



Guidance to assist with preparations for the Concentrated Inspection Campaign on “Safety of Navigation” to be jointly conducted by the Paris MoU and Tokyo MoU in 2017

The Paris MoU and Tokyo MoU will conduct a joint Concentrated Inspection Campaign (CIC) on Safety of Navigation from 1 September to 30 November 2017. Other regional PSC regimes may also conduct CICs on “Safety of Navigation” in 2017, using the same or similar standard questionnaire.

CICs typically focus on specific topics where high levels of deficiencies have been encountered by PSCOs, or where new international statutory requirements have recently entered into force. They are conducted annually and are combined with a regular PSC inspection of a ship. Regional PSC regimes, such as the Paris MoU and Tokyo MoU, often seek to jointly conduct CICs to enhance the harmonization of PSC measures worldwide.

This document provides guidance and information on the CIC being jointly conducted by the Paris MoU and Tokyo MoU based on the information available at the time of publication. It was developed to assist shipowners and operators prepare for PSC inspections involving this CIC. Specific information and guidance is provided for each question on the standard questionnaire. The information and guidance provided in this document should not be seen, in any way, as superseding or replacing relevant guidance provided by a ship’s flag State or on preparations for PSC inspections in general.

The results of the CIC are expected to be released by the Paris MoU and Tokyo MoU in mid-2018, and are anticipated to be reported, alongside any recommendations, to the IMO Sub-Committee on the Implementation of IMO Instruments (III).

Applicability of the CIC

The CIC will, in whole or in part, be applicable to all ships, and will be conducted on all ships eligible or due for PSC inspection in ports in the Paris MoU and Tokyo MoU regions during the period of the CIC. Ships are expected to be targeted for inspection in accordance with existing procedures used by PSC authorities.

Standard questionnaire for the CIC

The standard questionnaires prepared by the Paris MoU and Tokyo MoU for use by PSCOs during the CIC are reproduced in this document on page 4 and page 5 respectively. The only relevant difference between the two questionnaires is that the Paris MoU version contains regulation references alongside each question. The questionnaires were issued by press release on 31 July 2017 (see [Paris MoU](#) and [Tokyo MoU](#)).

The 12 questions it contains require a “Yes”, “No” or “Not Applicable” answer from the PSCO. “No” answers will result in a deficiency being issued. If “No” is selected for questions marked on the standard questionnaire with an “*”, PSCOs are asked to use their professional judgement regarding the seriousness of the deficiency to determine whether the ship may be considered for detention.

Relevant IMO instruments

- International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended;

- International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, as amended; and
- Convention on the International Regulations for Preventing Collisions at Sea (COLREG), 1972 as amended.

Relevant IMO performance standards

- Resolution A.861(20), as amended – Performance Standard for Shipborne Voyage Data Recorders (VDR);
- Annex 3 of Resolution MSC.74(69) – Recommendation on Performance Standards for an Universal Shipborne Automatic Identification Systems (AIS);
- Resolution MSC.128(75) – Performance Standards for a Bridge Navigational Watch Alarm System (BNWAS);
- Resolution MSC.163(78), as amended – Performance Standards for Shipborne Simplified Voyage Data Recorders (S-VDRs);
- Resolution MSC.253(83) – Adoption of the Performance Standards for Navigation Lights, Navigation Light Controllers and Associated Equipment; and
- Resolution MSC.333(90) – Adoption of Revised Performance Standards for Shipborne Voyage Data Recorders (VDR).

