

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR'S MANUAL

INTERROGATOR SET AN/TPX-26

AND

RADAR SET CONTROL GROUP AN/FPA-14

HEADQUARTERS DEPARTMENT OF THE ARMY

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INTERROGATOR SET AN/TPX-26 AND RADAR SET CONTROL GROUP AN/FPA-14

Paragraph	Page		
CHAPTER	1. INTRODUCTION		
Section	I. General -----	1, 2	3
	II. Description and data -----	3-16	3
CHAPTER	2. OPERATING INSTRUCTIONS		
Section	I. Operator's controls and indicators -----	17-24	15
	II. Operation -----	25-30	20
CHAPTER	3. MAINTENANCE INSTRUCTIONS		
Section	I. Maintenance procedures -----	31-36	28
	II. Performance test -----	37-41	36
CHAPTER	4. AUXILIARY EQUIPMENT		
Section	I. Control, Remote Switching C1903/TPA-3 -----	42, 43	38
	II. Radar Set, Control Group AN/FPA-14, introduction-----	44-51	38
	III. Radar Set Control Group AN/FPA-14, operating instructions-----	52, 53	43
	IV. Radar Set Control Group AN/FPA-14, maintenance instructions -----	54, 55	45
CHAPTER	5. DEMOLITION OF MATERIEL TO PREVENT ENEMY USE -----	56-59	48
APPENDIX	I. REFERENCES -----		50
	II. BASIC ISSUE ITEMS LIST, INTERROGATOR SET AN/TPX-26 -----		51
	III. BASIC ISSUE ITEMS LIST, RADAR SET CONTROL GROUP AN/FPA-14 -----		63
INDEX -----			65

* This manual supersedes TM 11-5895-207-10P, 22 December 1958, including C 2, 15 June 1960, and so much of TB 11-1190-1, 29 August 1958, including C 1, 27 July 1959, and TM 11-1190, 2 June 1954, including C 1, 29 April 1955, C 2, 29 February 1956, and C 3, 5 September 1956, as pertains to operation and operator's maintenance of Interrogator Sets AN/TPX-19 and AN/TPX-26. This manual also supersedes so much of TB 11-5895-207-10/1, 9 March 1962, as pertains to operation of Radar Set Control Group AN/FPA-14.

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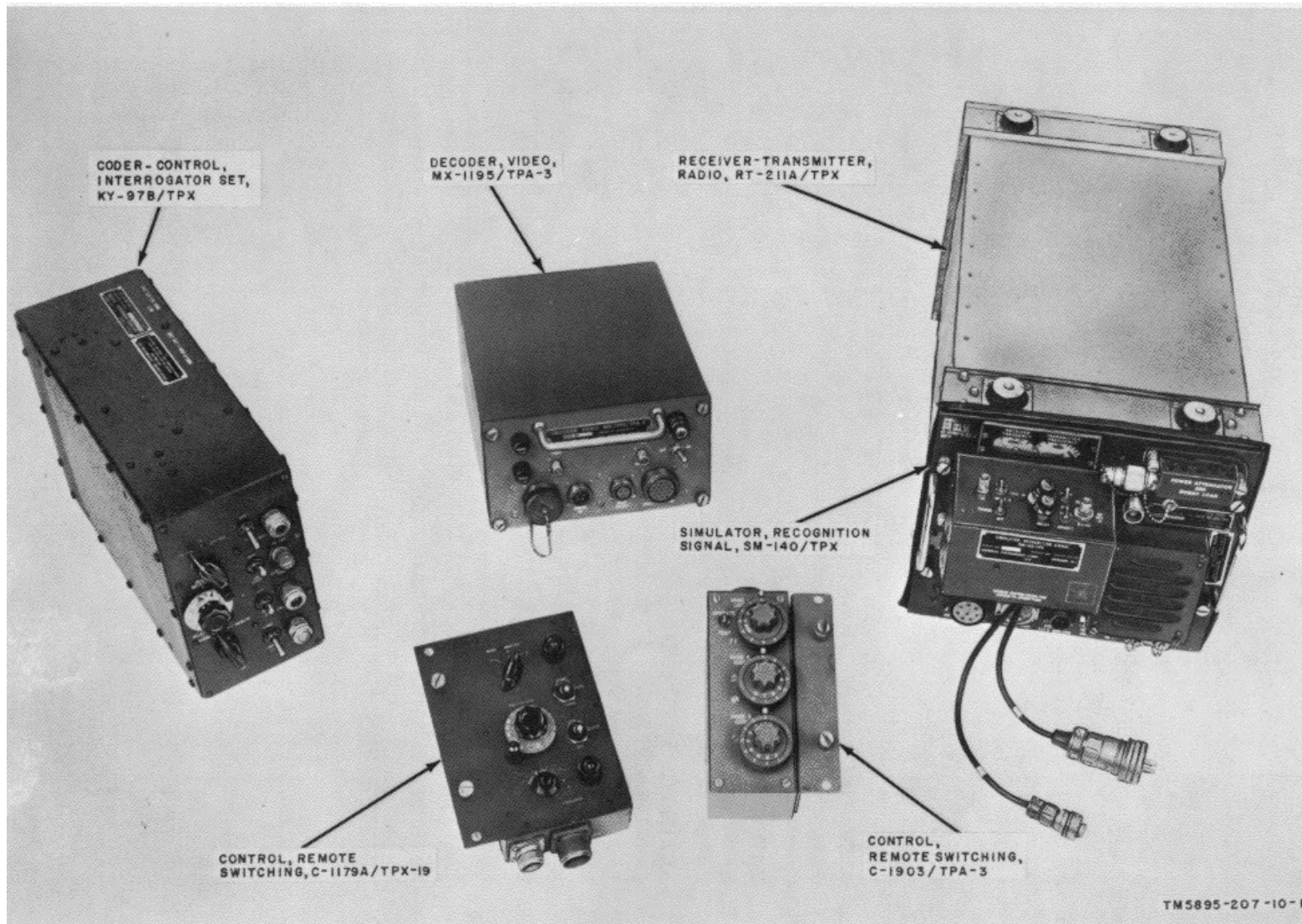


