RECORDING SET, AN/USH-7

DESCRIPTION OF COAST GUARD ELECTRONIC EQUIPMENT
NAME

Recording Set, AN/USH-7, for use with Loran C Ground Station Equipment.

FUNCTIONAL DESCRIPTION

This set will permit simultaneous recording of envelope and cycle phase shift information from a master and two slave stations. It is used in conjunction with Loran Equipment. The recorder will indicate 360° rotation of the retransmitting potentiometer shaft.

RELATION TO OTHER EQUIPMENT

This set differs from AN/USH-8 and AN/USH-9 in the following manner:

(1) AN/USH-8 - This set will permit recording of envelope and cycle time difference information on two pairs of Loran C signals simultaneously.

(2) AN/USH-9 - This set has an expanded scale feature to permit more sensitive measurements of envelope and cycle time difference information on two pairs of Loran C signals simultaneously.

The retransmitting potentiometer is compensated to allow for loading effect of the Recording Ammeter.

EQUIPMENT REQUIRED BUT NOT SUPPLIED

Not Applicable, Recording Set AN/USH-7 completely self-contained.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

(1) Type of reception and/or transmission - voltage signal from transmitting potentiometers in Loran Equipment.

(2) Frequency range - 50 or 60 cps.

(3) Power Output - Not Applicable.

(4) Output signal characteristics for visual output - permanent ink record on paper.

(5) Ranges as rated - Recording Ammeters, 1 MA, D-C.

(6) Accuracies - Recording Ammeters, ME-179/U, ± 1% of full scale deflection.

(7) Power Source Required - 115 V, a-c, single phase.

(8) Heat Dissipation - Not Applicable.
(9) Pertinent Electrical and Mechanical Characteristics of Individual Units-

Recording Ammeters: Dual Channel, Galvanometric Type, Rectilinear, Ink Recording Instruments, 1 MA, d-c full scale deflection on each channel.

Chart Drive: 115 V, a-c, 50 or 60 cps.

Marker Pens: 115 V, a-c, 50 or 60 cps.

Power Supply: PP-2539/U

(10) Where and How Installed - Component of complete Loran System.

(11) Overall Dimensions - Height 72", Width 26", Depth 24".

(12) Number of Operators Required - Not Applicable.

MANUFACTURER'S DATA

Texas Instruments Incorporated
3609 Buffalo Speedway
Houston 6, Texas

Recording Set, AN/USH-7
Contract Tcg-41218, November 20, 1959

Electrical Equipment Cabinet - Drawing No. 153847
Power Supply - Drawing No. 153832
Control Unit - Drawing No. 152784
Texas Instruments Recording Ammeter Model DR 1M 1M-A 16-LR 16-R-ED

TUBE AND SEMICODUCTOR COMPLEMENT

Power Supply

1 Rectifier, Semiconductor, Silicon, GE Type 4JA-411-CX135

2 Rectifiers, Semiconductor, Silicon, GE Type 4JA-4BX-117

1 Rectifier, Semiconductor, Silicon, GE Type 1N1487/852

2 Rectifiers, Semiconductor, Silicon, TI Type 652CO/1N752A

6 Total

4 Transistors, Germanium, RCA Type 2N561

1 Transistor, Germanium, RCA Type 2N270

DESCRIPTION OF COAST GUARD ELECTRONIC EQUIPMENT
5 Transistors, Germanium, RCA Type 2N217

1 Transistor, Germanium, RCA Type 2N647

11 Total

REFERENCE DATA AND LITERATURE


SHIPPING DATA

<table>
<thead>
<tr>
<th>NO. OF BOXES</th>
<th>CONTENTS</th>
<th>VOL. (Cu. Ft.)</th>
<th>OVERALL DIMENSIONS (Inches)</th>
<th>WEIGHT PACKED (Lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Electrical Equipment Cabinet</td>
<td>39.4</td>
<td>33-1/2</td>
<td>27-1/2</td>
</tr>
<tr>
<td>1</td>
<td>Control Unit, Power Supply</td>
<td>4.6</td>
<td>18-1/2</td>
<td>17-1/2</td>
</tr>
<tr>
<td></td>
<td>Recording Ammeter, Ink, Filler-primer Syringe, Pen Cleaner</td>
<td>4.6</td>
<td>18-1/2</td>
<td>17-1/2</td>
</tr>
</tbody>
</table>

DESCRIPTION OF COAST GUARD ELECTRONIC EQUIPMENT
## EQUIPMENT SUPPLIED

<table>
<thead>
<tr>
<th>NO. OF UNITS</th>
<th>CONTENTS</th>
<th>VOL (Cu. Ft.)</th>
<th>OVERALL DIMENSIONS (Inches)</th>
<th>WEIGHT (Lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Electrical Equipment Cabinet</td>
<td>26.0</td>
<td>24 26 72</td>
<td>170</td>
</tr>
<tr>
<td>1</td>
<td>Control Unit</td>
<td>.89</td>
<td>11-1/2 19 7</td>
<td>15</td>
</tr>
<tr>
<td>1</td>
<td>Power Supply</td>
<td>.55</td>
<td>14-3/8 19 3-1/2</td>
<td>35</td>
</tr>
<tr>
<td>1</td>
<td>Recording Ammeter, Ink, Filler-primer Syringe, Pen Cleaner</td>
<td>1.08</td>
<td>15 13 9-1/4</td>
<td>45</td>
</tr>
</tbody>
</table>

**DESCRIPTION OF COAST GUARD ELECTRONIC EQUIPMENT**