ADOPTION OF AUTO RELEASING NEW DANGER MARK BUOY ON VESSELS

TEAM LIFE SAVIOR

Contents

01. Background

AUTO RELEASING
NEW DANGER MARK BUOY
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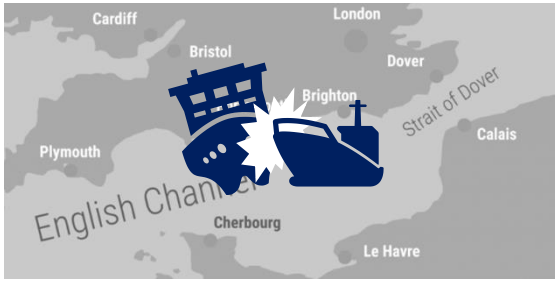
I. MV TRICOLOR

Name	Tricolor
Class & Type	PCTC
Tonnage	49,792 GT
Length	190m



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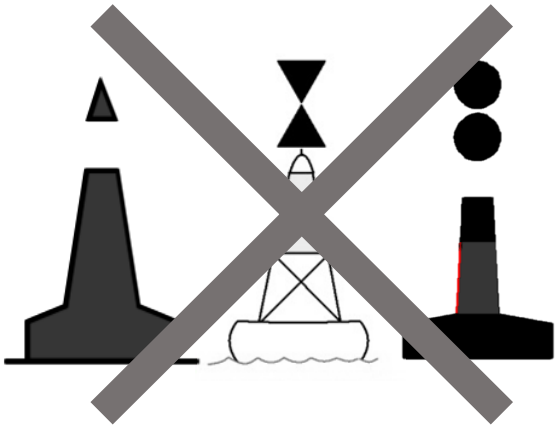
II. NEW DANGER MARK BUOY

On position Avoid danger Safe navigation



Initial recognition of danger

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III. AUTO RELEASING NEW DANGER MARK BUOY

Economic aspect

Time-related aspect

Solve problem

Maximize function

AUTO RELEASING NEW DANGER MARK BUOY

02. Limitations & Problems

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NEW DANGER MARK BUOY
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01. BACKGROUND
02. LIMITATIONS&PROBLEMS
03. PROPOSAL TO IMO
04. CONCLUSION

I. CHEONAN WATSHIP INCIDENT

<LIMITATION>

- Installation
- Management

- Took 1 month for recovery
- To reduce cost to 5%
- Used simplified buoy

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01. BACKGROUND
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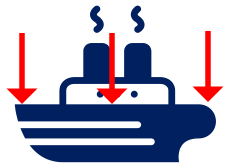
II. SEWOL CRISIS

