

DATE 6-1-61

SH. 1 OF 3.

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TMC SPECIFICATION NO. S-204 A

TITLE: TAC TEST PROCEDURE

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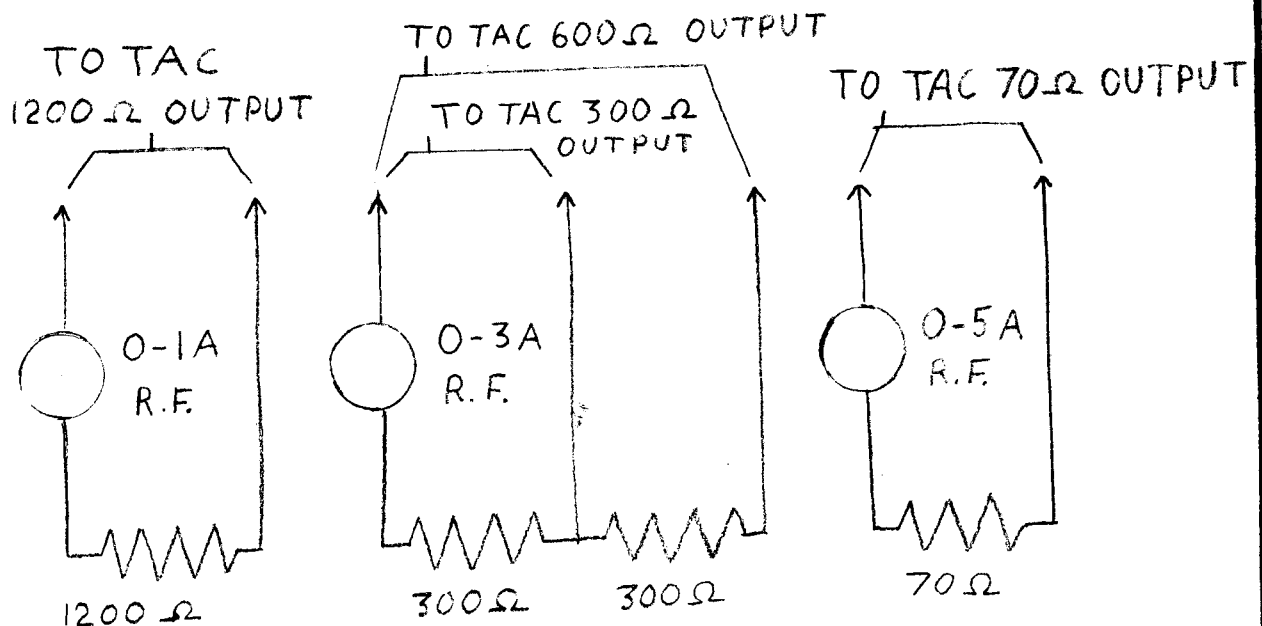
SJM

1. EQUIPMENT REQUIRED

- A. One GPT-750 Transmitter
- B. One R.F. Ammeter 0-1A
- C. One R.F. Ammeter 0-3A
- D. One R.F. Ammeter 0-5A
- E. One 1200 Ohm Non-Reactive 1000 watt load
- F. Two 300 Ohm Non-Reactive 1000 watt loads
- G. One 70 Ohm Non-Reactive 1000 Watt load
- H. Six feet RG-11/U terminated with UG-59B/U & PL-259
- I. CH-199 (Test Data Sheet)

2. TEST SET-UP

- A. Mount the TAC securely on the GPT-750 by means of the studs and wing nuts provided.
- B. Connect the GPT-750 output to the TAC input with the RG-11/U.
- C. Connect the R.F. Ammeters and loads as shown below:



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3. Inspect the TAC for mechanical and electrical defects. All sliding contacts must be firm, but not binding. Tune the GPT-750 and TAC to the test frequencies indicated on the test data sheet (CH-199). The TAC control position should not deviate radically from those shown on the sample test data sheet.

