

JRC

INMARSAT-C MARINE MOBILE EARTH STATION JUE-75A



Designed in compliance with the GMDSS carriage requirements under the latest SOLAS.



Japan Radio Co., Ltd.

Reliable Global Data Communications Available At Any Time, Anywhere By INMARSAT

The Inmarsat-C system offers the second generation of Inmarsat service for global data communications.

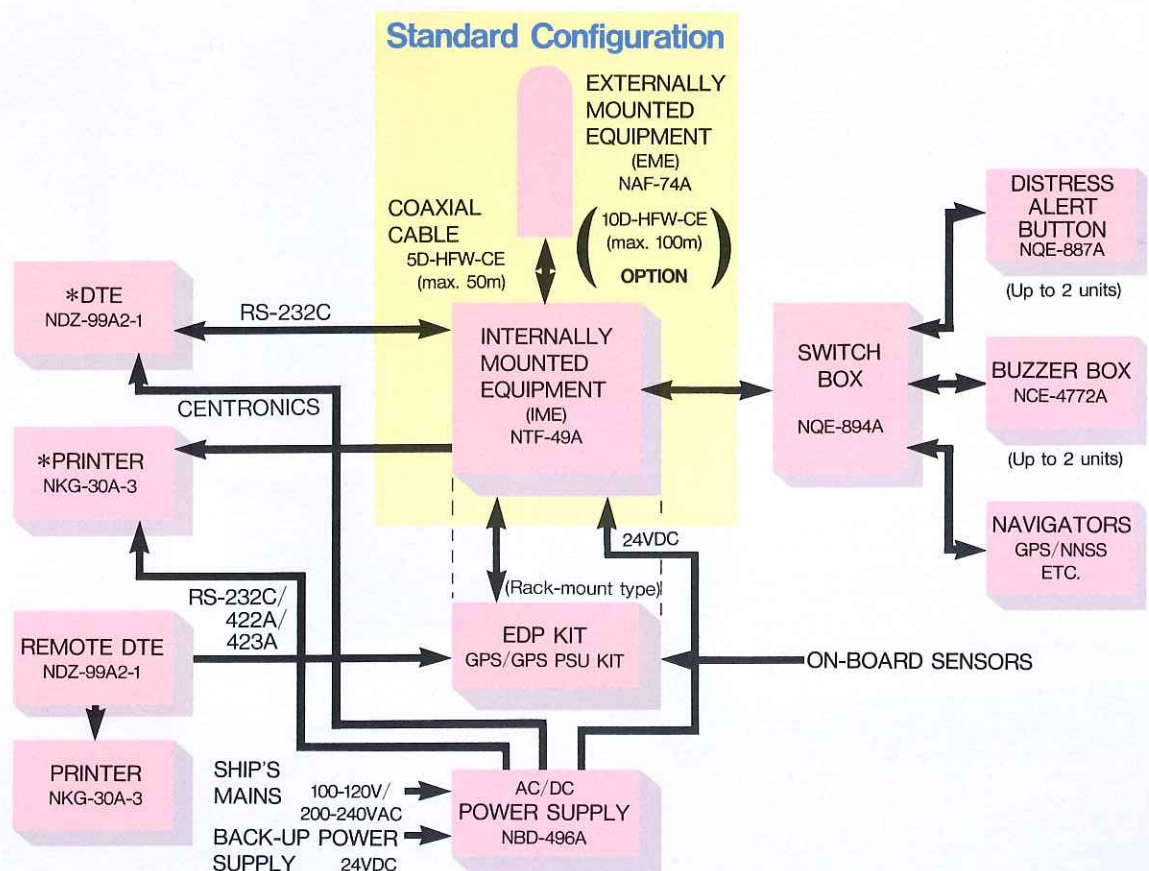
The JUE-75A Inmarsat-C mobile earth station (MES) is designed for marine use and provides two-way data/message communications anywhere in the world.

The JUE-75A is based on JRC's outstanding technology of the JUE-series Inmarsat-A terminals that have earned a world-wide reputation for their excellent quality and reliability.