Immediate installation impossible

Korean Ministry of Maritime Affairs and Fisheries

~~New Danger Mark Buoy~~

Buoyant air bags X 3



III. PROBLEMS OF TEMPORARY BUOY

Legal liability

Installation

Labor Force

Immediate response unable

AUTO RELEASING NEW DANGER MARK BUOY

BUOY *CHAIN* *VESSEL*

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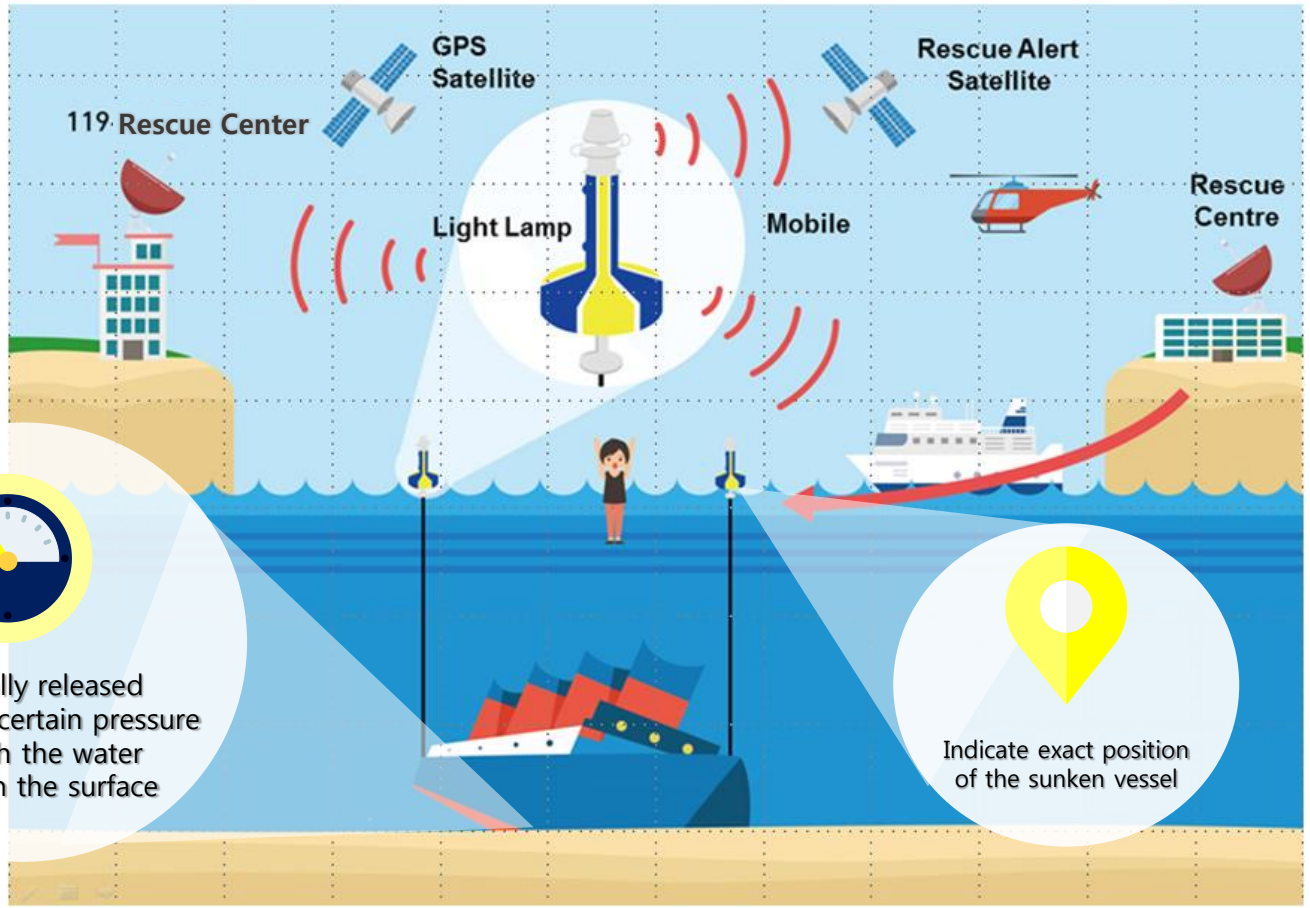
IV. AUTO RELEASING NEW DANGER MARK BUOY

Efficient SAR

Prevent secondary accident



03. Proposal to IMO

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NEW DANGER MARK BUOY
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[Amendment to The International Convention For the Safety of Life at Sea, 1974]

ANNEX

AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED

CHAPTER III
LIFE-SAVING APPLIANCES AND ARRANGEMENTS

PART B
REQUIREMENTS FOR SHIPS AND LIFE-SAVING APPLIANCE

SECTION I
PASSENGERS SHIPS AND CARGO SHIPS

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Regulation 6 - Communications

Title	SOLAS 2008 Amend / Chapter III / Reg. 6.2.2
Effective Date	1/1/2010
For Ships Constructed	On or after 1/1/2010
Retroactive	Retroactive Requirement for Existing Ships.
Reference Materials	Search and rescue locating device, Liferaft, Free-fall lifeboats, RADAR

NEW

2.2 Search and rescue locating devices

2.2.1 At least one search and rescue locating device shall be carried on each side of every passenger ship and of every cargo ship of 500 gross tonnage and upwards. At least one search and rescue locating device shall be carried on every cargo ship of 300 gross tonnage and upwards but less than 500 gross tonnage. Such search and rescue locating devices shall conform to the applicable performance standards not inferior to those adopted by the Organization*. The search and rescue locating devices** shall be stowed in such location that they can be rapidly placed in any survival craft other than the liferaft or liferafts required by regulation 31.1.4. Alternatively one search and rescue locating device shall be stowed in each survival craft other than those required by regulation 31.1.4. On ships carrying at least two search and rescue locating devices and equipped with free-fall lifeboats one of the search and rescue locating devices shall be stowed in a free-fall lifeboat and the other located in the immediate vicinity of the navigation bridge so that it can be utilized on board and ready for transfer to any of the other survival craft.

* Refer to the Recommendation on performance standards for survival craft radar transponders for use in search and rescue operations, adopted by the Organization by resolution MSC.247(83) (A.802(19)), as amended) and the Recommendation on performance standards for survival craft AIS Search and Rescue transmitter (AIS SART), adopted by the Organization by resolution MSC.246(83).