Relevant IMO guidance

- Resolution A.893(21) – Guidelines for voyage planning;
- Resolution A.918(22), as amended – IMO Standard Marine Communication Phrases;
- Resolution A.1052(27) – Procedures for Port State Control, 2011;
- Resolution A.1104(29) – Survey Guidelines Under the Harmonized System of Survey and Certification (HSSC), 2015;
- Resolution A.1106(29) – Revised Guidelines for the Onboard Operational Use of Shipborne Automatic Identification Systems (AIS);
- MSC.1/Circ.1222 – Guidelines on Annual Testing of Voyage Data Recorders (VDR) and Simplified Voyage Data Recorders (S-VDR);
- MSC.1/Circ.1252 – Guidelines on Annual Testing of the Automatic Identification System (AIS);
- MSC.1/Circ.1474 – Guidance on the Bridge Navigational Watch Alarm System (BNWAS) Auto Function;
- MSC.1/Circ.1503/Rev.1 – ECDIS – Guidance for good practice; and
- STCW.7/Circ.24/Rev.1 – Guidance for Parties, Administrations, port State control authorities, recognized organizations and other relevant parties on the requirements of the STCW Convention, 1978, as amended.

Relevant IHO Guidance

- www.iho.int > ENC's, ECDIS & S-100.

Relevant ICS guidance

- Bridge Procedures Guide, 5th Edition; and
- Steering Gear Test Routines Checklist (2016)

Other guidance

- Australian Maritime Safety Authority Marine Notice 6/2017 on nautical charts and publications; and
- Australian Maritime Safety Authority Marine Notice 7/2017 on ECDIS.

Important Note

This document is intended as voluntary advice which shipowners and operators are not in any way obligated to accept, although they are invited to consider its value in the context of their preparations for the Concentrated Inspection Campaign (CIC) on the "Safety of Navigation" being held from 1 September to 30 November 2017.

While the information in this document has been developed using the best information sources currently available, it is intended purely as information and guidance to be used at the user's own risk. No responsibility is accepted by ICS or by any person, firm, corporation or organisation who or which has been in any way concerned with the furnishing or supply of information, compilation, publication or authorised translation of this information, for the accuracy of the information herein, or for any omission or for any consequences whatsoever resulting directly or indirectly from using the information contained herein even if caused by want of due diligence or reasonable care.

Paris MoU Standard Questionnaire¹

QUESTIONNAIRE CONCENTRATED INSPECTION CAMPAIGN ON SAFETY OF NAVIGATION (SOLAS CH.V) 2017

Inspection Authority:			
Ship Name:		Flag:	
IMO Number:		Classification Society:	
Date of Inspection		Inspection Port:	

No.	Item	Yes	No	N/A
Q.1*	Is ship's navigation equipment in accordance with its applicable safety certificate (SEC,PSSC, CSSC)? (S74/CII/R12)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.2*	Does the ECDIS have the appropriate up-to-date electronic charts for the intended voyage and is there a suitable back-up arrangement? (S74/CV/R19.2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.3	Is there evidence that all watchkeeping officers comply with STCW requirements for ECDIS? (STCW/A-III/1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.4*	Can watchkeeping officers demonstrate familiarization with ECDIS? (STCW/A-VIII/2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.5*	Can ship's VDR/SVDR record data fully? (S74/CV/R18)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.6*	Is second and/or third stage remote audible alarm of BNWAS recognized? (S74/CV/R19.2.2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.7	Is the ship's Automatic Identification System transmitting correct particulars? (S74/CV/R19.2.4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.8	Does the passage plan cover the whole voyage? (S74/CV/R34,STCW/A-VIII/2)	<input type="checkbox"/>	<input type="checkbox"/>	
Q.9*	Does all crew know and respect the official working language as established and recorded in the ship's logbook? (S74/CV/R14)	<input type="checkbox"/>	<input type="checkbox"/>	
Q.10*	Is the crew familiar with the procedure of emergency operation of steering gear? (S74/CII-1/R29, S74/CV/R26)	<input type="checkbox"/>	<input type="checkbox"/>	
Q.11*	Are the exhibition of navigation/signal lights in accordance with the requirements of COLREG72? (COLREG72/CIII: S74/CII-1/R42.2/R43.2)	<input type="checkbox"/>	<input type="checkbox"/>	
Q.12	Is the ship detained as a result of this CIC?	<input type="checkbox"/>	<input type="checkbox"/>	

Notes: If "No" is selected, for questions marked with an "*" PSCO should use his/her professional judgement regarding the seriousness of the deficiency as to whether the ship may be considered for detention. The detail of any deficiencies including serious deficiencies, if any, should be appropriately entered on the PSC Report Form B. Where there is no box in the N/A column, then either box "Yes" or "No" should be selected as appropriate.

