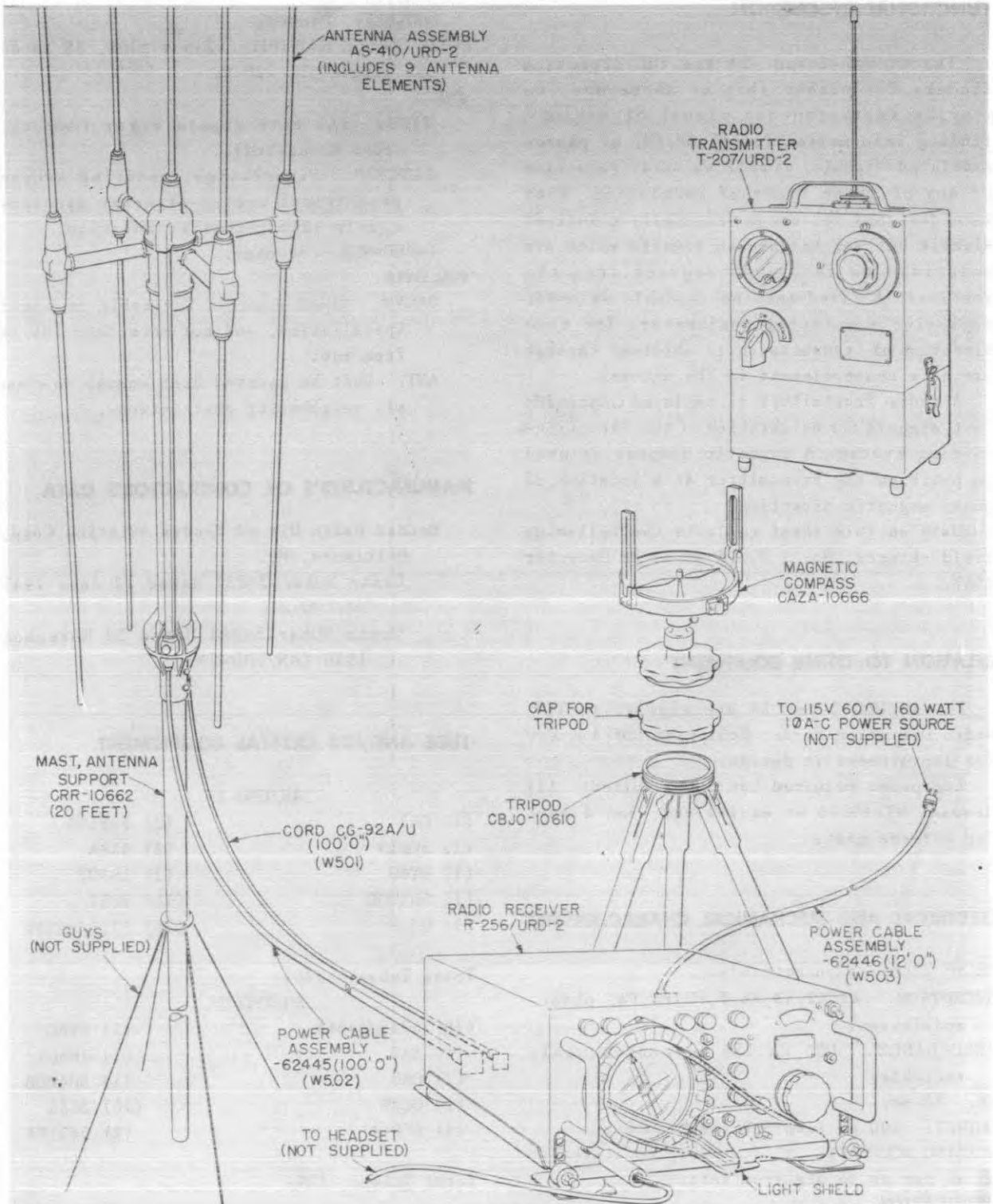


April 1958

DIRECTION FINDER SET

AN/URD-2,-2A



Direction Finder Set AN/URD-2, -2A

AN/URD-2,-2A

DIRECTION FINDER SET

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FUNCTIONAL DESCRIPTION

The AN/URD-2 and -2A are VHF direction finders for either ship or shore use, to provide instantaneous visual direction-finding information for Al, AM, FM, or phase-modulated signals, as well as aural reception of any of these types of modulation. They were designed for use on vertically polarized signals but may be used on signals which are polarized as far as 45 degrees from the vertical. A fixed antenna assembly is used, employing a rotating goniometer. The true direction of transmission is obtained through use of a sense element in the antenna.

