IALA GUIDELINE

1046

RESPONSE PLAN FOR THE MARKING OF NEW WRECKS

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DOCUMENT REVISION

Revisions to this IALA Document are to be noted in the table prior to the issue of a revised document.

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1. INTRODUCTION

Following an incident as a result of which a new and dangerous wreck occurs, certain measures will have to be taken by the responsible authorities in order to avoid further incidents and to prevent loss of life and/or pollution. These measures are included in the existing IALA Maritime Buoyage System (MBS) under section 7 – New Dangers.

The wreck of the 'Tricolor' in the Dover Straits has brought into sharp focus the effective responses required to adequately mark such dangerous wrecks and to prevent further collisions with the wreck. Incidents following the wreck of the 'Tricolor' identified a requirement to provide marking options in addition to those identified in the MBS, as well as a requirement for emergency wreck marking contingency planning. The aim of such planning would be to ensure that an immediate, effective and well co-ordinated response can be given in such a situation.

1.1. SCOPE

These Guidelines provide the basis for developing an Emergency Wreck Marking Plan (EWMP). The EWMP points out procedures to be observed, as well as considerations to be taken into account with respect to all necessary measures that should be taken by the authorities when confronted with a new dangerous wreck or an obstruction as a result of an incident within their area of responsibility.

These Guidelines identify the considerations, decision process and possible actions that administration may take when responding to a requirement to mark a new and dangerous wreck or obstruction.

2. CONSIDERATIONS

Administrations need to assess their areas of responsibility and response capability. This includes carrying out risk assessments, assessing response capabilities and resources and consideration of plans to deal with such situations.[1] Aspects of such a risk assessment should include:

1 Analysis of responses capabilities;

2 Indication of areas of Responsibility;

3 Assessment of response required in specific areas;

4 Indication of response times;

5 Indication of intervention times;

6 Assessment of mobile resources e.g. pollution combating vessels, buoy tenders, Emergency Towing Vessels, guardships, buoys, temporary VTS capability;

7 Assessment of electronic resources such as AIS and information systems.

A helpful tool for decision making with respect to the marking of wrecks that should be developed beforehand is a 'marking requirements map', indicating the different marking requirements in specific sea-areas. For each of these areas the marking requirements should be based on information and knowledge of the types and size of shipping in the area, traffic patterns and minimum under-keel clearance requirements.

3. DECISIONS AND ACTIONS

Authorities may consider their response in the following order of priority: (see the flow diagram at ANNEX A)

1 Immediate broadcast of initial Safety message (navigational warning) concerning the new dangerous wreck.

1 IALA Guideline 1018 on Risk Management refers

2 Obtain as much information as possible about the new wreck.

3 Consider deployment of a Guard ship on the location of the new wreck.

4 Consider whether temporary VTS is necessary on the new wreck.

5 Consider AIS applications.

6 Initial marking of the wreck position.

7 Survey the wreck.

8 Consider the permanent marking of the wreck.

9 Issue updates.

10 Consider whether continuation of temporary VTS is necessary.

11 Consider whether removal of the wreck is necessary.

12 Identify steps to take if the wreck is not to be removed.

3.1. IMMEDIATE BROADCAST OF AN INITIAL SAFETY MESSAGE CONCERNING THE NEW DANGEROUS WRECK

Especially in busy waterways, a new dangerous wreck or obstruction has the capability to cause loss of life, environmental damage and economic impact. Although, in most incidents detailed information is not directly available, it is very important that initial information of a new wreck or an obstruction, regardless of how scant it may be, is made known to shipping without delay.

An Initial Safety message (navigational warning), indicating the approximate position of the new wreck and any other relevant information, should be broadcast without delay on:

1 VHF* (announced on DSC - digital selective calling)

2 MF*(announced on DSC)

3 HF*(announced on DSC)

4 AIS

5 NAVTEX*

6 INMARSAT (EGC)

7 Mobile phone

8 Internet (email)

9 Any other communications means available

*In certain circumstances it might be necessary to issue an urgent navigational warning.

3.2. OBTAIN AS MUCH INFORMATION AS POSSIBLE ABOUT WRECK

Information about a new wreck should be gathered as soon as possible. In certain situations, this process might well start even before a wreck is actually a fact. For example, after a collision, as a result of which a ship is slowly drifting and sinking, any relevant information as to the status of the damaged vessel should be monitored. The sooner the actual location of a wreck is known the better as this will save valuable time so as to be able to initially mark the wreck and issue navigational warnings. This will also reduce the risk of other ships hitting the wreck whilst it is still unmarked.

In circumstances where a ship sinks with no other ship in the vicinity able to report/confirm the position, the wreck location should be established as soon as possible so that navigational warnings can be issued and initial marking of the wreck location can be carried out.

3.3. CONSIDER DEPLOYMENT OF GUARD SHIP

A new wreck can be very dangerous for shipping, not only when its position is not exactly known and is still unmarked, but even when the position is known and the wreck is properly marked. In the past, many wrecks have caused numerous problems resulting in damage, pollution and even loss of life.

When confronted with a new, possibly dangerous wreck, authorities should decide as soon as possible if it is necessary to send a 'guard ship' to the location of the wreck in order to 'guard' the location and inform ships navigating near the wreck position of the new danger. The guard ship should be well equipped for her task and should be able to stay on position in all weather conditions and sea states. The guard ship may be fitted with a racon, Morse code 'D'. It may also be fitted with the proposed blue/yellow alternating lights that some administrations are promoting specifically for new dangerous wrecks.

