Radio-Auxiliary
AN/SRA-13

ANTENNA COUPLER GROUP

FUNCTIONAL DESCRIPTION

Antenna Coupler Group AN/SRA-13 is designed for shipboard use, and couples the output of four radio transmitters to a single broadband antenna. It matches the impedance of the broadband antenna to the 50-ohm impedance of the transmission line from the transmitter. Four identical antenna couplers, each designated Antenna Coupler CU-419/SRA-13; Fuse Panel SB-406/SRA and Electrical Equipment Cabinet CY-1670/SRA make up Antenna Coupler Group AN/SRA-13. The four antenna couplers operate in the frequency range of 2 to 6 mc.

No field changes in effect at time of preparation (16 February 1960).

RELATION TO OTHER EQUIPMENT

This equipment supersedes Antenna Multi-coupler CU-301/UR and is used with model TBM or other approved h-f transmitters. Antenna Coupler Group AN/SRA-14 and AN/SRA-15 have identical functions and characteristics, the only differences are the frequency range in which they operate and minor circuit changes.

EQUIPMENT REQUIRED BUT NOT SUPPLIED

(4) Coaxial Line RG-10/U or RG-18/U (length as required); (4) Coaxial Line RG-10/U (1 to 2 ft); (1) Coaxial Line RG-18/U (length as required); (4) Adapter UG-982/U; (4) Connector UG-23/U; (4) Connector UG-941A/U; (4) Connector UG-27A/U; (1) Connector UG-154/U; (1) Power Line (length as required); (1) Primary Power Switch (6 amp toggle).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

POWER SUPPLY: 115 v, 60 cy, single ph.
FREQUENCY RANGE: 2 to 6 mc.
TUNING BAND: One band, continuously vari-
# ANTENNA COUPLER GROUP

## Radio-Auxiliary

### AN/SRA-13

## SHIPPING DATA

<table>
<thead>
<tr>
<th>NUMBER OF BOXES</th>
<th>CONTENTS AND IDENTIFICATION</th>
<th>VOLUME (Cu.Ft.)</th>
<th>OVERALL DIMENSIONS (inches)</th>
<th>WEIGHT PACKED (Ibs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Antenna Coupler Group AN/SRA-13</td>
<td>18.8</td>
<td>22 X 29 X 51</td>
<td>416</td>
</tr>
</tbody>
</table>

## EQUIPMENT SUPPLIED DATA

<table>
<thead>
<tr>
<th>QUANTITY PER EQUIPT</th>
<th>NAME AND NOMENCLATURE</th>
<th>OVERALL DIMENSIONS (inches)</th>
<th>WEIGHT (Ibs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Antenna Coupler Group AN/SRA-13 includes:</td>
<td>20-1/2 X 26-1/4 X 46-3/4</td>
<td>176.5</td>
</tr>
<tr>
<td>4</td>
<td>Antenna Coupler CU-419/SRA-13</td>
<td>7-23/32 X 18-3/16 X 24-3/4</td>
<td>43</td>
</tr>
<tr>
<td>1</td>
<td>Fuse Panel SB-406/SRA</td>
<td>10-3/8 X 11-7/32 X 24-3/4</td>
<td>11.5</td>
</tr>
<tr>
<td>1</td>
<td>Electrical Equipment Cabinet CY-1670/SRA</td>
<td>20-1/2 X 26-1/4 X 46-3/4</td>
<td>122.5</td>
</tr>
<tr>
<td>2</td>
<td>Technical Manual NAVSHIPS 92746</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The AN/SRA-13A is designed for shipboard use. The coupler group is capable of coupling four transmitters into a single broadband antenna. The coupler group must be operated independently with a broadband antenna designed to produce a voltage standing wave ratio no greater than 3 to 1 over its frequency at the output terminal of the coupler group. Each transmitter operating with a coupler group must be set to operate at channels spaced at least 10 per cent from any other frequency in the group. The principal function of this equipment is to provide an efficient means for operating, simultaneously, several transmitters, having output power up to 500 watts, into a single broadband antenna.

No field changes in effect at time of preparation (29 November 1960).

TECHNICAL CHARACTERISTICS:

TYPE OF INSTALLATION: Shipboard.
AN/SRA-13A ANTENNA COUPLER GROUP

TUNING BAND
NUMBER OF BANDS: One band, continuously variable, across the frequency range of each coupler group.