The R.F. current indicated in the load must not fall below that shown on the sample test data sheet. Record the test results on the test data sheet.

NOTES: The GPT-750 output should not exceed 1000 watts during the test. A 70 ohm load may be connected directly to the GPT-750, and the operation in the two cases compared.

Persons not familiar with the TAC and GPT-750 should refer to the equipment instruction books.

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BALANCED OUTPUT										UNBALANCED OUTPUT					
FREQ. MC	LOAD OHMS	TUNE COND.	COUPL. TAP	BAND SW	LOAD ADJ.	LOAD CUR.	TUNE COND.	COUPL. TAP	BAND SW	LOAD ADJ.	LOAD CUR.				
2.0	70	18	MAX	LO f	165	3.3	4	MAX	LO f	219	3.3				
	300	18	MAX	LO f	160	1.6	12	MAX	LO f	212	1.6				
	600	18	MAX	LO f	170	1.1	18	MAX	LO f	252	1.1				
	1200	18	MAX	LO f	175	.8	22	MAX	LO f	243	.8				
3.5	70	12	MAX	LO f	154	3.3	35	MAX	LO f	151	3.3				
	300	13	MAX	LO f	149	1.6	38	MAX	LO f	161	1.6				
	600	14	MAX	LO f	164	1.1	36	MAX	LO f	161	1.1				
	1200	14	MAX	LO f	175	.8	38	MAX	LO f	194	.8				
5.5	300	0	MAX	LO f	132	1.6	0	MAX	LO f	200	1.6				
	70	18	2	LO f	133	3.3	10	2	LO f	130	3.3				
	300	13	2	LO f	136	1.6	10	2	LO f	140	1.6				
	600	13	2	LO f	138	1.1	12	2	LO f	141	1.1				
8.6	1200	13	2	LO f	142	.8	14	2	LO f	141	.8				
	300	6	2	LO f	136	1.6	7	2	LO f	126	1.6				
	70	15	3	LO f	121	3.3	12	3	LO f	128	3.3				
	300	18	3	LO f	119	1.6	14	3	LO f	130	1.6				
13.0	600	18	3	LO f	118	1.1	18	3	LO f	132	1.1				
	1200	13	3	LO f	120	.8	50	3	LO f	130	.8				
	300	0	3	LO f	118	1.6	3	3	LO f	126	1.6				
	70	36	4	LO f	117	3.3	38	4	LO f	119	3.3				
18.0	300	12	4	LO f	107	1.6	10	4	LO f	112	1.6				
	600	12	4	LO f	106	1.1	10	4	LO f	113	1.1				
	1200	12	4	LO f	106	.8	15	4	LO f	116	.8				
	300	8	5	LO f	109	1.6	15	5	LO f	111	1.6				
30.0	70	30	6	LO f	120	3.3	14	6	LO f	132	3.3				
	300	10	6	LO f	113	1.6	14	6	LO f	114	1.6				
	600	12	6	LO f	116	1.1	13	6	LO f	111	1.1				
	1200	13	6	LO f	112	.8	14	6	LO f	110	.8				
30.0	300	22	6	LO f	178	1.6	32	6	LO f	152	1.6				
	70	15	MIN	LO f	212	3.0	21	7	LO f	254	3.0				
	300	17	MIN	LO f	182	1.5	17	7	LO f	254	1.5				
	600	15	MIN	LO f	212	1.0	15	7	LO f	254	1.0				
1200	15	MIN	LO f	192	.7	16	7	LO f	254	.7					

SAMPLE TEST DATA SHEET

DATE 3/12/54
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TMC SPECIFICATION NO. S-204

TITLE: TEST PROCEEDURE TAC JOB

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A. EQUIPMENT REQUIRED

1. BC-610 Transmitter or equivalent with 70Ω output.
2. Radio frequency ammeter, 0-3 amp.
3. Radio frequency ammeter, 0-1 amp.
4. 70 Ohm non-inductive load.
5. 300 Ω " " "
6. 600 Ω " " "
7. 1200 Ω " " "
8. TMC Form 140 " TAC TEST DATA SHEET".

