Maritime and Coastguard Agency

MARINE GUIDANCE NOTE

MGN 272 (M)

VOYAGE DATA RECORDER'S (VDRs) – PERFORMANCE TESTING

Notice to all Ship Owners and Operators; Masters, and Deck Officers of Merchant Ships; Manufacturers, and Suppliers of Voyage Data Recorders.

Summary

- Voyage Data Recorders (VDRs) should be tested after installation and annually thereafter.
- The test must be undertaken by a competent person
- The proforma at annex1 should be used to record the test result

1. **Introduction**
Full details of performance testing requirements for VDR's can be found in the publication; MCA SAFETY OF NAVIGATION – IMPLEMENTING SOLAS CHAPTER V, as amended. Available on the MCA website under guidance and regulations.

Whenever a system is commissioned it shall also undergo equivalent testing.

2. **Annual testing**
The annual testing is to be carried out by a suitably Competent Person, The annual testing and checks must be carried in conjunction with the relevant Statutory Survey [e.g. Passenger Ship Safety Certificate (PC), Cargo Ship Safety Certificate (CSC) or Cargo Ship Safety Equipment Certificate (SEC)].

The VDR check must also be carried out within the survey period permitted by the Harmonised System of Survey and Certification.

The Survey Window allowed is up to 3 months before the due date for PC; and -/+ 3 months of due date for CSC and SEC. (Thus the Maximum period between subsequent checks of the VDR is 15 months for Passenger vessels and 18 months for Cargo vessels).

Where vessels are on a partial continuous survey regime the VDR annual performance testing can be scheduled into the continuous survey cycle.

3. **Format of Certificates**
Annex 1 contains a pro forma of the minimum data that a certificate of completion of performance testing of a Voyage Data Recorder should contain. This form is to be completed by a competent person.

4. **Competent Person**
For the purposes of this notice, a competent person to conduct performance tests is someone with the required knowledge, skills, and experience. They shall be accredited by the equipment manufacturer, EU Flag State, or UK Authorised Classification Society, and provided with evidence of competence to carry out the

testing of appropriate VDR equipment. The competent person must be independent of the vessels owner/operator, unless the process of testing is demonstrated to a Maritime and Coastguard Agency surveyor.

5. **Data Retrieval**

A crucial element of both the commissioning and annual testing is the decoded analysis of 12 hour data. In order to ensure a cost effective approach; the operator should consult with the person who will undertake the testing with regard to the specific requirements for the unit installed.

In some cases, in order to prevent loss of the required data through over-writing; it will be necessary to switch off the VDR shortly after arrival in the port at which the annual tests are to be undertaken. The 12 hour data shall incorporate proof that all relevant interfaces as indicated on the report are operational. The 12 hour data shall be recorded as close as practical before the date of issue of the certificate

Further Information

Further information on the contents of this Notice can be obtained from:

The Survey Branch
Maritime and Coastguard Agency
Spring Place,
Bay 1 / 01
105 Commercial Road
SO15 1EG

Telephone: 023 8032 9454
Fax: 023 8032 9104

General Enquiries: 24 Hour Info Line
infoline@mcga.gov.uk
0870 600 6505

Maritime and Coastguard Agency Website Address:
Internet: http://www.mcga.gov.uk

File Ref: 103/001/0372

Published: 07/2004

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Department for Transport

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ANNEX 1

VOYAGE DATA RECORDER PERFORMANCE TEST CERTIFICATE

Note – Insert Tick (✔) for success or Cross (✘) for failure or N/A for non fitted interfaces in these boxes as appropriate ☐

Ship's Details	
Ship's Name	
Flag	
IMO Number	
Date Keel laid	
Gross Tonnage	

Voyage Data Recorder Details	
Manufacturer	
Model	
System Serial Number	
Software version number	
Date Fitted	

Inspection Details	
Name person conducting testing	
Company	
Inspection Date	
Inspection Location	

1. Pre-existing Alarms	
Confirm that no alarms were present at start of procedure ☐	

2. Power Supply Alarm Check	
Remove source of external power. Confirm that alarm is activated. ☐	
Record time (hh.mm)	

3. Reserve Power Source Check	
Allow VDR to continue running for 1 hour 55 minutes from '2' above.	
Confirm that equipment is still operating at this time, with no additional alarms. ☐	
Record time (hh.mm)	

4. Reserve Power Source shut down Check	
2 hours 05 minutes from '2' above confirm that the VDR has automatically	
stopped recording ☐	
Record time (hh.mm)	

5. Battery Expiry Dates		
Battery	*Expiry Date*	
Acoustic Beacon		☐
Reserve Power Source		☐

6. Acoustic Beacon Test	
Using Manufacturer's test equipment confirm that Acoustic Beacon is functional	☐

7. Physical Condition of Equipment Inspect Equipment and Record Condition, tick if satisfactory:-		
Sub Unit	*Notes on Condition*	
Protective Capsule		☐
External Cables		☐
Main Unit		☐

8. Interfaces: Operation and recording		
Date & time	Preferably external to ship (e.g. Global Navigation satellite system.)	☐
Ship's position	Electronic Positioning system	☐
Speed (through water or over ground)	Ship's Designated Speed and Distance Measuring Equipment	☐
Heading	Ship's compass	☐
Bridge Audio	1 or more bridge microphones	☐
Communications Audio	VHF	☐
Radar data- post display selection	Master radar display	☐
Water depth	Echo Sounder	☐
Main alarms	All mandatory alarms on bridge	☐
Rudder order & response	Steering gear & autopilot	☐
Engine order & response	Telegraphs, controls and thrusters	☐
Hull openings status	All mandatory status information displayed on bridge	☐
Watertight & fire door status	All mandatory status information displayed on bridge	☐
Acceleration & hull stresses	Hull stress and response monitoring equipment **when fitted**	☐
Wind speed & direction	Anemometer **when fitted**	☐

9. Change or Repair of Sensors	
a) Check maintenance records of VDR	☐
b) Confirm any defects properly rectified	☐

10. Manufacturer's Analysis	
Manufacturers analysis of 12 hour log is attached and in accordance with IEC 61996 Section 4.6 – Data Items to be recorded (A. 861 / 5.4) All relevant interfaces to be proven	☐
Date and time of above log	

11. Observations and additional manufacturer's requirements

Manufacturer's Certified Representative	Vessel's Representative
Name	Name
Signature	Signature
Date	Date

This performance test was conducted in accordance with the requirements of SOLAS74 Chapter V Regulation 18.8 and is related to the [ ] **SAFETY** [ ] **CERTIFICATE** for this vessel which is due for revalidation on [ ] .

In accordance with the principals of harmonisation of certification it will remain valid until the next annual re-validation of that certificate, subject to the equipment being maintained in appropriate operational condition.

Top copy – Retained by Certified Representative
Bottom copy – Retained by vessel