IMPEDANCE
INPUT IMPEDANCE: 50 ohms.
OUTPUT IMPEDANCE: 50 ohms.

VOLTAGE ISOLATION RATIO: Between adjacent channels for 10% frequency separation, 15 to 1 or greater.

METHOD OF COUPLING: Inductive capacitive.

OPERATING FREQUENCY RANGE: 2 to 6 mc.
OPERATING POWER RQMT: 115 v ac, 60 cps, single ph.

RELATION TO OTHER EQUIPMENT:

The AN/SRA-13A is used with but not part of Radio communication Equipment.
The AN/SRA-13A is similar to the AN/SRA-14A and the AN/SRA-15A except that they operate in different frequency ranges.

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

(4) Coaxial Line RG-10/U or RG-18/U (length as required); (4) Coaxial Line RG-10/U (1 to 2 ft 14); (1) Coaxial Line RG-18/U (length as required); (4) Adapter UG-982/U or equal; (4) Connector UG-23/U or equal; (4) Connector UG-801A/U or equal; (1) Connector UG-154/U or UG-216/U; (1) Power Line (length as required); (1) Primary Power Switch (6 amp toggle switch).

MAJOR COMPONENTS

<table>
<thead>
<tr>
<th>QTY</th>
<th>ITEM</th>
<th>STOCK NUMBERS</th>
<th>DIMENSIONS (INCHES)</th>
<th>WEIGHT (LBS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Coupler Group AN/SRA-13A</td>
<td>20-1/2 x 26-1/4 x 46-3/4</td>
<td>176-1/2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Coupler, Antenna CU-419/SRA-13</td>
<td>7-23/32 x 18-3/16 x 24-3/4</td>
<td>43 ea</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Panel Fuse SB-406/SRA</td>
<td>10-3/8 x 11-7/32 x 24-3/4</td>
<td>11-1/2</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Cabinet Electrical Cabinet CY-1670A/SRA</td>
<td>20-1/2 x 26-1/4 x 46-3/4</td>
<td>122-1/2</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Technical Manual NAVSHIPS 92746</td>
<td>1/2 x 9 x 11-1/2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

REFERENCE DATA AND LITERATURE:


TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: None used.

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.
### Shipping Data

<table>
<thead>
<tr>
<th>PKGS</th>
<th>Volume (cu ft)</th>
<th>Weight (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18.8</td>
<td>416</td>
</tr>
</tbody>
</table>

### Procurement Data

- **Procuring Service:**
- **Design Cog:** USN, BuShips
- **Spec A/Dr DWG:** SHIPS-C-2888

### Contractor

<table>
<thead>
<tr>
<th>Contractor</th>
<th>Location</th>
<th>Contract or Order No.</th>
<th>Approx. Unit Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Granite State Machine Company, Incorporated</td>
<td>Manchester, New Hampshire</td>
<td>NObsr-75524, 18 August 1958</td>
<td></td>
</tr>
</tbody>
</table>
ANTENNA COUPLER GROUP

Radio-Auxiliary
AN/SRA-13B

Antenna Coupler Group AN/SRA-13B
ANTENNA COUPLER GROUP

FUNCTIONAL DESCRIPTION

The AN/SRA-13B is designed for shipboard use. It provides impedance match between transmitter(s) and antenna. The AN/SRA-13B has been redesigned so, toggle switches and meters (with associated circuitry) provide incident power information as well as reflected power data.

No field changes in effect at time of preparation (12 January 1961).

RELATION TO OTHER EQUIPMENT

The AN/SRA-13B is virtually identical to AN/SRA-13 and AN/SRA-13A models, except that the actual parts comprising the redesigned area are not interchangeable with corresponding parts in models AN/SRA-13 and AN/SRA-13A. It is used with radio communications equipment.

EQUIPMENT REQUIRED BUT NOT SUPPLIED

(4) Coaxial Line RG-10/U or RG-18/U (Length as required), (4) Coaxial Line RG-10 (1 to 2 ft), (1) Coaxial Line RG-18/U (Length as required), (4) Adapter UG-982/U or equal, (4) Connector UG-23/U or equal, (4) Connector UG-941A/U or equal, (4) Connector UG-27A/U or equal, (1) Connector UG-154/U or UG-216/U, (1) Power Line as required (Length as required), (1) Primary Power Switch (6 amp toggle switch).

