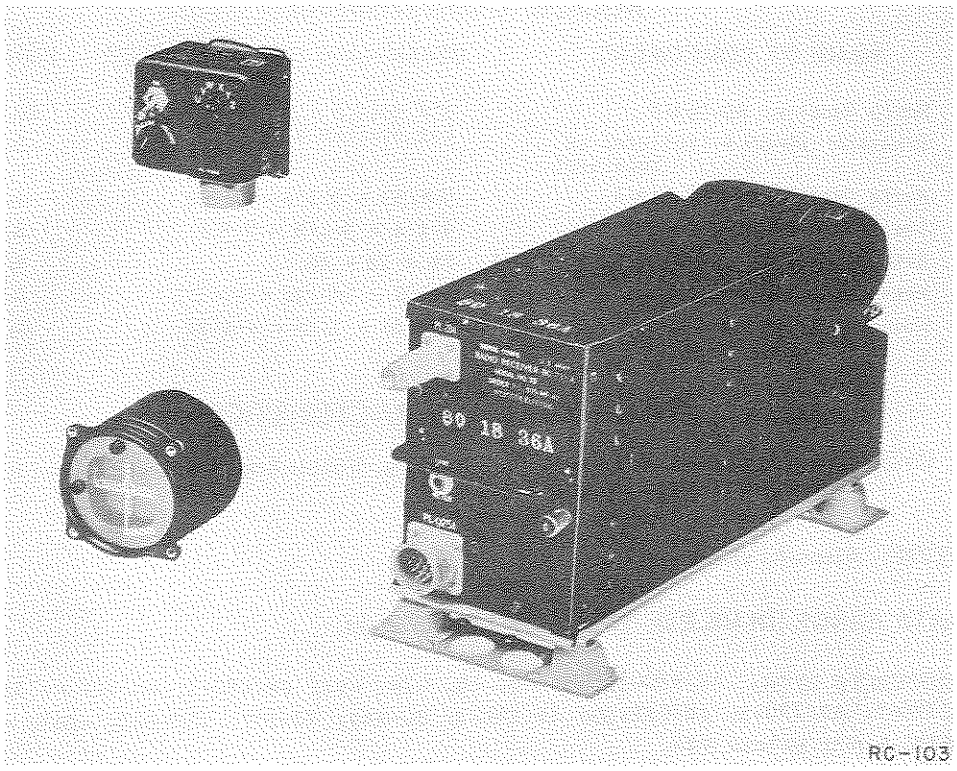
STATUS: Substitute Standard	AN/ARN-TYPE
CLASSIFICATION OF EQUIPMENT: Unclassified	SERVICE TYPE NUMBER: RC-103
USING SERVICE: Air Force	RADIO RECEIVING EQUIPMENT
DATE OF THIS SHEET: 7 Jun 52	



Radio Receiving Equipment RC-103 consists of an airborne receiver with six preset crystal-controlled channels, used for receiving signals transmitted by Army Air Force Instrument Approach System (formerly known as Instrument Landing System SCS-51). It is normally operated by means of a radio control box which provides ON/OFF, volume control, and frequency selection.

Receiver output is usually used to indicate lateral guidance by the vertical pointer of Indicator I-101; however, audio output (at 300 and 4,000 ohm) for voice or tone signals is also provided.

It is used in conjunction with associated (but not supplied) airborne equipment AN/ARN-5, which indicates vertical guidance for aircraft landing operations, in emergency, or under conditions of poor visibility.

Antenna Equipments AN-100 or AN-100-A should be used only for Radio Receiving Equipment RC-103-D; Antenna System AS-27/ARN-5 is used when Radio Receiving Equipment RC-103-D and AN/ARN-5 are used for both horizontal and vertical guidance.

Except for the power requirements Radio Receiving Equipment RC-103-D is interchangeable with RC-103-AZ, RC-103-D requires 72 w of 28-v dc and uses Dynamotor DM-53-A; RC-103-AZ requires 4.5 amp of 14-v, dc, and uses DM-53-AZ. Replacing one dynamotor with the other automatically sets up all the required power connections for the proper functioning of either the RC-103-D or RC-103-AZ.

AN/ARN-TYPE	INSTRUCTION LITERATURE: TO AN-16-40RC-103-2
RC-103 :SERVICE TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
RADIO RECEIVING EQUIPMENT	USING SERVICE : Air Force
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MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Receiver BC-733-D	5 x 13-3/8 x 7-3/32	19.2
1	Dynamotor DM-53-A (Included in receiver)	Not Available	2.9
1	Radio Control Box BC-732-A	3-9/32 x 3-1/4 x 2-5/8	0.56
1 or 2	Indicators I-101-C or I-101-D	3-1/4 x 3-1/4 x 3-3/8	2.06 (each)
1	Antenna Equipment AN-100 or AN-100-A	24 x 12 x 10	4.0
1	Mounting FT-293-A	5-7/8 x 1-7/32 x 13-1/4	1.75
1	Mounting FT-292-A	3-1/16 x 1/16 x 4-1/32	0.07

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally issued to fighters, interceptors, fighter bombers, medium and heavy bombers, and cargo planes.

INSTALLATION: Aircraft, shock mounted.

APPROXIMATE RANGE (IN MILES): (Nominal) Line of sight.

CAN COMMUNICATE WITH: AN/ARC-1, -3, -5, -8, -28, -36; AN/CRC-2; AN/GRC-9; AN/MRC-20, -22; AN/TRC-7; AN/TRQ-1; AN/URT-10; AN/VRC-1; BC-640; RC-257; SCR-522, -542, -573, -575, -624, -643; Wilcox 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 6 preset crystal-controlled channels: 108.5, 108.7, 109.1, 109.5, 109.9, and 110.3.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice or tone.

POWER OUTPUT: Audio: 500 mw into a 300 or 4,000 ohm resistive load
Visual: Indicator I-101-C or I-101-D.

POWER REQUIREMENTS: RC-103-D; 72 w, 28 v (2.6 amp) dc (from Dynamotor DM-53-A)
RC-103-AZ;(4.5 amp) 14 v, dc (from Dynamotor DM-53-AZ).

PHYSICAL CHARACTERISTICS

Radio Receiving Equipment RC-103 measures 24 x 12 x 19 inches, net weight 29.54 pounds, volume 2.09 cu ft. Packed for either domestic or export shipment: total weight 38.40 pounds, total volume 2.31 cu ft. Shipped in 3 packages both domestic and export.