

# TB 9-6625-2355-35

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

## CALIBRATION PROCEDURE FOR RADAR TEST SET, TS-4530( )/UPM (JcAIR Part Number: 50-1045-70)

Headquarters, Department of the Army, Washington, DC

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## SECTION I IDENTIFICATION AND DESCRIPTION

**1. Test Instrument Identification.** This bulletin provides instructions for the calibration of Radar Test Set, TS-4530( )/UPM (JcAIR Part Number: 50-1045-70). The manufacturer's manual was 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.** None.

**b. Time and Technique.** The time required for this calibration is approximately 2 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                                                                                                                                                                       |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Signal Generator:<br>Frequency<br><br>Power | Range: 1030 or 1090 MHz<br>Accuracy: $\pm 0.01$ MHz<br>Range: + 4 to - 44 dBm<br>Accuracy: $\pm 1.5$ dB at antenna connector<br>Range: - 40 to - 88 dBm<br>Accuracy: $\pm 1.5$ dB at direct port |
| Measurement receiver<br>Power               | Range: 1030 or 1090 MHz<br>+68 to +20 dBm at direct port<br>+24 to -24 dBm at antenna port<br>Accuracy: $\pm 1.5$ dB                                                                             |
| Antenna                                     | Difference ( $\Delta$ ) port or Sum ( $\Sigma$ ) port<br>Resistance: $25 \Omega$<br>Accuracy: $\pm 3 \Omega$                                                                                     |

## SECTION II EQUIPMENT REQUIREMENTS

**4. Equipment Required.** Table 2 identifies the specific equipment to be used in this calibration procedure. This equipment is issued with Secondary Transfer Calibration Standards Set AN/GSM-287 and AN/GSM-705. Alternate items may be used by the