ELECTRICAL AND MECHANICAL CHARACTERISTICS


METHOD OF TUNING: Variable.

METHOD OF COUPLING: Inductive-Capacitive.

INPUT IMPEDANCE: 50 ohms.

OUTPUT IMPEDANCE: 50 ohms.

VOLTAGE ISOLATION RATIO BETWEEN ADJACENT CHANNELS: 15 to 1.

POWER HANDLING ABILITY: Simultaneous coupling of a maximum of 500 W, r-f power, 100% amplitude modulated from each of four transmitters to a single antenna.

EFFICIENCY: Not less than 70%.

TUNING BAND: One band continuously variable across the frequency range of 2 to 6 mc.

FREQUENCY RANGE: 2 to 6 mc.

OPERATING POWER RQMT: 115 v ac, 60 cps, single ph, 500 W.

MANUFACTURER'S OR CONTRACTOR'S DATA

Granite State Machine Co., Inc., Manchester, N.H.
Dwg No. 3-0-100.
Contract NObar-81222, dated 16 March 1960.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes and/or Crystals used.

REFERENCE DATA AND LITERATURE

<table>
<thead>
<tr>
<th>QUANTITY PER EQUIPT</th>
<th>NAME AND NOMENCLATURE</th>
<th>OVERALL DIMENSIONS (inches)</th>
<th>WEIGHT (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Antenna Coupler Group AN/SRA-13B</td>
<td>20 x 26-1/4 x 46-1/2</td>
<td>309</td>
</tr>
<tr>
<td>1</td>
<td>Technical Manual for Antenna Coupler Groups AN/SRA-13, -14, -15, NAVSHIPS 92746</td>
<td>1/2 x 8 x 11-1/2</td>
<td>1/4</td>
</tr>
</tbody>
</table>
ANTENNA COUPLER GROUP

Antenna Coupler Group AN/SRA-14
Radio-Auxiliary

ANTENNA COUPLER GROUP

AN/SRA-14

FUNCTIONAL DESCRIPTION

Antenna Coupler Group AN/SRA-14 is designed for shipboard use, and couples the output of four radio transmitters to a single broadband antenna. It matches the impedance of the broadband antenna to the 50-ohm impedance of the transmission line from the transmitter. Four identical antenna couplers, each designated Antenna Coupler CU-420/SRA-14; Fuse Panel SB-406/SRA and Electrical Equipment Cabinet CY-1670/SRA make up Antenna Coupler Group AN/SRA-14. The four antenna couplers operate in the frequency range of 4 to 12 mc.

No field changes in effect at time of preparation (16 February 1960).

POWER HANDLING ABILITY: Simultaneous coupling of four 500 watt, 100 percent amplitude modulated, h-f transmitters.

INPUT IMPEDANCE: 50 ohms.

OUTPUT IMPEDANCE: 50 ohms.

EFFICIENCY: Not less than 68%.

VOLTAGE ISOLATION RATIO BETWEEN ADJACENT CHANNELS: 15 to 1.

ELECTRICAL CHARACTERISTICS OF ANTENNA: Broadband antenna with impedance characteristic such that VSWR does not exceed 3 to 1, related to 50 ohms, for the frequency range.

INSTALLATION: Shipboard.

FOR USE WITH TRANSMITTERS: Models TBM, TBK, TCK, AN/URT-2, 3, 4 and AN/SRT-14, 15, 16.

RELATION TO OTHER EQUIPMENT

This equipment supersedes Antenna Multi-coupler CU-302/UR and is used with model TBM or other approved h-f transmitters. Antenna Coupler Group AN/SRA-13 and AN/SRA-15 have identical functions and characteristics, the only differences are the frequency range in which they operate and minor circuit changes.

EQUIPMENT REQUIRED BUT NOT SUPPLIED

(4) Coaxial Line, RG-10/U or RG-18/U (length as required); (4) Coaxial Line RG-10/U (1 to 2 ft); (1) Coaxial Line RG-18/U (length as required); (4) Adapter UG-982/U; (4) Connector UG-23/U; (4) Connector UG-941A/U; (4) Connector UG-27A/U; (1) Connector UG-154/U; (1) Power Line (length as required); (1) Primary Power Switch (6 amp toggle).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

POWER SUPPLY: 115 v, .60 cy, single ph.

FREQUENCY RANGE: 4 to 12 mc.

TUNING BAND: One band, continuously variable.