Figure 1. Interrogator Set AN/TPX-26, major components.

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CHAPTER 1 INTRODUCTION

Section I. GENERAL

1. Scope

This manual describes Interrogator Set AN/ TPX-26 and Radar Set Control Group AN/ FPA-14 and covers operation and operator's maintenance of these equipments. It includes operation under usual conditions, cleaning and inspection of the equipment, and replacement of parts available for first echelon maintenance. Interrogator Set AN/TPX-26 is covered in chapters 1 through 3; Radar Set Control Group AN/FPA-14 is covered in paragraphs 44 through 55 (auxiliary equipment). Demolition of materiel to prevent enemy use is covered in chapter 5. A basic issue items list for Interrogator Set AN/TPX-26 is contained in appendix II. A basic issue items list for Radar Set Control Group AN/FPA-14 is contained in appendix III. Installation of the equipment is covered in a higher echelon maintenance manual.

Note. Refer to DA Pam 310-4 to determine what changes to or revisions of this publication are current.

2. Forms and Records

- a. *Unsatisfactory Equipment Reports.* Fill

out and forward DA Form 468 (Unsatisfactory Equipment Report) as prescribed in AR 700-38.

b. *Report of Damaged or Improper Shipment.* Fill out and forward DD Form 6 (Report of Damaged or Improper Shipment) as prescribed in AR 700-58 (Army).

c. *Preventive Maintenance Forms.* Prepare DA Form 11-238 (figs. 21 and 22) (Maintenance Check list for Signal Equipment (Sound Equipment; Radio, Direction Finding, Radar, Carrier, Radiosonde and Television)), in accordance with instructions on the form.

d. *Parts List Form.* Forward DA Form 2028 (Recommended Changes to DA Technical Manual Parts Lists or Supply Manual 7, 8, or 9) direct to the Commanding Officer, U.S. Army Signal Materiel Support Agency, ATTN: SIGMS-ML, Fort Monmouth, N.J., to recommend changes in, or comment on, basic issue items lists or repair parts and special tools lists.

e. *Comments on Manual.* Forward all other comments on this publication direct to the Commanding Officer, U.S. Army Signal Materiel Support Agency, ATTN: SIGMS-PA2d,, Fort Monmouth, N.J.

Section II. DESCRIPTION AND DATA

3. Purpose and Use

Interrogator Set AN/TPX-26 (fig. 1) is a lightweight interrogator set designed for operation in conjunction with associated radar equipment (Radio Set AN/TPS-1D, Radio Set AN/TPS-1G, Radar Set AN/FPS-36, Radar Set AN/FPS-56, and Radar Surveillance Central AN/GSS-1) to aid in identification of friendly aircraft. Interrogator Set AN/TPX26 may also be used with Radar Set AN/FPS71 and with Radar Set AN/FPS-75. The interrogator set, when properly installed and operating, performs the ground station functions of an

identification friend or foe (IFF) system. When an aircraft is detected by the associated radar set, the interrogator set may be operated simultaneously to transmit IFF challenge signals to the aircraft, and receive predesignated IFF reply codes from the airborne transponder of a friendly aircraft. Received reply signals from airborne transponders are amplified, detected, decoded, and applied to the plan position indicator (PPI) of the radar set. If no reply is seen from a properly challenged aircraft, the aircraft is reported as unidentified in accordance with local SOP.

AGO 10081A