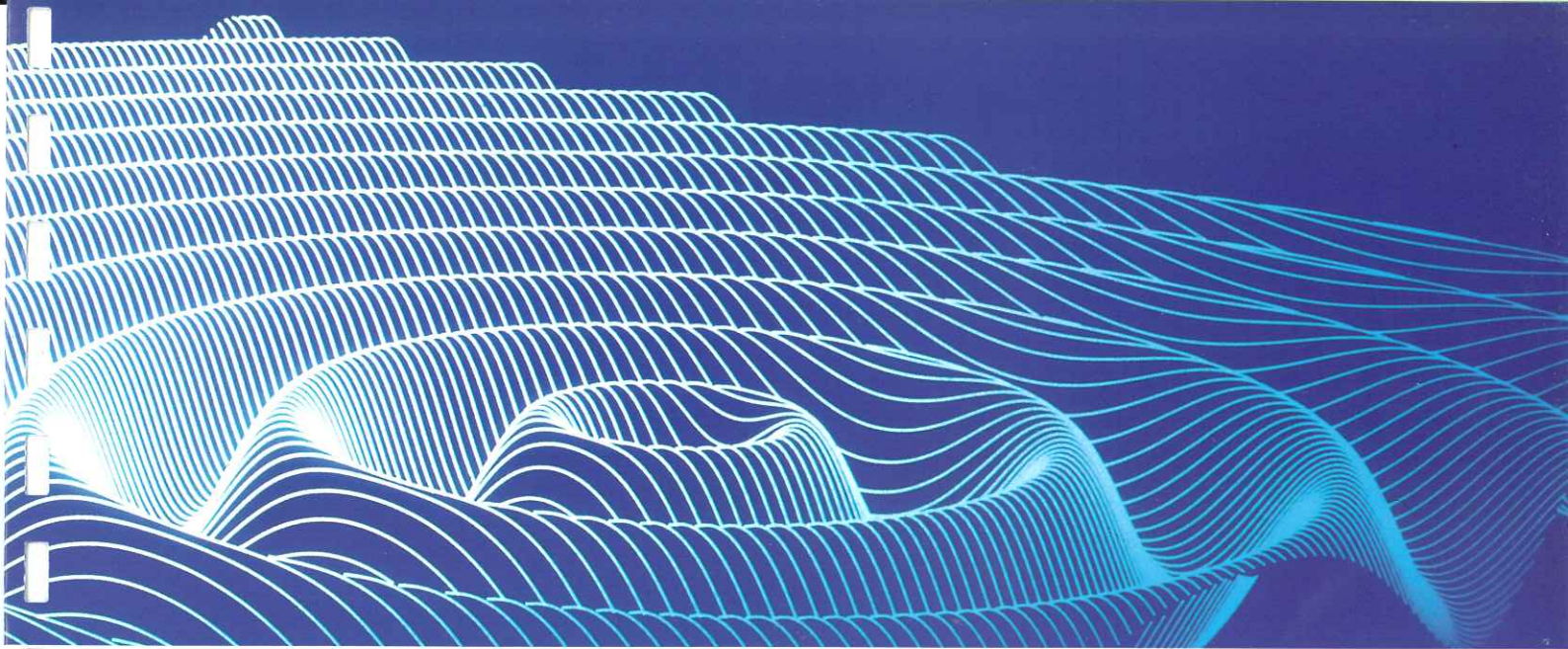
The JUE-75A is a very small, lightweight and low-cost terminal and can be installed on small fishing and leisure boats.

FEATURES

- Small, lightweight, reliable and economical
- Simple operation supported by a user-friendly software and interactive multi-level menus with window-menus.
- Easy installation with a single EME/IME coaxial cable.
- Variety of options-GMDSS options to meet the carriage requirements for the Global Maritime Distress and Safety System (GMDSS), navigational equipment such as GPS/NNSS navigators and various peripherals.



*The basic Inmarsat-C MES consists of the standard components and the *--marked options.



STANDARD FUNCTIONS

■ Store and Forward Message Transfer

Data/messages can be transmitted and received by simple operation. Store and forward message transfer by ARQ ensures reliable message transmission between the MES and telex or data subscribers through satellite channel.

■ Distress Alert

A ship's position which is manually or automatically entered from navigational equipment such as GPS/NNSS navigator, as well as ship's ID, date/time and other navigational information are automatically formatted. The distress alert is delivered by simple key operation.

■ Polling

The MES is programmed to automatically respond to a polling command from a land-line subscriber and send out pre-edited messages and various on-board data to him.

■ Data Reporting

The MES automatically transmits ship's position data and various on-board data by presetting the file name, send-out time and address number, and input of an automatic transmission command.

■ Abbreviated Dialing

Abbreviated dialing permits subscriber calling by one or two digit dialing. Up to 40 abbreviated numbers can be preprogrammed. Redialing of the last dialed number is also available.

■ EGC Reception

The MES incorporates an EGC (Enhanced Group Call) function which enables it to receive the SAFETYNET (maritime safety) and FLEETNET (commercial one-way communications) service.

■ Self-Testing Facilities

The MES incorporates various self-diagnostic programs to facilitate maintenance and troubleshooting. The self-testing results are displayed on a data terminal equipment. Automatic testing for performance verification and commissioning via satellite channel is also available.

OPTIONAL FUNCTIONS

■ DTE and Printer

The MES is compatible with several types of lap-top PC and two types of printer.

■ GPS Receiver

By incorporating a JRC compact, high-performance GPS receiver in the IME (Internally Mounted Equipment), position polling and reporting is available.

■ Distress Alert Button

If the MES is connected to a GPS/NNSS navigator, the distress message (ship ID, coast station ID, ship's position and date/time) is automatically transmitted by pushing the distress alert button.