MANUFACTURER'S OR CONTRACTOR'S DATA

NEMS-CLARKE Inc., Silver Spring, Md.

Part/Dwg No. AC-13,051.

Contract NObsr-63422, dated 6 January 1953.

Contract NObsr-75292.

Contract NObsr-75797.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

### SHIPPING DATA

<table>
<thead>
<tr>
<th>NUMBER OF BOXES</th>
<th>CONTENTS AND IDENTIFICATION</th>
<th>VOLUME (Cu.Ft.)</th>
<th>OVERALL DIMENSIONS (inches)</th>
<th>WEIGHT PACKED (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Antenna Coupler Group AN/SRA-14</td>
<td>18.8</td>
<td>22 X 29 X 51</td>
<td>390</td>
</tr>
</tbody>
</table>

### EQUIPMENT SUPPLIED DATA

<table>
<thead>
<tr>
<th>QUANTITY PER EQUIPT</th>
<th>NAME AND NOMENCLATURE</th>
<th>OVERALL DIMENSIONS (inches)</th>
<th>WEIGHT (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Antenna Coupler Group AN/SRA-14 Includes:</td>
<td>20-1/2 X 26-1/4 X 46-3/4</td>
<td>176.5</td>
</tr>
<tr>
<td>4</td>
<td>Antenna Coupler CU-420/SRA-14</td>
<td>7-23/32 X 18-3/16 X 24-3/4</td>
<td>36.5</td>
</tr>
<tr>
<td>1</td>
<td>Fuse Panel SB-406/SRA</td>
<td>10-3/8 X 11-7/32 X 24-3/4</td>
<td>11.5</td>
</tr>
<tr>
<td>1</td>
<td>Electrical Equipment Cabinet CY-1670/SRA</td>
<td>20-1/2 X 26-1/4 X 46-3/4</td>
<td>122.5</td>
</tr>
<tr>
<td>2</td>
<td>Technical Manual NAVSHIPS 92746</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6 July 1962

ANTENNA COUPLER GROUP AN/SRA-14A

Cog Service: FSN: 5985-710-0099
Functional Class: USA USN USAF

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER: Granite State Machine Company.
(No Illustration Available)

FUNCTIONAL DESCRIPTION:

The AN/SRA-14A is designed for shipboard use. The coupler group is capable of coupling four transmitters into a single broadband antenna. The coupler group must be operated independently with a broadband antenna designed to produce a voltage standing wave ratio no greater than 3 to 1 over its frequency range at the output terminal of the coupler group. Each transmitter operating with a coupler group must be set to operate at channels spaced at least 10 per cent from any other frequency in the group. The principal function of this equipment is to provide an efficient means for operating, simultaneously, several transmitters, having output power up to 500 watts into a single broadband antenna.

No field changes in effect at time of preparation (29 November 1960).

TECHNICAL CHARACTERISTICS:

TYPE OF INSTALLATION: Shipboard.

METHOD OF COUPLING: Inductive-capacitive.


TUNING BAND

NUMBER OF BANDS: One band, continuously variable across the frequency range of each coupler group.

IMPEDEANCE

INPUT IMPEDANCE: 50 ohms.
OUTPUT IMPEDANCE: 50 ohms.

VOLTAGE ISOLATION RATIO: Between adjacent channels for 10% frequency separation, 15 to 1 or greater.

OPERATING FREQUENCY RANGE: 4 to 12 mc.

OPERATING POWER REQMT: 115 vac, 60 cps, single ph.

RELATION TO OTHER EQUIPMENT:

The AN/SRA-14A is similar to the AN/SRA-13A and AN/SRA-15A except they operate in different frequency ranges.

The AN/SRA-14A is designed to be used with but not part of Radio Communications Equipment.

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

(4) Coaxial Line RG-10/U or RG-18/U (length as required); (4) Coaxial Line RG-10 (1 to 2 ft); (1) Coaxial Line RG-18/U (length as required); (4) Adapter UG-982/U or equal; (4) Connector UG-23/U or equal; (4) Connector UG-941A/U or equal; (4) Connector UG-27A/U or equal; (1) Connector UG-154/U or UG-216/U; (1) Power Line (length as required); (1) Primary Power Switch (6 amp toggle switch).
# AN/SRA-14A ANTENNA COUPLER GROUP

