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DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

CALIBRATION PROCEDURE FOR RADAR TEST SET AN/UPM-29C, TS-147B/UP, TS-147D/UP AND TS-147F/UP

Headquarters, Department of the Army, Washington, DC

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*This bulletin supersedes TB 9-6625-2144-35, 18 December 1985, including all changes.

SECTION I IDENTIFICATION AND DESCRIPTION

1. Test Instrument Identification. This bulletin provides instructions for the calibration of Radar Test Set, AN/UPM-29C and TS-147B/UP, TS-147D/UP, and TS147F/UP. The manufacturers' manuals TM's 11-6625-917-15 and 11-1247 (Series) were used as the prime data source in compiling these Instructions. The equipment being calibrated will be referred to as the TI (test instrument) throughout this bulletin.

a. Model Variations. Differences among models are described in text.

b. Time and Technique. The time required for this calibration is approximately 3 hours,, using the microwave technique.

2. Forms, Records, and Reports

a. Forms, records, and reports required for calibration personnel at all levels are prescribed by TB 750-25.

b. Adjustments to be reported are designated (R) At the end of the sentence in which they appear. When adjustments are in tables, the (R) follows the designated adjustment. Report only those adjustments made and designated with (R).

3. Calibration Description. TI parameters and performance specifications which pertain to this calibration are listed in table 1.

Table 1. Calibration Description

Test instrument parameters	Performance specifications	
	TS-147 ()/UP	AN/UPM-29 ()
Frequency meter	Range: 8470 to 9630 MHz Accuracy: ± 2.5 MHz absolute ± 1 MHz relative for increments of less than 60 MHz ± 1 MHz at 9310	Range: 15.7 to 17.0 GHz Accuracy: ± 8 MHz absolute ± 1.5 MHz/60 MHz increment relative
Signal generator	Range: 8500 to 9600 MHz	Range: 15.7 to 17.0 GHz
RF output power	Range: -7 to -85 dBm Accuracy: ± 1.5 dB	Range: -43 to -90 dBm Accuracy: ± 2 dB
RF input power ¹	Range: +7 to +30 dBm Accuracy: ± 1.5 dB	Range: +3 to +30 dBm Accuracy: ± 1.5 dB

¹Item should be calibrated to highest cardinal point allowed by standard (Example: +7, +10, +20, +30).