¹ Paris MoU (31 July 2017), *Launch of Joint Concentrated Inspection Campaign on Safety of Navigation (SOLAS chapter V)* (Press Release).

Tokyo MoU Standard Questionnaire²

CIC on Safety of Navigation (SOLAS CH.V)

Inspection Authority:			
Ship Name:		IMO Number:	
Date of Inspection		Inspection Port:	

No.	Item	Yes	No	N/A
Q.1*	Is ship's navigation equipment in accordance with its applicable safety certificate (SEC, PSSC, CSSC)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.2*	Does the ECDIS have the appropriate up-to-date electronic charts for the intended voyage and is there a suitable back-up arrangement?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.3	Is there evidence that all watchkeeping officers comply with STCW requirements for ECDIS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.4*	Can watchkeeping officers demonstrate familiarization with ECDIS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.5*	Can ship's VDR/SVDR record data fully?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.6*	Is second and/or third stage remote audible alarm of BNWAS recognized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.7	Is the ship's Automatic Identification System transmitting correct particulars?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.8	Does the passage plan cover the whole voyage?	<input type="checkbox"/>	<input type="checkbox"/>	
Q.9*	Does all crew know and respect the official working language as established and recorded in the ship's logbook?	<input type="checkbox"/>	<input type="checkbox"/>	
Q.10*	Is the crew familiar with the procedure of emergency operation of steering gear?	<input type="checkbox"/>	<input type="checkbox"/>	
Q.11*	Are the exhibition of navigation/signal lights in accordance with the requirements of COLREG72?	<input type="checkbox"/>	<input type="checkbox"/>	
Q.12	Is the ship detained as a result of this CIC?	<input type="checkbox"/>	<input type="checkbox"/>	

Notes: If "No" is selected, for questions marked with an "*" PSCO should use his/her professional judgement regarding the seriousness of the deficiency as to whether the ship may be considered for detention. The detail of any deficiencies including serious deficiencies, if any, should be appropriately entered on the PSC Report Form B. Where there is no box in the N/A column, then either box "Yes" or "No" should be selected as appropriate.

²Tokyo MoU (31 July 2017), *Launch of Joint Concentrated Inspection Campaign on Safety of Navigation (SOLAS chapter V)* (Press Release).

Question 1

“Is ship's navigation equipment in accordance with its applicable safety certificate (SEC, PSSC, CSSC)?”

This question addresses the conformity of a ship's navigational systems and equipment with the equipment listed in the Record of Equipment for the Cargo Ship Safety Certificate (Form C) and Record of Equipment for the Cargo Ship Safety Equipment Certificate (Form E), or Record of Equipment for the Passenger Ship Safety Certificate (Form P), as applicable.

CIC relevant requirements for shipborne navigational systems and equipment are set out in SOLAS regulation V/19 on Carriage Requirements for Shipborne Navigational Systems and Equipment and V/20 on Voyage Data Recorders. Statutory survey and certificate requirements are set out in SOLAS chapter I.

To address the specific CIC question, the PSCO is expected to request to sight Form C and Form E, or Form P, as applicable, and check that the equipment listed under “Details of Navigational Systems and Equipment” is the equipment installed on board.

If a “No” is recorded by the PSCO for this question, the PSCOs are asked to use their professional judgement regarding the seriousness of the deficiency to determine whether the ship may be considered for detention.

Preparations

Ships should ensure that:

- A valid Form C and Form E, or Form P, as applicable, is available on board; and
- The shipborne navigational systems and equipment listed in “Details of Navigational Systems and Equipment” in Form C and Form E, or Form P, as applicable, corresponds to the navigation equipment present on board the ship.