## MAJOR COMPONENTS

<table>
<thead>
<tr>
<th>QTY</th>
<th>ITEM</th>
<th>STOCK NUMBERS</th>
<th>DIMENSIONS (INCHES)</th>
<th>WEIGHT (LBS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Antenna Coupler Group AN/SRA-14A</td>
<td></td>
<td>20-1/2 x 26-1/4 x 46-3/4</td>
<td>176-1/2</td>
</tr>
<tr>
<td>4</td>
<td>Coupler, Antenna CU-420/SRA-14</td>
<td></td>
<td>7-23/32 x 18-3/16 x 24-3/4</td>
<td>36-1/2 ea.</td>
</tr>
<tr>
<td>1</td>
<td>Panel, Fuse SB-406/SRA</td>
<td></td>
<td>10-3/8 x 11-7/32 x 24-3/4</td>
<td>11-1/2</td>
</tr>
<tr>
<td>1</td>
<td>Cabinet, Electrical Equipment CY-1670A/SRA</td>
<td></td>
<td>20-1/2 x 26-1/4 x 46-3/4</td>
<td>122-1/2</td>
</tr>
<tr>
<td>2</td>
<td>Technical Manual NAVSHIPS 92746</td>
<td></td>
<td>1/2 x 9 x 11-1/2</td>
<td></td>
</tr>
</tbody>
</table>

## REFERENCE DATA AND LITERATURE:


## TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: None used.
CRYSALS: None used.
SEMI-CONDUCTORS: None used.

## SHIPPING DATA

<table>
<thead>
<tr>
<th>PKGS</th>
<th>VOLUME (CU FT)</th>
<th>WEIGHT (LBS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18.8</td>
<td>390</td>
</tr>
</tbody>
</table>

## PROCUREMENT DATA

PROCURING SERVICE: SHIPS-C-2888
SPEC &/OR DWG: SHIPS-C-2888

<table>
<thead>
<tr>
<th>CONTRACTOR</th>
<th>LOCATION</th>
<th>CONTRACT OR ORDER NO.</th>
<th>APPROX. UNIT COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Granite State Machine Co.</td>
<td>Manchester, New Hampshire</td>
<td>N0bsr-75524,</td>
<td>18 August 1958</td>
</tr>
<tr>
<td>Dwg no. 4-0-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.2 AN/SRA-14A: 2
AN/SRA-14B
ANTENNA COUPLER GROUP

FUNCTIONAL DESCRIPTION

The AN/SRA-14B is designed for shipboard use. It provides impedance match between transmitter(s) and antenna. The AN/SRA-14B has been redesigned so toggle switches and meters (with associated circuitry) provide incident power information as well as reflected power data.

No field changes in effect at time of preparation (11 January 1961).

RELATION TO OTHER EQUIPMENT

The AN/SRA-14B is electrically and physically interchangeable with AN/SRA-14 and AN/SRA-14A. Actual parts in the redesigned area of the AN/SRA-14B are not interchangeable with corresponding part in AN/SRA-14 and AN/SRA-14A.

EQUIPMENT REQUIRED BUT NOT SUPPLIED


ELECTRICAL AND MECHANICAL CHARACTERISTICS

TYPE OF TUNING: Variable.
METHOD OF COUPLING: Inductive-Capacitive.
INPUT IMPEDANCE: 50 ohms.

OUTPUT IMPEDANCE: 50 ohms.
VOLTAGE ISOLATION RATIO BETWEEN ADJACENT CHANNELS: 15 to 1.
POWER HANDLING ABILITY: Simultaneous coupling of a maximum of 500 W, r-f power, 100% amplitude modulated, from each of four transmitters to a single antenna.
EFFICIENCY: Not less than 68%.
TUNING BAND: One band continuously variable across the frequency range of 4 to 12 mc.
FREQUENCY RANGE: 4 to 12 mc.
OPERATING POWER REQMT: 115 v ac, 60 eps., single ph, 500 W.

MANUFACTURER'S OR CONTRACTOR'S DATA

Granite State Machine Co., Inc., Manchester, N.H.
Dwg No. 4-0-100.
Contract NObar-81222, dated 16 March 1960.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes and/or Crystals used.

REFERENCE DATA AND LITERATURE


TYPE CLASSIFICATION (NAVY)
DESIGN COGNIZANCE NAVY BUSHIPS
PROCUREMENT COGNIZANCE SHIPS-C-3413 AMEND 1
STOCK NO.
R.D.I. IDENT. NO.

