

CARGO SHIP SAFETY RADIO CERTIFICATE

United States of America

Issued Under the Provisions of the

**International Convention for
the Safety of Life at Sea, 1974, as amended in 1988**

Name of Ship	Distinctive Number or Letters	Port of Registry	Gross Tonnage	Date on Which Keel was Laid (see note below)
R/V GYRE	7318999	FREEPORT, TX USA	798	1973

The Government of the United States of America certifies:

1. That the above named ship has been surveyed in accordance with the requirements of regulation 1/9 of the Convention;
2. That the survey showed that the ship complies with the requirements of the Convention as regards to radio installations;
3. That the vessel is certified to operate in Sea Areas A1 + A2 + A3 (regulation IV/2);
4. That the functioning of the radio installations used on life-saving appliances complies with the requirements of the Convention;
5. That the details of the radio equipment installation conform to the accompanying Record of Equipment of Radio Facilities that accompanies this Certificate;
6. That an Exemption Certificate has (has not) been issued.

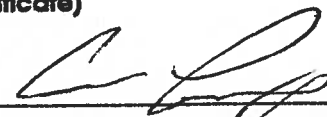
This Certificate will remain in force until: FEBRUARY 28, 2013

Issued at: FREEPORT, TX USA

(Place of issue of certificate)

FEBRUARY 29, 2012

(Date of Issue)



(Signature of licensed inspector)

CLINTON LIVESAY

(Typed or Printed Name of licensed inspector)

DM-00000516

(FCC license number of issuing inspector)

**PREMIER ELECTRONIC
SERVICES, INC.**
CLINTON T. LIVESAY
COMM. LICENSE
#00000516

Note: It will be sufficient to indicate the year in which the keel was laid except for 1952, 1965, 1980, 1992, and 1995 in which cases the actual date should be given.

RECORD OF EQUIPMENT OF RADIO FACILITIES FOR COMPLIANCE WITH THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED IN 1988

1. Particulars of ship

Name of Ship R/V GYRE Call Sign KJCL
 Official Number 1179574 Port of Registry FREEPORT, TX USA
 Minimum number of persons with required qualifications to operate the radio installations 2

2. Details of radio facilities

Item	Actual Provision
1 Primary Systems	
1.1 VHF radio installation	
1.1.1 DSC encoder	PROVIDED
1.1.2 DSC watch receiver	PROVIDED
1.1.3 Radiotelephony	PROVIDED
1.2 MF radio installation	
1.2.1 DSC encoder	N/A
1.2.2 DSC watch receiver	N/A
1.2.3 Radiotelephony	N/A
1.3 MF/HF radio installation	
1.3.1 DSC encoder	PROVIDED
1.3.2 DSC watch receiver	PROVIDED
1.3.3 Radiotelephony	PROVIDED
1.3.4 Direct printing radiotelegraphy	PROVIDED
1.4 INMARSAT ship earth station	PROVIDED
2 Secondary means of alerting	PROVIDED
3 Facilities for reception of maritime safety information	
3.1 NAVTEX receiver	PROVIDED
3.2 EGC receiver	PROVIDED
3.3 HF direct printing radiotelegraph receiver	PROVIDED
4 Satellite EPIRB	
4.1 COSPAS-SARSAT	PROVIDED
4.2 INMARSAT	N/A
5 VHF EPIRB	N/A
6 Ship's radar transponder	PROVIDED
7 Radiotelephone distress frequency watch receiver on 2182 kHz	N/A
8 Device for generating the radiotelephone alarm signal on 2182 kHz	PROVIDED

3. Methods used to ensure availability of radio facilities (regulations IV/15.6 and 15.7) (at least one required for sea areas A1 and A2, at least two for A3 and A4)

Item	Actual Provision
3.1 Duplication of equipment.....	PROVIDED
3.2 Shore-based maintenance.....	PROVIDED
3.3 At-sea maintenance capability.....	N/A

4. Ships constructed before 1 February 1995 which do not comply with all the applicable requirements of Chapter IV of the convention as amended in 1988

4.1 For ships required to be fitted with radiotelegraphy in accordance with the Convention in force prior to 1 February 1992.

