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SHIP SAFETY BULLETIN

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Subject: **NAVIGATION BRIDGE VISIBILITY**

Introduction

These guidelines are based on those introduced by the International Maritime organization (IMO), originally promulgated as a Maritime Safety Committee (MSC) Circular Number 403, and now formalized as IMO Resolution A.708(17) dated November 6, 1991.

The Marine Safety Advisory Council (MSAC) discussed these international guidelines and provided Canadian input during their development. The Coast Guard will continue to monitor closely the application of these guidelines to assess if more formal procedures are required.

GUIDELINES ON NAVIGATION BRIDGE VISIBILITY

1 Scope

1.1 These guidelines have been developed to ensure that designs of ships provide adequate visibility from the navigation bridge.

2 Application

2.1 The guidelines apply to ships constructed after January 2, 1992 where bridge duty is regularly maintained. Builders and designers of ships are urged to use these guidelines during a ship's design process. Regional offices will be responsible for advising and commenting on bridge visibility at the planning and construction stages.

2.2 When ships of unconventional design cannot comply with the guidelines, arrangements may be considered that provide a level of visibility that is as near as possible to the level recommended in these guidelines.

Keywords:

1. Bridge Visibility
2. Ship Design
3. IMO

Questions concerning this Bulletin should be addressed to:

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Canada

2.3 The application of paragraphs 3.2 and 3.3 to existing ships will also be considered. However, structural alterations or addition of equipment need not be required.

2.4 In cases of doubt as to the level of bridge visibility on an existing ship, these guidelines will be used as the preferred standard.

3 Field of vision

3.1 Every effort should be made to place the bridge above all other decked structures, not including funnels, which are on or above the freeboard deck.

3.2 The view of the sea surface from the conning position should not be obscured by more than two ship lengths, or 500 metres, whichever is less, forward of the bow to 10° on either side irrespective of the ship's draught, trim and deck cargo.

3.3 Blind sectors caused by cargo, cargo gear and other obstructions forward of the beam obstructing the view of the sea surface as seen from the conning position, should not exceed 10° each. The total arc of blind sectors should not exceed 20°. The clear sectors between blind sectors should be not less than 5°. However, in the view described in 3.2, each individual blind sector should not exceed 5°.

3.4 The height of the lower edge of the navigation bridge front windows above the deck should be kept as low as possible. In no case should the lower edge present an obstruction to the forward view as described in these guidelines.

3.5 The upper edge of the navigation bridge front windows should allow a forward view of the horizon, for a person with an eye height of 1800 mm, at the conning position when the ship is pitching in heaving seas.

3.6 The horizontal field of vision from the conning position should extend over an arc from more than 22.5° abaft the beam on one side, through forward, to more than 22.5° abaft the beam on the other side.

3.7 From each bridge wing the field of vision should extend over an arc from at least 45° on the opposite bow through dead ahead and then aft to 180° from dead ahead.

3.8 From the main steering position the field of vision should extend over an arc from dead ahead to at least 60° on each side.

3.9 The ship's side should be visible from the bridge wing.

4 Windows

4.1 Framing between navigation bridge windows should be kept to a minimum and not be installed immediately forward of any work station.

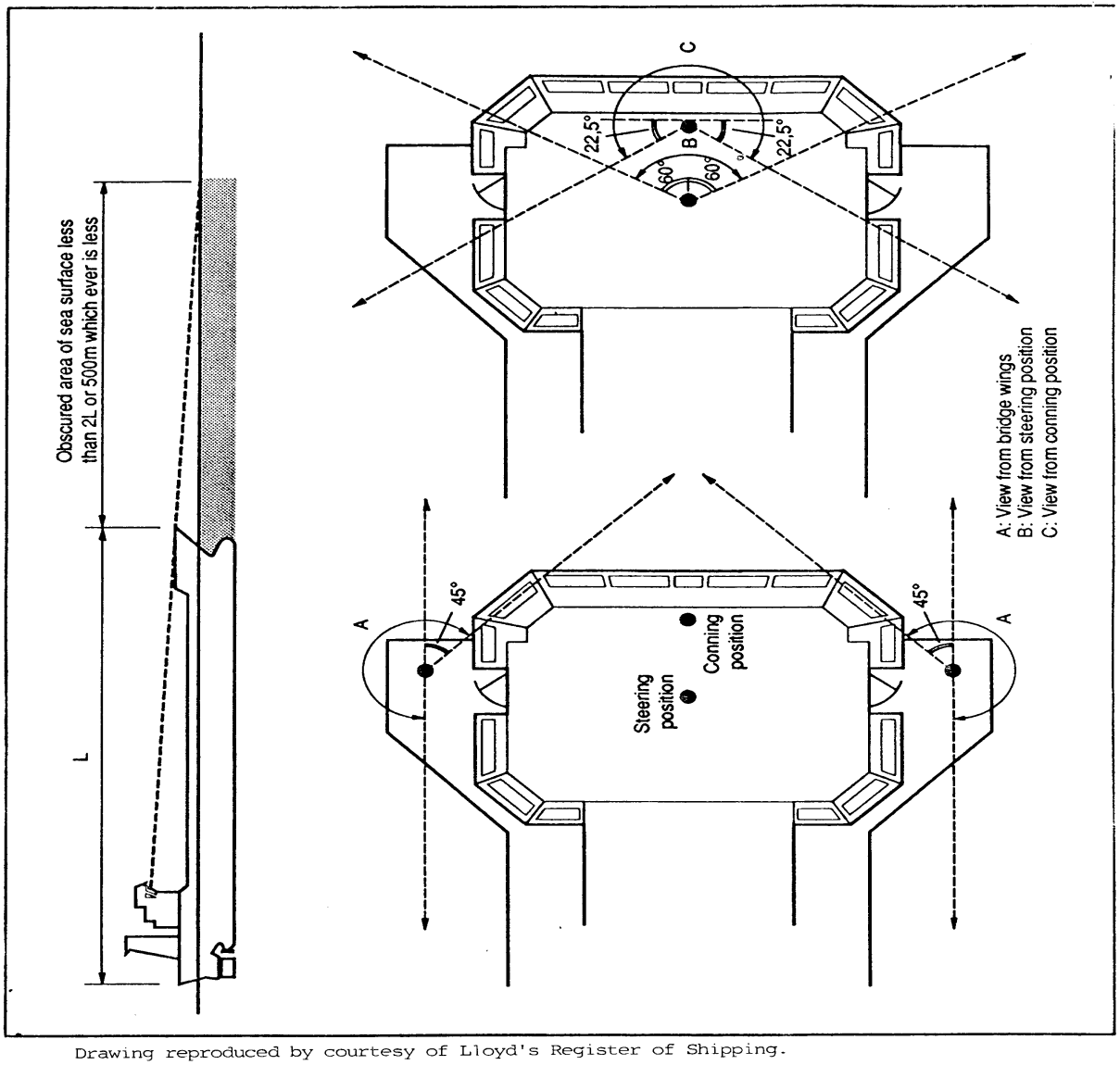
4.2 To help avoid reflections, the bridge front windows should be inclined from the vertical plane top out, at an angle of not less than 10° and not more than 25°.

4.3 Polarized and tinted windows should not be fitted.

4.4 A clear view through at least two of the front windows and, depending on the bridge configuration, an additional number of clear view windows should be provided at all times regardless of weather conditions.

Note: 1. This Bulletin replaces Ship Safety Bulletin No. 8/86.

2. A diagram showing the field of vision is attached.



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