COPY

NIPPON KAIJI KYOKAI

CERTIFICATE OF APPROVAL FOR FIRMS ENGAGED IN PERFORMANCE TESTS OF VOYAGE DATA RECORDERS

Certificate No. : **24EQ007VT**
Approval No. : **VT116**

THIS IS TO CERTIFY that

MACKAY MARINE, MIAMI

11360 Interchange Circle North, Miramar, Florida, USA

is approved as a firm engaged in annual performance tests of the voyage data recorders under the Society's Rules for Approval of Manufacturers and Service Suppliers incorporating IACS UR Z17, as amended.

This approval is valid until **11 December 2028**, subject to periodical assessment and the validity of the equipment manufactures' approval, and in association with the attachment to this certificate on which the applicable items to this approval are listed.

This certificate was issued at Tokyo on **25 January 2024**.

See the conditions for approval on the reverse.

NIPPON KAIJI KYOKAI

Y. Takao
General Manager
Material and Equipment Dept.

Conditions for Approval:

1. The scope of performance test of this firm is as follows;
   - VDR/S-VDR regarding SOLAS Chapter V, Regulation 20
   For the applicable items and applicable subsidiaries to this approval, refer to the attachment.

2. The service has been properly conducted and reported to the Society's surveyor in accordance with the requirements of the rules and the relevant regulations.

3. Where there is any alteration to the service approved by this certificate, the firm should notify immediately to the Society.

This is to certify that the firm has been periodically or occasionally assessed in accordance with the regulations of Chapter 2, Part 1 of the Rules for Approval of Manufacturers and Service Suppliers.

Due range of the periodical assessment: between 12 December 2025 and 11 December 2026

Periodical Assessment

Date _____

Signature _____

Surveyor to NIPPON KAIJI KYOKAI

Occasional Assessment

Date _____

Signature _____

Surveyor to NIPPON KAIJI KYOKAI

Attachment to the certificate No. 24EQ007VT

Offices / Locations

Mackay Marine, Miami	Miramar, FL, USA
Mackay Marine, Jacksonville	Jacksonville, FL, USA
Mackay Marine, Charleston	North Charleston, SC, USA
Mackay Marine, Tampa	Tampa, FL, USA
Mackay Marine, Savannah	Thunderbolt, GA, USA
Mackay Marine, Do Brazil	Rio de Janeiro, Brazil

Attachment to the certificate No. 24EQ007VT

Manufacturers / Models

SELEX Elsag Ltd	VER3000, VER4000, VER4000S
Furuno Electric Co., Ltd.	VR-3000, VR-3000S, VR-5000, VR-7000, VR-7000S
Japan Radio Co., Ltd.	JCY-1000, JCY-1700, JCY-1700S, JCY-1800, JCY-1850, JCY-1900, JCY-1950
L-3 Communications	HVR0100000
Netwave Systems B.V.	NW-4000 VDR, NW-4000 SVDR, NW-6000 VDR, NW-6000 SVDR, G2, G3
Transas Limited	SVDR 3100, SVDR 3200
Danelec Marine A/S	DM100, DM200, DM300, DM400, DM500
Beijing Highlander Digital Technology Co., Ltd.	HLD-A2/S, HLD-B2/S2, HLD-VDR600, HLD-SVDR600
Samsung Heavy Industries Co., Ltd.	SVDR, SVDR-N, SVDR-Pro, SVDR-3000
AMI Marine (UK) Ltd.	VR2272, VR2272B VDR/SVDR, X-Series VDR/SVDR, X2 VDR/SVDR
Kelvin Hughes Limited	Manta Digital VDR/S-VDR
IS Maritime	VDR G4, VDR G4E
Rutter Technologies Inc.	VDR-100, VDR-100G2, VDR-100G2S, VDR-100G3, VDR-100G3S