Item	Requirements of regulations	Actual Provision
Hours of listening by operator.....	N/A	
Number of operators.....	N/A	
Whether auto alarm fitted.....	N/A	
Whether main installation fitted.....	N/A	
Whether reserve installation fitted.....	N/A	
Whether main and reserve transmitters electrically separated or combined.....	N/A	

4.2 For ships required to be fitted with radiotelephony in accordance with the Convention in force prior to 1 February 1992.

Item	Requirements of regulations	Actual Provision
Hours of listening by operator.....	N/A	
Number of operators.....	N/A	

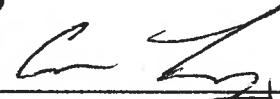
THIS IS TO CERTIFY that this record is correct in all respects

Issued at FREEMONT, TX USA

(Place of issue of the Record)

FEBRUARY 29, 2012

(Date of Issue)



(Signature of inspector)

DM-00000516

(FCC license number of issuing inspector)

**PREMIUM ELECTRONIC
SERVICES, INC.
CLINTON T. LINDSEY
COMMERCIAL LICENSE
DM00000516**

AMERICAN BUREAU OF SHIPPING
CHECK SHEET ON SOLAS SURVEYS-SLR/ GMDSS
(ORIGINAL TO BE RETAINED ONBOARD UNTIL NEXT SURVEY)

VESSEL GYRE CLASS NO. _____

Associated REPORT NO. _____ DATE FEBRUARY 29, 2012

RADIO TECHNICIANS SURVEY¹

PORT OF REGISTRY FREEMPORT, TX

CALL SIGN KJCL MMSI NUMBER 338441000

IMO NUMBER 7318999 OFFICIAL NUMBER 1179574

TELEX ID NUMBER (NBDP) 338441000 GYREX INMARSAT ID NUMBERS 433844110

ADDITIONAL NUMBERS _____

SEA AREA(S) IN WHICH VESSEL IS CERTIFIED TO OPERATE: A1 A2 A3 A4
YES NO N/A

1. The following test instruments used:

a. Frequency counter.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Watt meter with plug in elements covering MF, HF, and VHF.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Ampere/Volt/Ohm meter.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d. Insulation resistance tester.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e. Acid tester (specific gravity).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
f. Instrument for decoding the ID-signal of satellite EPIRBs.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
g. ² Spectrum analyzer.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. ² Oscilloscope.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. ² Deviation meter.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j. ² Demute tester for testing the radiotelephone distress frequency watch receiver (2182 kHz).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The following items were checked and tested as necessary and found satisfactory.

2. Source of energy.

a. Checked main source of energy available in accordance with requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Emergency source of energy: (specify below) capacity (Hrs & kW): <u>18 HOURS / 75 KW</u> location: <u>MAIN DECK</u>			
c. Reserve source of energy:(specify below) capacity: <u>LEAD ACID BATTERIES 166 AH</u> location: <u>BATTERY BOX BELOW WHEELHOUSE</u>			

3. Radio installations

a. The radio controls for operating the radio installation are adequately illuminated.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. The capacity of battery(s) has been checked at intervals not exceeding 12 months.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Electrical lighting is permanently arranged and connected to a source of power independent of the main/emergency source of power.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d. Radio installation clearly marked with call sign, ship station identity, and other applicable codes.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e. Radio equipment is located at: <u>WHEELHOUSE</u>			
f. Remote control from conning position provided.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

¹ The following part of the survey should always be performed by a fully qualified Radio Technician who has adequate knowledge of the Radio Regulations, the SOLAS Convention, as amended, and the IMO performance standards for radio equipment.

* Check all that apply

² This test equipment may also be used but is not mandatory.