A radio Transmitter is employed to provide test signals for calibration of the direction-finding system. A magnetic compass is used to position the transmitter at a location of known magnetic direction.

Data on this sheet reflects the following field changes. No. 1,2,3,4 dated 18 December 1957.

RELATION TO OTHER EQUIPMENT

The AN/URD-2 and 2A are similar to VHF Radio Direction Finder Equipment DBF-1 except for improvement in design.

Equipment Required but not Supplied: (1) Headset NT-49016 or equivalent, and 4 guys for antenna mast.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

RECVR TYPE: Superheterodyne.

RECEPTION: Al, A2, A3, A4, F, F2, F3, F4, phase modulation.

FREQ RANGE: 100 to 156 mc continuously variable.

IF: 12 mc.

OUTPUT: 200 mv into 600 ohm headset.

BEARING ACCURACY: ± 5 deg on sig polarized to as far as 45 deg from vert.

INDICATION

VISUAL: 5 in. CRT.

AUDIBLE: Phones.

POWER SOURCE REQUIRED: 115 v $\pm 10\%$, 55 to 65 cps single ph, 126 W.

ANT

TYPE: 1/2 wave dipole array (Adcock, cross connected).

PATTERN: Figure-eight rotating around geometrical center of array synchronously with goniometer rotation.

IMPEDANCE: 50 ohms.

MTG DATA

RECVR: Shock-mounted for table or shelf installation, and not more than 100 ft from ant.

ANT: Must be mounted high enough to clear all neighboring obstructions.

MANUFACTURER'S OR CONTRACTOR'S DATA

Bendix Radio Div of Bendix Aviation Corp, Baltimore, Md.

Contr NObsr-39237 dated 12 June 1947 (AN/URD-2).

Contr NObsr-52081 dated 28 November 1950 (AN/URD-2A).

TUBE AND/OR CRYSTAL COMPLEMENT

AN/URD-2	
(1) OA3	(2) 5651WA
(1) 5CP1A	(2) 958A
(1) 6Y6G	(1) 1B3GT
(1) 5R4WGB	(10) 2C51
(1) OD3W	(10) 5725/6AS6W

Total Tubes: (30)

AN/URD-2A	
(10) 5725/6AS6W	(1) 6Y6G
(1) 3A5	(1) 1B3GT
(1) OA3	(1) 5R4WGB
(1) OC3W	(10) 2C51
(1) 5CP1A	(2) 5651WA

Total Tubes: (29)

No Crystals.

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DIRECTION FINDER SET

AN/URD-2,-2A

REFERENCE DATA AND LITERATURE

NAVSHIPS 91198, Technical Manual for Direction Finder Set AN/URD-2.
 NAVSHIPS 91521, Technical Manual for Direction Finder Set AN/URD-2A.

TYPE CLASSIFICATION
 DESIGN COGNIZANCE BUSHIPS
 PROCUREMENT COGNIZANCE
 STOCK NO.

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Receivers and Accessories	4.6	13-1/2 x 19 x 31	116
1	Ant Assy	9.83	19 x 19 x 47-1/2	115
1	Radio Xmtr and Accessories	5.79	19 x 21 x 25	102
1	Mast Ant Support and Tripod	3.5	6 x 8 x 129	70
3	Equipment Spares	16.4		320

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Radio Receiver R-256/URD-2* or R-256A/URD-2**	9-5/8 x 16-7/8 x 24-1/2	55
1	Antenna Assembly AS-410/URD-2	14-25/32 x 14-25/32 x 40-3/32	33
1	Radio Transmitter T-207/URD-2* or T-207A/URD-2**	6-15/16 x 9 x 12	11
1	Antenna Support Mast CRR-10662	1-9/10 dia x 3-3/4 x 120	20
1	Tripod - 10610	4-1/4 x 4-1/4 x 60	8
1	Magnetic Compass - 10666	5-3/8 x 5-11/16 dia	2
1	Light Shield	10-7/8 dia	5
1	Cord CG-92A/U c/o (2) RF Plug UG-218/U (1) RF Cable RG-9/U	25/32 dia x 1-3/4	
1	Cable Assy Power -62445 c/o (2) Plug AN3106A-22-4S (1) Cable -491697	1200 lg 1-1/2 dia x 13/16	
1	Set of Equipment Spares		
	NOTES *Supplied w/AN/URD-2 only **Supplied w/AN/URD-2A only		