TECHNICAL MANUAL

for

MARINE RADIO SYSTEM

MODEL MRS-2

THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, N.Y. OTTAWA, CANADA

TECHNICAL MANUAL

for

MARINE RADIO SYSTEM

MODEL MRS-2

THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, N.Y. **OTTAWA, CANADA**

Issue Date: July 10, 1967

NOTICE

FOREWORD

Marine Radio System, Model MRS-2 is a radio transmitter system comprising two (2) Model GPTA-2.5JB radio transmitters.

The MRS transmitter power for telephony on frequencies below 27.5 Mc/s (MHz) does not exceed wattage values shown in table 1. The frequency selector switch on the transmitter exciter automatically provides A3H emission when operated on 2003 (in the Great Lakes area), 2182 or 2638 kc/s (kHz).

TABLE 1.

Area	Frequency Band	Type of Communication	Transmitter Power
Great Lakes area and Mississippi River north of Baton Rouge, La., and connecting inland waters.	2 to 27.5 Mc/s	Any--------	150
Other than the above--	2 to 4 Mc/s	Ship to shore Ship to ship	400* 150
	4 to 27.5 Mc/s	Any--------	1000

* Except for distress calls and distress traffic, and urgency and safety Signals and messages, the maximum power that may be used on 2182 kc/s is 150 watts.

NOTE

The frequencies and applicable transmitter power output levels must be manually set by the operator. All single-sideband modes of transmission are to be restricted to the upper-sideband only, in accordance with FCC requirements.

The two (2) GPTA-2.5JB radio transmitters comprising the MRS-2 are identical units. Therefore, to avoid duplication of text and bulk, a single technical manual for Radio Transmitter, Model GPTA-2.5JB will apply for both units.

