMINA TION	RY		RE INDICA	EAD TION O		REFERE STAND	
6 M	Measure and record the receiver bandwidth.			Refer to the illustration on page 1-6. After the receiver sensitivity has been measured, increase the signal generator output to twice that obtained in step 5M. Increase the signal generator frequency until its output decreases to the original value of step 5M. Using Frequency Meter LM-21 determine the signal generator frequency. KC Now decrease the signal generator frequency for the same reading as obtained above and determine this frequency KC. Subtract the second reading from the first reading and record the difference as the bandwidth.					Calcula	te	Ì	Refer to (propriate Technica Manual f proper v	e il or
Step No.	Month												
6M)	KC Initial Date												
Step No.	Month												
6M)	KC Initial Date			 					1	 			

STEP (7M

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
7M	Measure and record the Audio Amplifier Gain.	Refer to the illustration on page 1-10. Connect the signal generator and the multimeter as described in Section C, Step 1. Tune the receiver and the signal generator to 1.5 MC. Adjust the signal generator output to 15 microvolts modulated 30% with 400 cycles. Record the indication on the multimeter.	Multimeter AN/PSM-4	VAC (23 to 26)
Step No.	Month			
	VAC			
(7M)	Initial Date			
Step No.	Month			
	VAC			
(7M)	Initial Date	 	<u> </u>	
	Date			

STEP (8M)

STEP NO.	ACTION REQUIRED Measure and record the receiver AVC characteristics.		С	page Connector a described Step Tune t signa Adjust 100,0 lated Adjust trol (indic mete Attenu signa uV ar tion (Repeat	to the state of the record at the record at the record at the record at the record at the record at the record the record the record the record the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record at the record a	signal amultimen Section server a coutput with 400 AF GAI on the next or the coutput rator to coutput rator the multime	ation on genera- neter as on C, and the o 2.3 M r for modu- 0 cycles IN con- 7.3 volt nulti- 1 of the o 1000 indica- eter. 1 ocedure	IC.	Multimeter				
Step No.	Month												
(8M)	Initial Date												
	VAC												
Step No.	Month												
8 M	Initial Date VAC												
				li								<u> </u>	

STEP

TCS Receiver in Full Operation. VOICE - CW switch (S-206): VOICE.

STEP NO.	ACTION REQUIRE		Pl	RELIM ACTI	INARY ON			EAD ATION	_	REFERE		
10	Record the I operation.	·	Refer to page 1-Connect tor and descrik Step 1. Tune the signal and the Adjust the modula cycles. ceiver the manual the multiple of the result of the result of the result of the multiple of the result of the multiple of the result of the result of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the multiple of the mu	the MC. rator lts 400 re- for cion on uning re the	Multimeter AN/PSM-4			(GO/NO-GO)				
			Upon completion of the sicopy of this book from the Supply Distribution Point.									
	1st QUAR	TER	2nd	QUART	ER	3rc	d QUAR	TER	4th Q	th QUARTER		
	Record Initial	Date	Record	Initial	Date	Record	Initial	Date	Record	Initial	Date	
10			1									
	<u> </u>	QUARTER 6th QUARTER					7th QUARTER			8th QUARTER		
	Record Initial	Date	Record	Initial	Date	Record	Initial	Date	Record	Initial	Date	
(10)												

