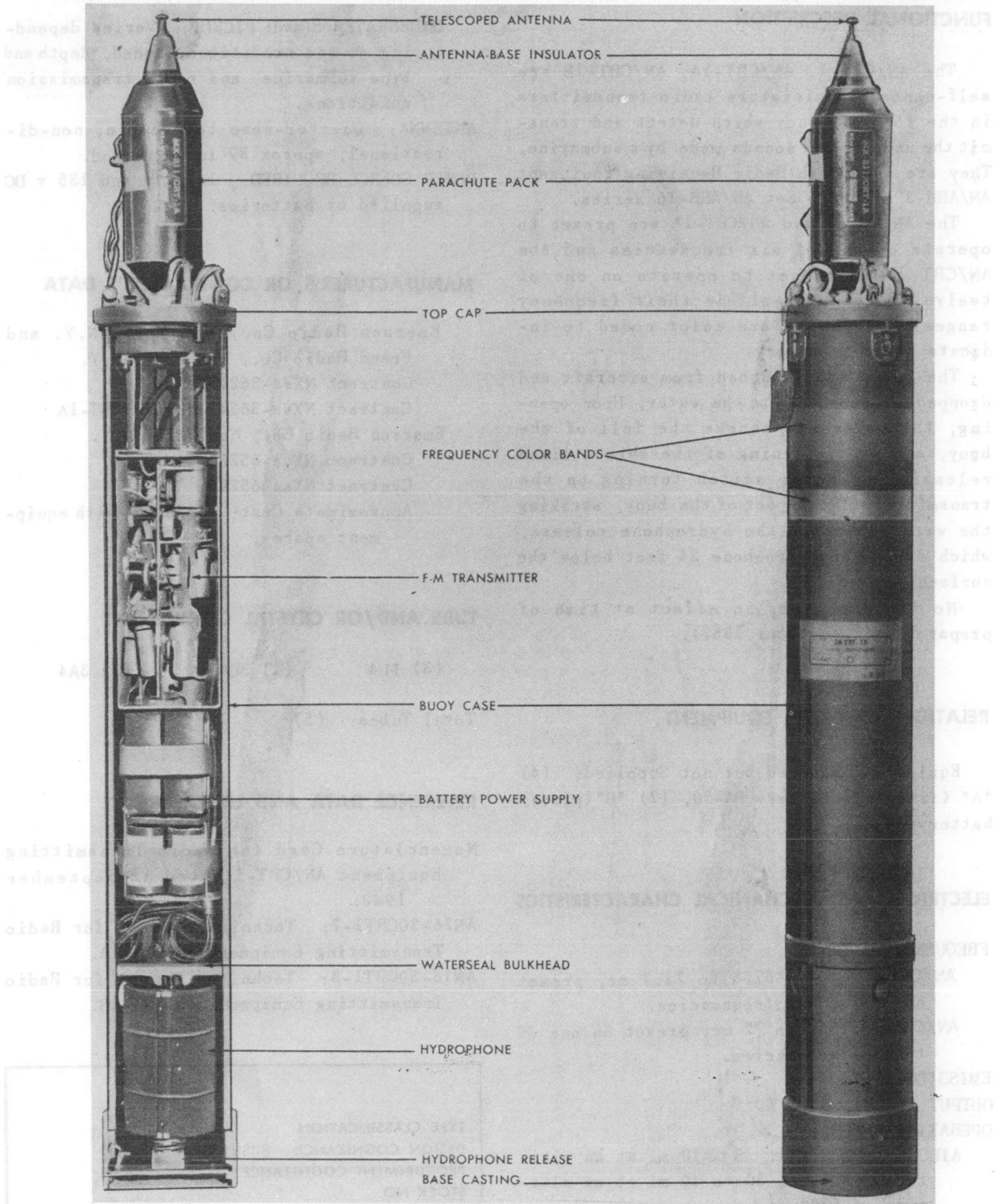


RADIO TRANSMITTING EQUIPMENT AN/CRT-1, -1A, -1B



Radio Transmitting Equipment AN/CRT-1, -1A, -1B

AN/CRT-1, -1A, -1B RADIO TRANSMITTING EQUIPMENT**FUNCTIONAL DESCRIPTION**

The AN/CRT-1, AN/CRT-1A, AN/CRT-1B are self-contained miniature radio transmitters in the form of a buoy which detect and transmit the underwater sounds made by a submarine. They are used with Radio Receiving Equipment AN/ARR-3 or Radio Set AN/ARR-16 series.

The AN/CRT-1 and AN/CRT-1A are preset to operate on one of six frequencies and the AN/CRT-1B is preset to operate on one of twelve frequencies within their frequency ranges. Both units are color coded to indicate their frequency.

The buoys are launched from aircraft and dropped by parachute to the water. Upon opening, the parachute checks the fall of the buoy, and by tightening of the shroud lines releases the power switch turning on the transmitter. The impact of the buoy, striking the water operates the hydrophone release, which drops the hydrophone 24 feet below the surface.

No field changes in effect at time of preparation (2 October 1957).

RELATION TO OTHER EQUIPMENT

Equipment Required but not Supplied: (4) "A" (filament) battery BA-30, (2) "B" (plate) battery BA-51.

ELECTRICAL AND MECHANICAL CHARACTERISTICS**FREQUENCY RANGE**

AN/CRT-1, -1A: 67.6 to 71.7 mc, preset on one of six frequencies.

AN/CRT-1B: 62 to 72 mc, preset on one of twelve frequencies.

EMISSION: F3.

OUTPUT POWER: 0.08 W.

OPERATING RANGE

AIRCRAFT RECEIVER: 5 to 10 mi at an altitude of 300 ft, 30 to 40 mi at an altitude of 5000 ft.

VESSEL RECEIVER: 1 to 6 mi approximately.

UNDERWATER SOUND PICKUP: Varies depending on sea conditions, speed, depth and type submarine, and radio transmission conditions.

ANTENNA: Quarter-wave telescopic, non-directional, approx 39 in. extended.

POWER SOURCE REQUIRED: 1-1/2 v and 135 v DC supplied by batteries.

MANUFACTURER'S OR CONTRACTOR'S DATA

Emerson Radio Co., New York, N.Y. and
Freed Radio Co., New York, N.Y.
Contract NXsa-36246 and
Contract NXsa-36247 for AN/CRT-1A
Emerson Radio Co., New York, N.Y.
Contract NXsa-65283 and
Contract NXsa-65296.
Approximate Cost: \$320.00, with equipment spares.

TUBE AND/OR CRYSTAL COMPLEMENT

(3) 1L4 (1) 3Q4 (1) 3A4

Total Tubes: (5)

REFERENCE DATA AND LITERATURE

Nomenclature Card for Radio Transmitting Equipment AN/CRT-1 dated 12 September 1948.

AN16-30CRT1-7: Technical Manual for Radio Transmitting Equipment AN/CRT-1A.

AN16-30CRT1-3: Technical Manual for Radio Transmitting Equipment AN/CRT-1B.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE
STOCK NO.

April 1958

RADIO TRANSMITTING EQUIPMENT AN/CRT-1, -1A, -1B

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Master Shipping Carton containing (3) Radio Transmitters AN/CRT-1 AN/CRT-1A AN/CRT-1B	3.66 3.40	7 X 19-1/2 X 46-1/2 7 X 20 X 43-1/2	63.5 61.0

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Radio Transmitting Equipment AN/CRT-1 or AN/CRT-1A or AN/CRT-1B	5-1/4 dia X 40-1/2 5-1/2 dia X 41	16 16