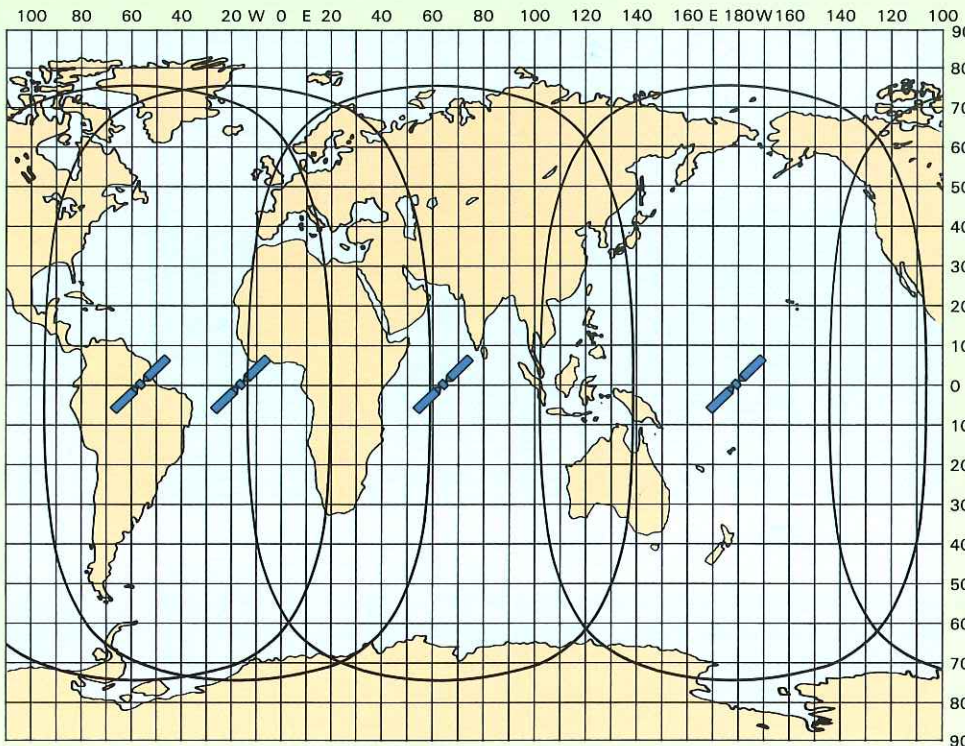
■ Buzzer box

When an emergency message is terminated at the MES, the buzzer box generates an audible alarm to alert the bridge or other places of the message termination.

■ AC/DC Switching Power Supply

In case of failure of the ship's mains (AC source), the power supply is automatically switched over to an emergency DC source.

INMARSAT-C SYSTEM COVERAGE AREAS (at elevation angle of 5°) AND COAST EARTH STATIONS



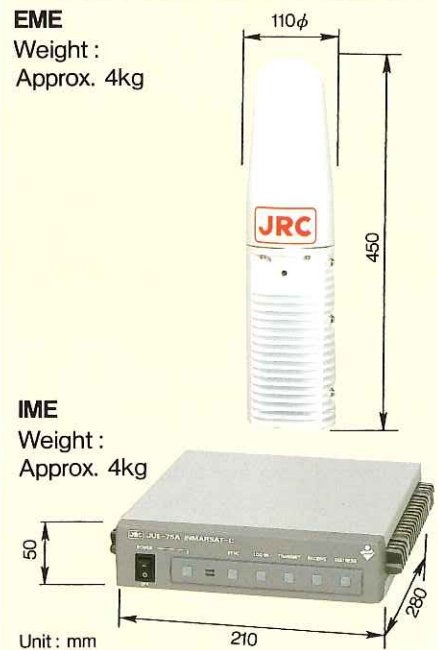
- Coast Earth Stations**
Planned to be Operational
- **Atlantic Ocean Region East**
 - Denmark*
 - France*
 - Germany
 - Italy
 - Netherlands
 - U. K.
 - U. S. A.
 - **Atlantic Ocean Region West**
 - U. K.
 - U. S. A.
 - France
 - **Indian Ocean Region**
 - Australia
 - China
 - Netherlands
 - Norway
 - India
 - **Pacific Ocean Region**
 - Australia*
 - China
 - Singapore*
 - U. S. A.
- *: In Operation

As of March 1991

SPECIFICATIONS

- **Frequency range** TX: 1626.5—1646.5 MHz
RX: 1530.0—1545.0 MHz
- **Antenna :** Pattern : Hemisphere
Polarization : Right-hand circular
- **EIRP :** Within 14 ± 2 dBW (at 5° elevation angle)
- **G/T :** -23 dB/K or more (at 5° elevation angle)
- **Modulation :** TX: 600 symbols/sec. BPSK (1st generation satellite)
1200 symbols/sec. BPSK (2nd generation satellite)
RX: 1200 symbols/sec. BPSK
- **Coding :** Interleaved, convolutional code (R=1/2, K=7)
- **Data rate :** TX: 300 bps (1st generation satellite)
600 bps (2nd generation satellite)
RX: 600 bps
- **Primary power supply :** 12—24 VDC +35% or -20%
- **Environmental conditions :** Temperature : -35° to +55°C (EME) — operational
-25° to +55°C (IME) — operational
-40° to +80°C (EME/IME) — survival
Humidity : Up to 95% at 40°C
Vibrations : Random -0.5 grms — operational
Random -1.0 grms — non-destructive
- **Navigational interface :** NMEA0183 and JRC standard format

DIMENSIONS



Note: JRC reserves the right to change the design and specifications of the equipment for improvement without notice.



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