

## GUIDE FOR

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# HULL CONDITION MONITORING SYSTEMS 2015

### Guide to Color Coding Used in Online Version of the Guide

The following summarizes the colors corresponding to Rule Changes, Corrigenda items and editorial changes in the Guide files which are available for download.

#### Rule Changes:

**Changes effective 15 December 2015**

**NOTICE NO. 1 – March 2016 (effective 1 March 2016)**

#### Corrigenda:

#### Editorials:

**Editorial Changes**

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**GUIDE FOR**

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# **HULL CONDITION MONITORING SYSTEMS**

**15 DECEMBER 2015 (Updated March 2016 – see next page)**

**American Bureau of Shipping  
Incorporated by Act of Legislature of  
the State of New York 1862**

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## Updates

### March 2016 consolidation includes:

- December 2015 version plus Notice No. 1

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## Commentary

The SOLAS Chapter V/Reg.20, as amended, requires that Voyage Data Recorders (VDR) are to be installed on vessels on or after 1 July 2002\*, (\*an implementation schedule is set by IMO based on date of construction, type and/or size of vessels). This has affected the ABS Guide for Hull Condition Monitoring System, which necessitated implementing appropriate changes to the Guide. Accordingly, the necessary changes occurred for the **HM3** notation and are as follows:

1. “Voyage Data Recorders” (“VDR”) replaces the term “Voyage Data Monitors” (“VDM”) in order to align the Guide’s nomenclature with SOLAS.
2. Since Voyage Data Recorders (VDR) are mandatory, the **Full VDM** option is reclassified as **VDR** and the **Qualified VDM** option is deleted.
3. Approved by an Administration, VDRs would be acceptable in partial fulfillment for the **HM3 VDR** notation, provided that additional requirements set by the Guide above those required by IMO Res. A.861(20) are met. These are the existing requirements:
  - a. Data recorded is to be kept for at least 24 hours (v.s. *12 hours for IMO*) before it is overwritten.
  - b. System is to operate from an uninterruptible power supply (UPS) with at least four (4) hours (v.s. *2 hours for IMO*) backup.

## Foreword (15 December 2015)

This Guide discusses the need for the fitting of Hull Condition Monitoring Systems on vessels, describes the uses to which they and the data they acquire can be put, gives performance specifications for the various types of systems and lays down criteria against which ABS can award notations that will be entered in the *ABS Record*. It is applicable to all types and sizes of merchant vessels.

The scope of the system, the nature of the display and the form and aims of data processing are largely decisions that should to be made by the vessels’ Owners in conjunction with the system suppliers. However, ABS is prepared and able to give advice and assistance in this respect.

The condition monitoring systems covered by this Guide extend from simple one-motion monitoring systems to sophisticated voyage data recorders covering a multitude of hull, systems and machinery parameters.

The overall Hull Condition Monitoring process is one of:

- Data measurement
- Data collection and conditioning
- Data processing and evaluation
- Results presentation and storage

The reason for fitting hull monitoring systems is to acquire, display and/or record information and then use the information as a basis for making decisions that will improve operational efficiency and/or safety. As ABS is primarily interested in the enhanced safety aspects that can be obtained by the correct use of monitoring systems, any vessel fitted with a system and complying with the requirements of this Guide will be awarded appropriate notations for entry in the *ABS Record*.

The Performance Specification of a Hull Condition Monitoring system must depend to a large extent on what the system is intended to do. It is not possible in a Guide such as this to be specific about all possible systems. The Guide concentrates on what to do rather than on how to do it.

In some cases, there will be mutual benefit to ABS and the Owner for output to be made available to ABS for improving safety in accordance with the ABS mission. This will be the subject of separate discussions with the Owner.

This edition of the Guide supersedes the 1995 Guide. It includes new notations to cover a broad range of hull monitoring aspects and requirements. See the table in 1/3.1.

This Guide becomes effective on 15 December 2015.

Users are advised to check periodically on the ABS website [www.eagle.org](http://www.eagle.org) to verify that this version of this Guide is the most current.

*We welcome your feedback. Comments or suggestions can be sent electronically by email to [rsd@eagle.org](mailto:rsd@eagle.org).*

# GUIDE FOR HULL CONDITION MONITORING SYSTEMS

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