2 htg

# RAYTHEON MARINE COMPANY ENVIRONMENTAL ASSESSMENT RF RADIATION HAZARD

676 Island Pond Road Manchester, NH 03109-5420

Raytheon Marine Company imports and sells Global Maritime Distress and Safety System (GMDSS) equipment's. In an effort to support this worldwide GMDSS program, RMC provides operator and maintenance training on the equipment's we sell.

The JUE-45A MKII, JUE-200M, JUE-75A and JUE-300B satellite communications systems provide the base for our GMDSS system. It is on these equipment's that we train operator and maintenance personnel.

The installation and operation of this equipment is carried out by our senior GMDSS Field Engineer. The system antenna installations are properly protected from access by any unauthorized personnel. No public access is possible in the area of our operational satellite communications system antennas.

We have performed informal Electromagnetic Radiation testing to confirm that no radiation hazards exist outside the main beam of the satellite communications antenna. All tests indicated maximum worst case conditions of radiation are well below the ANSI/IEEE C95.1-1991 standard of 5.0mw/cm<sup>2</sup>.

For the above reasons, this applicant considers the granting of this license to have no significant effect upon the environment

George W. Kimbal

Manager, Product Support

and Training

# RAYTHEON MARINE COMPANY MANCHESTER TRAINING FACILITY -- KI2XDY EXPERIMENTAL ACTIVITIES REPORT 1 August 1995 -- 1 August 1997

With the new Global Maritime distress and Safety System (GMDSS) getting into full swing, we have been providing more maintenance support as well as sales demonstrations for our satellite communications product lines.

The purpose of this station has been solely for providing technical support and module repair. It has also been used to provide sales demonstrations and training during this period.

George W. Kimball

Manager, Product Support

and Training

# RAYTHEON SERVICE COMPANY (RMC)

### LICENSE APPLICATION

### **INMARSAT - EXPERIMENTAL STATION**

**20 FEBRUARY 1998** 

## ITEM 4. PARTICULARS OF OPERATION

### Note 1.

These equipment's (JUE-45A MII and JUE-300B) meet the INMARSAT system specification requirements for Standard A and Standard B modes of operation.

### Note 2.

This equipment (JUE-200M) meets the INMARSAT system specification requirements for Standard M modes of operation.

### Note 3.

This equipment (JUE-75A) meets the INMARSAT system specification requirements for Standard C modes of operation.

### ITEM 6. DIRECTIONAL ANTENNA

The JUE-45A MII and JUE-300B INMARSAT-A & B Ship terminal Stations untilize a directional parabolic antenna with a 15 degree beamwidth at the -3dB points. This antenna tracks the satellite and is capable of positions from the horizon to zenith (0° to 95° elevation) and 360° in the horizontal plane. See attached brochures.

The JUE200M I NMARSAT-M Ship terminal Station utilizes a beam steerable phased array antenna right hand circular polarization and 2 axis stabilization. This antenna tracks the satellite and is capable of positions from the horizon to zenith (0° to 95° elevation) and 360° in the horizontal plane.

The JUE-75A INMARSAT-C Marine Mobile Earth Station has an omnidirectional antenna with a hemispherical radiation pattern.

# RAYTHEON SERVICE COMPANY (RMC)

LICENSE APPLICATION

**INMARSAT - EXPERIMENTAL STATION** 

**20 FEBRUARY 1998** 

# **ITEM 10 NARRATIVE STATEMENT OF PURPOSE**

Raytheon Marine Company sells and maintains these INMARSAT Ship Terminal Equipment's onboard ships around the world in support of the Global Maritime Distress and Safety System (GMDSS). The intent of this station is solely for the purpose of providing technical maintenance training and support as well as operator training for INMARSAT Type Approved Shipboard Terminal Equipment's sold and serviced by Raytheon Marine Company. The purpose of this training is to provide our customers with, not only well qualified service, but also knowledgeable operators who are thoroughly competent in the proper usage of these INMARSAT Satellite Communications Systems.