SHIPPING DATA

<table>
<thead>
<tr>
<th>NUMBER OF BOXES</th>
<th>CONTENTS AND IDENTIFICATION</th>
<th>VOLUME (Cu.Ft.)</th>
<th>OVERALL DIMENSIONS (inches)</th>
<th>WEIGHT PACKED (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Antenna Coupler Group AN/SRA-14B</td>
<td>24.8</td>
<td>24 X 30 X 50</td>
<td>400</td>
</tr>
</tbody>
</table>

EQUIPMENT SUPPLIED DATA

<table>
<thead>
<tr>
<th>QUANTITY PER EQUIPT</th>
<th>NAME AND NOMENCLATURE</th>
<th>OVERALL DIMENSIONS (inches)</th>
<th>WEIGHT (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Antenna Coupler Group AN/SRA-14B</td>
<td>20 X 26-1/4 X 46-1/2</td>
<td>290</td>
</tr>
<tr>
<td>1</td>
<td>Technical Manual for Antenna Coupler Groups AN/SRA-13, -14, -15 NAVSHIPS 92746</td>
<td>1/2 X 8 X 11-1/2</td>
<td>1/4</td>
</tr>
</tbody>
</table>

1.2 AN/SRA-14B: 2
**ANTENNA COUPLER GROUP**

**FUNCTIONAL DESCRIPTION**

Antenna Coupler Group AN/SRA-15 is designed for shipboard use, and couples the output of four radio transmitters to a single broadband antenna. It matches the impedance of the broadband antenna to the 50-ohm impedance of the transmission line from the transmitter. Four identical antenna couplers, each designated Antenna Coupler CU-421/SRA-15; Fuse Panel SB-406/SRA and Electrical Equipment Cabinet CY-1670/SRA make up Antenna Coupler Group AN/SRA-15. The four antenna couplers operate in the frequency range of 6 to 18 mc.

No field changes in effect at time of preparation (16 February 1960).

**RELATION TO OTHER EQUIPMENT**

This equipment supersedes Antenna Multi-coupler CU-303/UR and is used with model TBM or other approved h-f transmitters. Antenna Coupler Group AN/SRA-13 and AN/SRA-14 have identical functions and characteristics, the only differences are the frequency range in which they operate and minor circuit changes.

**EQUIPMENT REQUIRED BUT NOT SUPPLIED**

(4) Coaxial Line RG-10/U or RG-18/U (length as required); (4) Coaxial Line RG-10/U (1 to 2 ft); (1) Coaxial Line RG-18/U (length as required); (4) Adapter UG-982/U; (4) Connector UG-23/U; (4) Connector UG-941A/U; (4) Connector UG-27A/U; (1) Connector UG-154/U; (1) Power Line (length as required); (1) Primary Power Switch (6 amp toggle).

**ELECTRICAL AND MECHANICAL CHARACTERISTICS**

**POWER SUPPLY:** 115 v, 60 cy, single ph.
**FREQUENCY RANGE:** 6 to 18 mc.
**TUNING BAND:** One band, continuously variable.

**TYPE OF FREQUENCY CONTROL:** Manual.
**POWER HANDLING ABILITY:** Simultaneous coupling for four 500 watt, 100 percent amplitude modulated, h-f transmitters.
**INPUT IMPEDANCE:** 50 ohms.
**OUTPUT IMPEDANCE:** 50 ohms.
**EFFICIENCY:** Not less than 60%.
**VOLTAGE ISOLATION RATIO BETWEEN ADJACENT CHANNELS:** 15 to 1.
**ELECTRICAL CHARACTERISTICS OF ANTENNA:**
Broadband antenna with impedance characteristic such that VSWR does not exceed 3 to 1, related to 50 ohms, for the frequency range.
**INSTALLATION:** Shipboard.
**FOR USE WITH TRANSMITTERS:** Models TBM, TBK, TCK, AN/URT-2, 3, 4 and AN/SRT-14, 15, 16.

**MANUFACTURER'S OR CONTRACTOR'S DATA**

NEMS-CLARKE Inc., Silver Springs, Md.
Part/Dwg No. AC-13,052.
Contract NObsr-63422, dated 6 January 1953.
Contract NObsr-75292.
Contract NObsr-75797.

**TUBE AND/OR CRYSTAL COMPLEMENT**

No Electron Tubes or Crystals used.

**REFERENCE DATA AND LITERATURE**