** One of these search and rescue locating devices may be the search and rescue locating device required by regulation IV/7.1.3.

- 1. Existing section 2.2 is renumbered as 2.2.1. A new paragraph is inserted after the renumbered paragraph 2.2.1 as follows:

NEW "2.2.2 At least one auto releasing new danger mark buoy must be carried on **both bow and stern** on every passenger ship and of every cargo ship of 500 gross tonnage and upwards. At least one auto releasing new danger mark buoy must be carried on either bow or stern on every cargo ship of under 500 gross tonnage."

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ADOPTION OF
AUTO RELEASING NEW DANGER MARK BUOY
ON VESSELS

1. Introduction
2. Auto releasing new danger mark buoy equipment
3. Characteristics of Auto buoyant new danger mark buoy mentioned in clause 2.1 of this resolution
4. Performance standards for "Auto releasing new danger mark buoy"
5. Removal of Auto releasing new danger mark buoy

AUTO RELEASING
NEW DANGER MARK BUOY
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I . Introduction

Auto releasing new danger mark buoys are intended to prevent secondary accidents such as collision with the wreck as well as assist easy identification of the position of sinking vessel for quicker and more efficient search and rescue activities.

2. Auto releasing new danger mark buoy equipment

The term "Auto releasing new danger mark buoy" equipment as used in this resolution includes all the components and units necessary for the system to properly perform its intended functions. The "Auto releasing new danger mark buoy" equipment include the following minimum components:

.1 an **auto buoyant new danger mark buoy**;

.2 an **auto release unit**;

.3 an **auto reel chain**;

.4 an **auto lighting lantern**.

Same appearance as
current new danger mark buoy

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NEW DANGER MARK BUOY
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3. Characteristics of Auto buoyant new danger mark buoy mentioned in clause 2.1 of this resolution

The Auto buoyant new danger mark buoy will :

.1 be a **pillar or a spar buoy**;

.2 have a **size** each member state is regulating on its new danger mark buoy;

.3 be **coloured** in equal number and dimension of blue and yellow vertical stripes (minimum 4 and maximum 8);

.4 use a **racon Morse Code "D"** and **AIS transponder**.

4. Performance standards for "Auto releasing new danger mark buoy"

The Auto releasing new danger mark buoy should :

.1 be capable of floating by buoyancy;

.2 be rigidly fixed on the vessel by an auto release unit;

.3 be equipped with auto release unit that can measure the water pressure and release the buoy when at depth of between 1.5 meters to 4 meters;

.4 be connected with an auto reel chain of up to 100 meters based on its main area of navigation and size of the ship;

.5 be capable of unwinding the chain when vessel starts sinking and stops unwinding when the buoy reaches the sea surface and ship reaches the sea floor;

.6 be provided with a auto lighting lantern that automatically activates when the buoy is released from its stowed position;

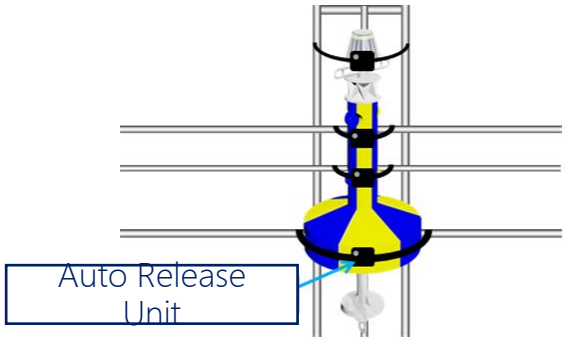
.7 be capable of producing energy for the lantern to be activated without any through solar heating;

.8 be capable of flashing light vertically and horizontally for efficient search and rescue activities.

4. Performance standards for "Auto releasing new danger mark buoy"

.2 be **rigidly fixed** on the vessel by an auto release unit;

.3 be equipped with **auto release unit** that can measure the water pressure and release the buoy



4. Performance standards for "Auto releasing new danger mark buoy"

.4 be connected with an **auto reel chain** of up to 100 meters based on its main area of navigation and size of the ship;