3.4. CONSIDER TEMPORARY VTS

In busy shipping areas such as Traffic Separation Schemes (TSS), precautionary areas, channels, harbour approaches, etc. the establishment of a guard ship may not be sufficient / appropriate. Action to establish a temporary VTS at the wreck location should be considered.

When a temporary VTS is established at the wreck location, certified VTS operators should ideally be employed to staff the centre.

3.5. CONSIDER AIS APPLICATIONS

AIS applications may be appropriate to physically mark the area of the wreck, promulgate information concerning the wreck or virtually mark the wreck (virtual AIS). This may be particularly relevant if the weather and sea state prevent ship deployment.

3.6. INITIAL MARKING OF THE WRECK

A new dangerous wreck, which is a danger to shipping, must be marked. Weather conditions, sea state and unknown facts about the new wreck can all hamper timely marking. Irrespective of these circumstances it is of great importance that the wreck location is marked as soon as possible and can be readily recognised by ships as a new wreck location. The IALA MBS provides a means of marking new dangers through the use of appropriate Cardinal or Lateral buoys using VQ or Q light characters, with duplicate marks that are identical to their partners in all respects. In addition, new dangers may be marked by a Racon with Morse code 'D'.

Some administrations have developed an 'emergency wreck buoy' designed specifically for new, dangerous wrecks and to have 'high impact recognition' for the navigator. Administrations are invited to consider the deployment of such a buoy to mark a new, dangerous wreck. The buoy should be placed as close to the wreck as possible, and within any other marks that may be deployed. This buoy is coloured blue and yellow in vertical stripes. It is fitted with an alternating blue and yellow light. Ideally it should be fitted with a Racon Morse code 'D'. The characteristics and location of the buoy should be promulgated to the mariner by all available means.

The wreck buoy should be maintained in position until the wreck is well known and has been promulgated in nautical publications, or until the wreck has been fully surveyed and exact details such as position and swept clearance above the wreck are known, and permanent marking of the wreck has been carried out.

3.7. SURVEY OF THE WRECK

A survey of the new wreck should be performed as soon as possible. Survey information and details should include, as a minimum, the:

- exact position of the wreck;
- stability of the wreck;
- wreck orientation or heading;

- swept depth above the wreck.

3.8. CONSIDER THE PERMANENT MARKING OF THE WRECK

As soon as the wreck survey details are available, taking into account factors such as shipping routes and traffic density, the marking of the wreck should be reconsidered. When considering more permanent marking solutions, factors to take into account include:

- the use of the MBS:
  - is the initial marking, as per MBS, sufficient?
  - is there a requirement to reposition the marks?
  - is additional marking needed?
  - are there other solutions?
- danger indicators on the wreck;
- AIS and AtoN information.

3.9. ISSUE UPDATES

As soon as further survey details and information concerning the wreck becomes available, shipping and relevant authorities should be informed immediately.

As survey information and updates are received, mariners should be informed through MSI (Marine Safety Information) systems such as EGC, NAVTEX, NtoM, etc.

3.10. CONSIDER WHETHER CONTINUATION OF VTS IS NECESSARY

Irrespective of all measures taken earlier (navigational warnings, marking, etc.) it may be necessary to decide to continue VTS on the wreck location. In case of an extremely dangerous wreck, for instance in the middle of a busy shipping route or shipping lane, a VTS on location may be considered essential to avoid collision, either with the wreck or between ships which are manoeuvring past the dangerous wreck. As an ongoing aspect of the EWMP, Pilot stations, VTS and other allied services in the area should notify mariners of the dangerous wreck.

3.11. CONSIDER WHETHER REMOVAL OF THE WRECK IS NECESSARY

Based on risk assessment, taking into account traffic densities, traffic patterns, under-keel clearances, draft restrictions, etc. authorities should consider whether the removal of the wreck is necessary.

If the decision is made to remove the wreck, a comprehensive salvage plan must be developed. It should again assess the risk and consider all aspects of the operation.

3.12. IDENTIFY STEPS TO TAKE IF WRECK IS NOT TO BE REMOVED

If it is decided not to remove the wreck, permanent marking requirements must be reconsidered (see section 3.8), and the wreck must be charted permanently through the Hydrographic Office.

4. DEFINITIONS

Dangerous wreck	Any wrecks or obstructions in navigable water that pose a hazard to navigation
Guard ship	A vessel, which can be tasked to guard the area of a wreck to warn other vessels of the new danger posed.
Racon	Radar transponder beacon

5. ACRONYMS

AIS	Automatic Identification System
AtoN	Aid(s) to Navigation
DSC	Digital Selective Calling
EGC	Enhanced Group Calling
ETV	Emergency Towing Vessel
EWMP	Emergency Wreck Marking Plan
HF	High frequency (3 – 30 MHz)
INMARSAT	International Maritime Satellite Organization
MBS	IALA Maritime Buoyage System
MF	Medium Frequency (300 kHz to 3 MHz)
MSI	Marine Safety Information
NAVTEX	Navigational Telex (a data transmission MSI service operating on 500 KHz)
NOTMAR	Notices to Mariners
Q	Quick
TSS	Traffic Separation Scheme(s) (IMO)
VHF	Very High Frequency (30 MHz to 300 MHz)
VQ	Very quick
VTS	Vessel Traffic Services

ANNEX A FLOW CHART FOR EMERGENCY MARKING OF DANGEROUS WRECKS