B. PRELIMINARY.

1. Mount TAC securely on BC-610 transmitter by means of provided studs and wing nuts.
2. Connect output of transmitter to input of TAC with a suitable length of RG-11/U cable.
3. The loads and R.F. ammeters should be arranged so that the 0-3 amp. meter records the current in the 70 Ω load and the 0-1 amp. meter records the current in the 300, 600, and 1200 ohm loads.
4. The TAC will be checked at the band cross-over frequencies to ensure complete frequency coverage and proper operation. Any person unfamiliar with this set should first read the instruction book for the principles of operation. The safety precautions embodied therein should be carefully noted and adhered to.

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C. TUNING PROCEEDURE

1. The TAC is tunned as per instruction book and is to be checked on both BALANCED and UNBALANCED loads. The cross-over frequencies and typical results are shown on the accompanying sample form. The performance of the TAC under test should be recorded on the TEST DATA SHEET, TMC form 140.
2. As a guide to the TAC performance the transmitter should be checked working directly into a 70Ω load. The transmitter power output should be calculated. When the TAC is employed to couple to other impedances , it should of itself be no less than 80% efficient.

S-204

BY
APP.

SERIAL NO.
DATE:

MODEL TAC TEST DATA SHEET

FREQUENCY KILOCYCLES	TRANSMITTER OPERATION		BALANCED LOAD						REMARKS	UNBALANCED LOAD				REMARKS	
	7P-5 DRIVE PLATE	LOAD OUTPT. CUR.	TAG	TAG	TAG	TAG	TAG	TAG		TAG	TAG	TAG	TAG		TAG
			TUNING	COUPLING	BAND SW.	LOAD	LOAD	LOAD		LOAD	TUNING	COUPLING	BAND SW.		LOAD ADJ.
3450		73	46	MAX	LOW	112	1.95		44	MAX	LOW	110	1.9		
		300	50	MAX	LOW	153	1.0		44	MAX	LOW	156	.94		
		600	50	MAX	LOW	160	.68		44	MAX	LOW	178	.68		
		1200	50	MAX	LOW	171	.5		46	MAX	LOW	196	.44		
3450		300	2	MAX	2	132	.95		2	MAX	2	112	.95		
5500		73	44	MAX	2	135	2.0		42	MAX	2	129	2.0		
		300	50	MAX	2	110	1.0		42	MAX	2	110	1.0		
		600	48	MAX	2	111	.7		42	MAX	2	112	.7		
		1200	48	MAX	2	114	.52		42	MAX	2	153	.47		
5500		300	8	MAX	3	134	1.0		6	MAX	3	138	1.0		
8600		73	48	5	3	131	2.0		42	4	3	133	1.95		
		300	50	5	3	133	.95		46	4	3	137	.98		
		600	50	1	3	129	.7		46	4	3	137	.7		
		1200	50	3	3	135	.5		46	4	3	110	.47		
8600		300	8	4	4	153	1.0		8	4	4	119	1.0		
13000		73	40	6	4	117	1.8		38	3	4	116	1.75		
		300	42	6	4	115	.9		40	3	4	119	.92		
		600	48	6	4	115	.78		42	3	4	119	.7		
		1200	48	6	4	117	.7		42	3	4	118	.5		
13000		300	10	4	5	114	.12		12	4	5	117	.9		
18000		73	38	MIN	5	117	1.65		36	6	5	121	1.7		
		300	42	MIN	5	111	.88		38	6	5	115	.9		
		600	40	MIN	5	109	.88		38	6	5	113	.85		
		1200	40	MIN	5	107	.82		40	6	5	114	.63		
18000		300	18	MIN	6	108	.88		26	6	6	118	.88		