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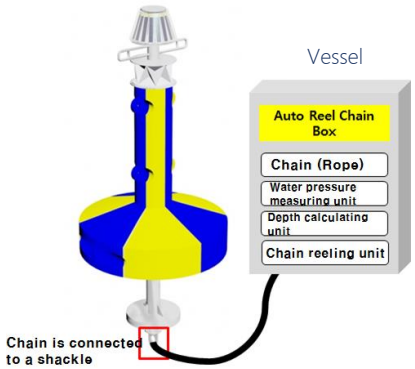
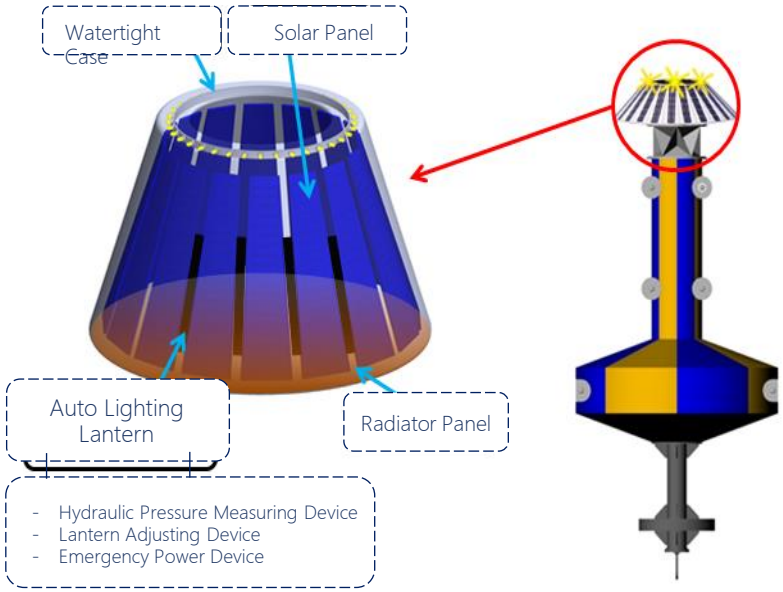


4. Performance standards for "Auto releasing new danger mark buoy"

.6 be provided with a **auto lighting lantern** that automatically activates when the buoy is released from its stowed position;

.7 be capable of **producing energy for the lantern** to be activated without any through solar heating;

.8 be capable of **flashing light** vertically and horizontally for efficient search and rescue activities.



5. Removal of Auto releasing new danger mark buoy

Auto releasing new danger mark buoy should not be removed from its position until a more permanent form of marking of the wreck has been installed or the danger is totally removed.

04. Conclusion

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Possibility
of Accidents

0%

PREVENT
&
ACTION

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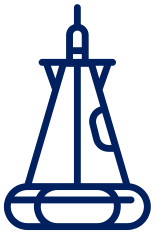
Benefits of Auto Releasing New Danger Mark Buoy

Reduce **secondary accidents** with the **wrecks**



Installation of
Standard Buoy

Time consuming

Require clear position

Environmental factors

Special ship needed

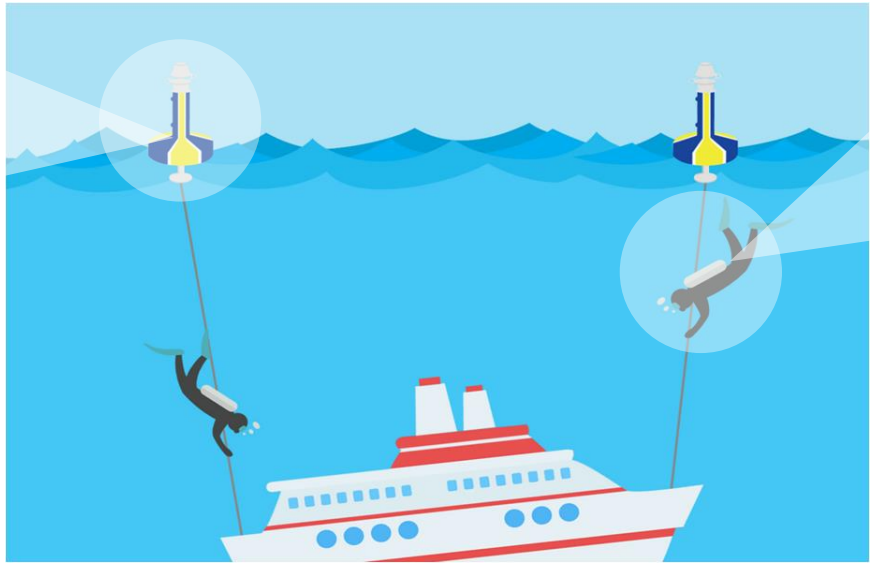
Eliminate obstacles

Benefits of Auto Releasing New Danger Mark Buoy

Efficient Search and Rescue

Easily identified position

Time saving



Diver's guideline

More life saved

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NEW DANGER MARK BUOY
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ENHANCED SAFETY OF LIFE AT SEA


THANK
YOU
TEAM LIFESAVIOR