YES NO N/A

9. VHF DSC controller and Channel 70 DSC watch receiver.

	BASIC	DUPLICATION
Make / Model:	PART OF FURUNO FM-8800S	PART OF FURUNO FM-8800S

- a. Performed an off-air check confirming the correct Maritime Mobile Service Identity is programmed in the equipment.
- b. Checked for correct transmission by means of a routine or test call to a coast station, other ship, on board duplicate equipment or special test equipment.
- c. Checked for correct reception by means of a routine or test call from a coast station, other ship, on board duplicate equipment, or special test equipment.
- d. Checked the audibility of the VHF/DSC alarm.
- e. Checked that the equipment operates from the main, emergency (if provided) and reserve sources of energy.
- f. Checked that the ship's position in the distress alert is automatically provided with this information from an internal or external navigation receiver (e.g. GPS)
- g. Checked for compliance with IMO performance standards.
- h. Checked DSC alerting available from conning position.
- i. Checked that DSC distress procedure and DSC number are clearly displayed near the unit.

10. MF radiotelephone equipment, or MF/HF radiotelephone equipment.

	BASIC	DUPLICATION
Make / Model:	FURUNO FS-2570	

- a. Checked that the equipment operates from the main, emergency (if provided), and reserve sources of energy.
- b. Checked antenna tuning in all appropriate bands.
- c. Checked that equipment is within frequency tolerance on all appropriate bands (10 Hz).
- d. Checked for correct operation by contact with a coast station and/or measure RF power output and VSWR.
- e. Checked receiver performance by monitoring known stations on all appropriate bands.
- f. Checked that the control unit on the bridge has first priority for the purpose of initiating distress alerts, if control units are provided outside the navigational bridge.
- g. Checked for compliance with IMO performance standards.

11. MF/HF radio telex equipment

	BASIC	DUPLICATION
Make / Model:	PART OF FURUNO FS-2570	

- a. Checked that the equipment operates from the main, emergency (if provided), and reserve sources of energy.
- b. Confirmed that the correct selective calling number is programmed in the equipment.
- c. Checked correct operation by inspection of recent hard copy or by a test with a coast radio station.
- d. Checked for compliance with IMO performance standards.

12. MF DSC controller(s), or MF/HF DSC controller(s).

	BASIC	DUPLICATION
Make / Model:	PART OF FURUNO FS-2570	

- a. Checked that equipment operates from the main, emergency (if provided), and reserve sources of energy.

	YES	NO	N/A
b. Confirmed that the correct Maritime Mobile Service Identity is programmed in the equipment.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Checked the off air self test program.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d. Checked operation by means of a test call on MF and/or HF to a coast radio station if the rules of the berth permit the use of MF/HF transmissions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e. Checked the audibility of the MF/HF DSC alarm.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
f. Checked that the ship's position in the distress alert is automatically provided with this information from an internal or external navigation receiver (e.g. GPS)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
g. Checked for compliance with IMO performance standards.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
h. Checked DSC alerting available from conning position.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

13. MF DSC watch receiver(s), or MF/HF DSC watch receiver (s).

Make/model: PART OF FURUNO FS-2570

a. Confirmed that only DSC channels indicated in Regulations IV/9, 10, 11, and 12 are being monitored.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Checked that a continuous watch is being maintained while keying MF/HF radio transmitters.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Checked for correct operation by means of a test call from a coast station or other ship.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

14. INMARSAT Ship Earth Station(s)

	NR 1	NR 2	NR 3
Make/Model:	FURUNO FELCOM 15		

Specify Type: B C F77 Specify Basic or Duplication or Both: BASIC

a. Checked that equipment operates from the main, emergency (if provided), and reserve sources of energy, and that	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. where an uninterrupted supply of information from the ship's navigational or other equipment is required, ensuring such information remains available in the event of failure of the ship's main or emergency source of electrical power.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Checked the distress function by means of an approved test procedure, where possible.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d. Checked for correct operation by inspection of recent hard copy of test call by telex or telephone.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e. Checked distress function only if permitted to carry out test by the coast earth station.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
f. Checked for compliance with IMO performance standards.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

15. NAVTEX equipment.

Make/model: NX-700

a. Checked for correct operation by monitoring incoming messages or inspecting recent hard copy.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Performed test run of the self-test program, if provided.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Checked for compliance with IMO performance standards.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

