PURPOSE

A short range, approximately 200 miles tactical and general navigation system for aircraft providing, in the aircraft, continuous range and bearing information of the beacon.

BRIEF DESCRIPTION

The system provides continuous meter indication in the aircraft of the bearing of the transmitting beacon, to any number of aircraft, together with aural identification of the particular beacon being received. Range is obtained in the aircraft by a distance measuring system in which a fixed transmitter sends a correctly coded pulse, the time delay of the response being used to indicate the distance in miles from the beacon. The beacon can provide this information for up to 100 aircraft.

TYPE OF TRANSMISSION

Pulse coding. Pulse duration 3.5 ± 0.5 µs.
Peak Power 5 kw. Pulse pairs spaced 25 µs ± 0.5 µs.

FREQUENCY RANGE

Transmit 962 to 1026 MHz (Low Band)
1151 to 1213 MHz (High Band)
Receive 1023 to 1113 MHz.
There are 126 channels available.

AERIAL SYSTEM

This consists of a central array which produces the required vertical radiation pattern, and two rotating cylinders (800 r.p.m.) carrying the parasitic elements which give 15 ft and 11.5 ft beam-wave modulation, used in connection with bearing information.
### MAJOR UNITS

<table>
<thead>
<tr>
<th>PKS</th>
<th>Description</th>
<th>Weight</th>
<th>Diameter</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>5623-99-927-5322</td>
<td>Aerial Assembly [High Range]</td>
<td>17 lb</td>
<td>33 in</td>
<td>425 lb</td>
</tr>
<tr>
<td>5615-99-910-5358</td>
<td>Aerial Assembly [Low Range]</td>
<td>10 lb</td>
<td>24 in</td>
<td>425 lb</td>
</tr>
<tr>
<td>5823-99-432-5349</td>
<td>Aerial Control Cabinet</td>
<td>77 lb</td>
<td>36 in</td>
<td>150 lb</td>
</tr>
<tr>
<td>5823-99-432-5349</td>
<td>Electronic Cabinets</td>
<td>45 lb</td>
<td>24 in</td>
<td>290 lb</td>
</tr>
<tr>
<td>5823-99-927-5322</td>
<td>Air Conditioner</td>
<td>36 lb</td>
<td>24 in</td>
<td>300 lb</td>
</tr>
</tbody>
</table>

### POWER REQUIREMENTS

- **Power** required: 3 phase 460 V
- **Current** required: 450 A
- **Demand** required: 3300 lb

*Note: The power requirements include approximately 25% for the motor's auxiliary load.*

### HANDBOOKS

- **AP 2354AL**
- **BR 2135**

### ESTABLISHMENT LIST

- **C 1215**

### INSTALLATION SPECIFICATION

- **0893**
Fig. 2. TACAN beacon equipment general view