GPTA-2.5JB GPTA-2.5JB

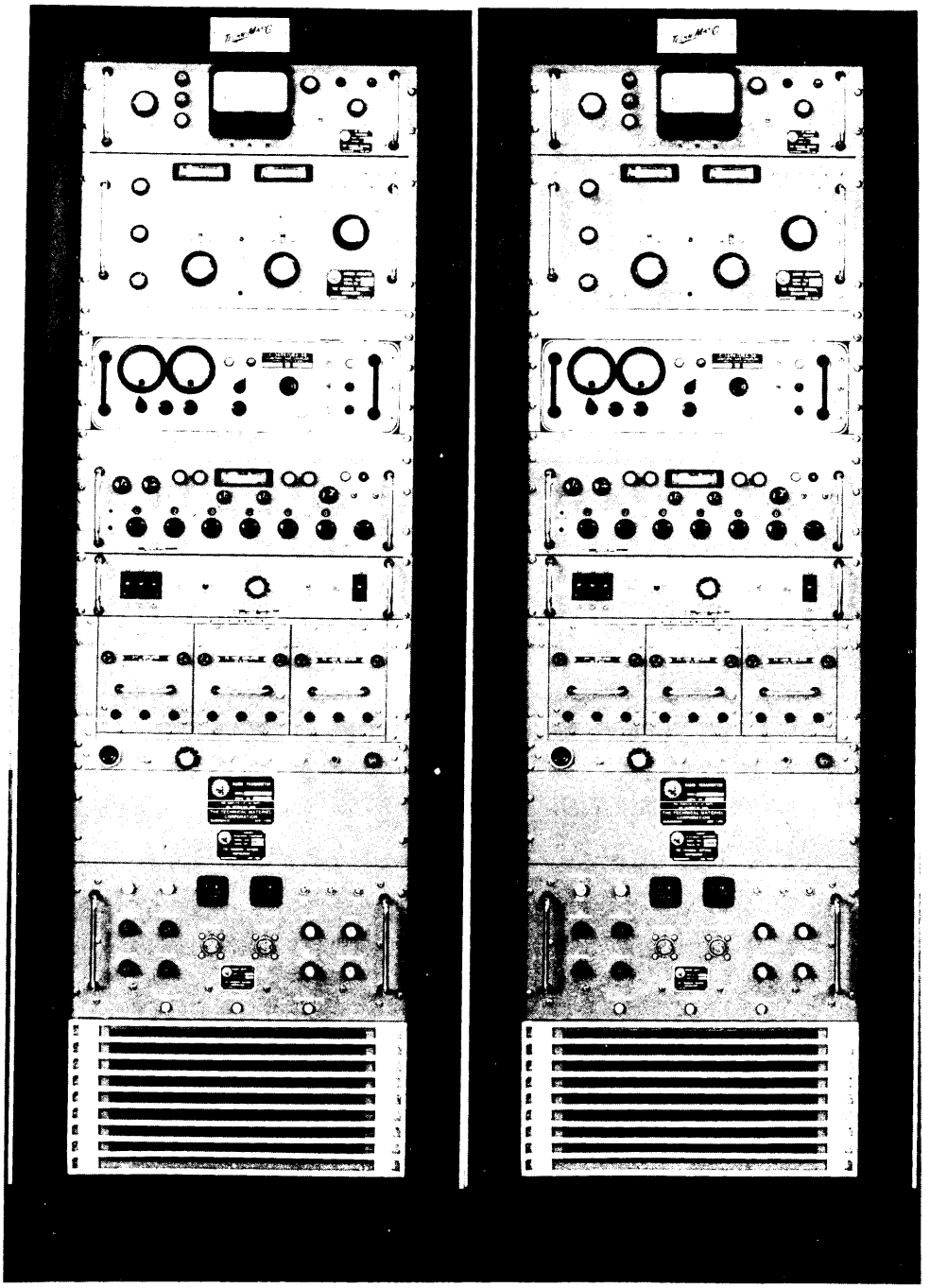

Figure 1-1. Marine Radio Transmitting System.

LOGISTICS

1. MATERIAL HANDLING.

Whether the equipment is crated or uncrated, various precautions must be observed in material handling.

CAUTION

Crates must never be rolled, crushed, dropped, or struck - they contain delicate electronic apparatus that can be damaged.

General safety precautions should be adhered to when moving the equipment to prevent injury to personnel or damage to equipment. Weight alone is not an important consideration. A light-weight, large, and bulky item cannot easily be handled by one man. When personnel are involved in handling, a good rule-of-thumb to follow is: 50 pounds for one man, or 100 pounds for two men. These weights are considered a safe limit for carrying. When lifting an item, bend the knees, keep back straight and lift with the legs.

2. PACKAGING DATA.

Each transmitter is packed in 6 crates (not including running spares). Each crate is assigned a number from one to six and appears on the crate. Physically locate crate 1 closest to the intended point of installation; locate the other crates according to their numerical sequence, such that crate 6 is placed farthest away from crate 1. Arranging crates in this manner makes unpacking and assembling the transmitter easier.

The transmitter is cleaned, preserved, packaged, and marked in accordance with MIL-P-116, PMD-40, and MIL-STD-129.

3. EQUIPMENT INSPECTION AND DAMAGE.

The transmitter has been assembled, calibrated, and tested at the factory before shipment. Inspect all packages for possible transit damage. While

following the procedural installation instructions, carefully unpack each crate as indicated; inspect all packing material for parts that may have been shipped as loose items.

With respect to equipment damage for which the carrier is liable, The Technical Materiel Corporation will assist in describing methods of repair and the furnishing of replacement parts.

4. UNCRATING METHODS.

The following uncrating methods must be adhered to when unpacking the transmitter to prevent equipment damage. Keep in mind the information previously discussed on material handling, packaging data, and equipment inspection.

a. Remove wire straps or bands from around crates with pair of snips.

b. Unless otherwise specified, remove nails from three sides of the crates with a nail puller. Do not use claw hammer or pinch bar.

c. Carefully remove sides of crate, then rip off moisture-proof paper. If a knife is used, care should be exercised not to mar equipment.

d. If equipment is not packed in cardboard carton, it may be removed from crate as prescribed in installation procedure.

e. If after removing moisture-proof paper a cardboard carton is encountered, carefully open with case cutter.

f. Where applicable, remove the following:

(1) Creased cardboard blocking pieces

(2) Barrier bags

(3) Tape

(4) Molded cushioning

(5) Cellulose wadding

(6) Tissue paper

g. An inventory of the equipment should be made at this time. As parts are unpacked, they should be marked off on the packing list or equipment supplied list.