16. Enhanced Group Call.

Make/model: PART OF FELCOM 15

a. Checked for correct operation and area by monitoring incoming messages or by inspecting recent hard copy.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Performed test run of the self-test program, if provided.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Checked for compliance with IMO performance standards.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

17. Float free satellite EPIRB.

Make/model: ACR RLB-35

a. Checked position and mounting for float free operation. Verified that EPIRB is installed in an easily accessible position and is ready to be manually released and capable of being carried by one person into a survival craft. Location: OUTSIDE WHEELHOUSE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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		YES	NO	N/A
b.	Checked for satisfactory stowage.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c.	Checked for operating instructions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d.	Checked for sufficient battery capacity for stand-by condition and to provide transmissions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e.	Checked for clear markings with ship's call sign.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
f.	Battery expiration date: 1) <u>1-Feb-14</u> 2) <u>5-2014</u>			
g.	Checked for compliance with IMO performance standards.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
21.	Checked test equipment and spares carried to ensure carriage is adequate in accordance with the sea areas in which the ship trades and the declared options for maintaining availability of the functional requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
22.	Radar(s).			
	Make / Model:			
1	FURUNO FAR-2117			
2	FR-7112			
a.	Checked for satisfactory functioning of equipment.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b.	Checked capability to be operated individually and simultaneously, where two radars are required to be carried (for radars installed on or after 1 September 1984).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Checked radar(s) connected to emergency generator (for radars installed on or after 1 September 1984).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. ⁵	Checked capability to operate on 9 GHz frequency.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	Compliance with IMO performance standards.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
23.	ARPA			<input checked="" type="checkbox"/>
	Make/model: PART OF FAR-2117			
a.	Checked for satisfactory functioning of equipment.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b.	Checked radar facilities operational (if ARPA integral part of radar).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Checked target acquisition, performance.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	1. Manual.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	2. Automatic.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d.	Checked audible/visual operational warnings.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
24.	Equipment Approvals.			
a.	According to GMDSS all equipment needs to be type approved.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b.	Checked for compliance with IMO performance standards.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
25.	Receiver for a Global Navigation Satellite system or a Terrestrial Radionavigation System (GPS) ⁶			
a.	Make/model: BUILT-IN FELCOM 15			
b.	Information on the ship's position is continuously and automatically provided to all relevant GMDSS equipment.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c.	The navigation receiver is supplied from a source of energy ensuring continuous supply of the ship's position information in the event of failure of the ship's main or emergency source of energy.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d.	Checked for compliance with IMO performance standards.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

⁵ Per regulation V/12(g) and (h) of the GMDSS Amendments, for ships that are required to be fitted with radar installation(s), at least one radar installation shall be capable of operating in the 9 GHz frequency band from 1 February 1995.

⁶ A RDF is no longer required, as per 2000 SOLAS Amendments to Chapter V.

VESSEL _____ GYRE _____ CLASS NO. _____

Associated REPORT NO. _____ DATE FEBRUARY 29, 2012 _____

YES NO N/A

The following requirement(s) is/are considered part of the Safety Equipment, however it must be inspected by an ABS approved Radio Firm. If this equipment is not inspected at time of the Radio Survey, then an ABS approved Radio Firm is to be onboard at the time the Safety Equipment survey when an inspection of the below items is carried out:

25. Automatic Identification System (AIS)		YES	NO	N/A
a.	Checked for compliance with IMO performance standards, and for new installations, verified antenna layout, initial configuration report, interconnection diagrams, provision of the pilot plug and power supply arrangements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Verified that the AIS power supply unit is type-approved or tested for electromagnetic compatibility according to IMO Res. A.813(19), if the AIS does <u>not</u> have an integrated power supply unit.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Verified that any interface installed between the AIS and other radio-navigational equipment is type-approved.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	Verified that the AIS is connected to the emergency power source.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	Checked that AIS is synchronized with UTC, and if provided, position information is correct and valid.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f.	Verified that correct ship information has been entered into the AIS.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g.	Performed test including radio frequency measurements and on-air test (to Vessel Traffic Service station or suitable test equipment.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

