17 August 1962 Cog Service: USN

FSN:

ANTENNA ASSEMBLY AS-1018/URC

Functional Class:

USA

USN

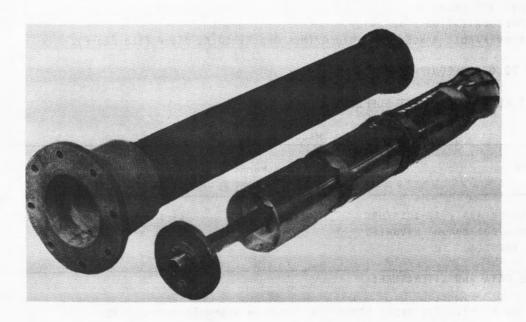
USAF

TYPE CLASS:

Used by

Used by

MANUFACTURER'S NAME/CODE NUMBER: CHU Associates Inc., (04953).



Antenna Assembly AS-1018/URC

#### FUNCTIONAL DESCRIPTION:

The Antenna Assembly AS-1018/URC is a broad-band, Ultra-High-Frequency (UHF), communications antenna used to transmit rf energy in the frequency range of 225 to 400 megacycles (MC). It provides essentially hemispherical radiation coverage with a horizontal radiation pattern omnidirectional to within porm 1.0 decibels (DB). The antenna is vertically polarized, and has lower half power points on or below the horizon. The vertical upward propagation, needed to fill the cone of silence, is horizontal polarized. The line on the mast cap of the AS-1018/URC indicates the direction of this horizontal polarization. The AS-1018/URC consists basically of the internal transmission line, the antenna (a two-element colinear dipole array), and the polyester fiberglass mast which completely encloses them.

No field changes in effect at time of preparation (5 June 1962).

## AS-1018/URC ANTENNA ASSEMBLY

### TECHNICAL CHARACTERISTICS:

FREQUENCY RANGE: 225 to 400 mc.
POWER RATING: 2 kw average.

POLARIZATION: vertically polarized.

GAIN: Porm 5 db above an isotropic source.

INPUT IMPEDANCE: 50 ohms.

VOLTAGE STANDING WAVE RATIO: 2:1 max (VSWR).

CIRCULARITY: Omnidirectional horizontally to within porm 1.0 db.

TILT OF PATTERN: Antenna beam is tilted upward to place lower half power point on or below

horizon.

WIND LOAD: 120 knots.

MAXIMUM PRESSURIZATION: 15 psig.

AMBIENT TEMPERATURE RANGE: M32 deg C (M26 deg F) to 52 deg C (125 deg F).

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

#### MAJOR COMPONENTS

| QTY | ITEM                               | STOCK NUMBERS | DIMENSIONS (INCHES)      | WEIGHT<br>(LBS) |
|-----|------------------------------------|---------------|--------------------------|-----------------|
| 1   | Antenna Ass'y AS-1018/URC          |               | 13-1/2 × 13-1/2 × 72-3/8 | 50              |
| 2   | Technical Manual NAVSHIPS 94041(A) |               | 1/4 × 8-1/2 × 11         |                 |

### REFERENCE DATA AND LITERATURE:

NAVSHIPS 94041(A): Technical Manual for Antenna Assembly AS-1018/URC.

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

TUBES: None used.

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

## SHIPPING DATA

| PKGS   | VOLUME (CU | FT) | WEIGHT (LBS) |
|--------|------------|-----|--------------|
| 1-1-11 |            |     |              |
| 1      | 11 6       |     | 118          |

ANTENNA ASSEMBLY AS-1018/URC

# PROCUREMENT DATA

PROCURING SERVICE: USN SPEC &/OR DWG:

DESIGN COG: USN, BuShips

SPEC afor DWG.

| CONTRACTOR          | LOCATION            | CONTRACT OR ORDER NO. | APPROX.<br>UNIT COST |
|---------------------|---------------------|-----------------------|----------------------|
| CHU Associates Inc. | Littleton, Mass.    | N0bsr-85111,          |                      |
|                     | HIGH MITTERS SAFETY | 11 May 1961           |                      |