Inspection

Ships should be prepared to show the PSCO:

- A valid Form C and Form E, or Form P, as applicable; and
- The presence and location of shipborne navigational systems and equipment which correspond to the list in “Details of Navigational Systems and Equipment” in Form C and Form E, or Form P, as applicable.

Additional comments

Masters should be prepared to draw the attention of the PSCO to the fact that the CIC should not seek to duplicate the relevant initial, annual, periodical or renewal surveys carried out by appropriate trained and qualified surveyors on behalf of the ship's flag State.

Masters should note that particular attention may be paid to the equipment listed in “Details of Navigational Systems and Equipment” in Form C and Form E, or Form P, as applicable, addressed in CIC questions 2, 5, 6, 7 and 11.

Question 2

“Does the ECDIS have the appropriate up-to-date electronic charts for the intended voyage and is there a suitable back-up arrangement?”

This question addresses:

- The availability of all nautical charts necessary to use ECDIS to plan and display the ship's route for the intended voyage and to plot and monitor positions throughout the voyage; and
- The provision of adequate independent back-up arrangements in the event of an ECDIS failure.

The carriage requirement for ECDIS is set out in SOLAS regulation V/19.2.10 and the carriage requirement for nautical charts and publications is set out in SOLAS regulation V/19.2.1.4.

Ships fitted with ECDIS and ships using ECDIS to meet the chart carriage requirement of SOLAS should carry electronic navigational charts (ENCs) or, where ENCs are not available at all or are not of an appropriate scale for the planning and display of the ship's voyage plan, raster navigational charts (RNC) and/or any necessary paper charts should be carried on board. ENCs, RNCs and paper charts available on the bridge should be official (as defined in SOLAS regulation V/2.2) and adequate³ and up-to-date (as set out in SOLAS regulation V/27).

Ships using ECDIS for navigation are required to have adequate, independent back-up arrangements⁴ which should provide a timely transfer to the back-up system during critical navigation situations and allow the ship to be navigated safely until the termination of the voyage.

To address the specific CIC question, the PSCO is expected to check that the ECDIS system and back-up arrangements are being effectively maintained to facilitate proper operation and safety of navigation.

If a “No” is recorded by the PSCO for this question, the PSCOs are asked to use their professional judgement regarding the seriousness of the deficiency to determine whether the ship may be considered for detention.

Preparations

Ships should ensure that:

- The safety management system (SMS) includes procedures for loading ENC and RNC charts and applying ENC and RNC updates to ECDIS. The SMS should also include procedures for applying corrections to paper chart updates, if applicable;
- The type-approval certificates for all ECDIS are available on board;
- All ECDIS, including ECDIS used to provide an independent back-up arrangement, have been updated to comply with the latest IHO ECDIS Standard, and are therefore capable of displaying ENCs correctly using ECDIS Presentation Library Edition 4.0;⁵
- All ECDIS, including ECDIS used to provide an independent back-up arrangement, are loaded with the appropriate scale charts needed for all phases of the next voyage. The charts should be updated using the latest ENC and RNC chart updates and the latest notice to mariners available on board;
- Records of ECDIS software maintenance are complete, up-to-date and available on board;
- Records of all chart updates are kept in accordance with the procedures contained in the SMS and are complete, up-to-date and available on board; and

³ Particular attention should be paid to ensuring that the available ENCs and RNCs cover the whole berth to berth voyage and are of an appropriate scale (berthing, harbour, approach, coastal and general) for the voyage phase.

⁴ Section 14 of Performance standards for electronic chart display and information systems (ECDIS) (resolution A.817(19), as amended) or Section 14 and Appendix 6 of Revised performance standards for electronic chart display and information systems (ECDIS) (MSC.232.(82), as amended).

⁵ The previous edition of the IHO ECDIS Presentation Library Edition 3.4 expires on 31 August 2017.

- The independent back-up arrangement used on board conforms to the details included in “Details of Navigational Systems and Equipment” in Record of Equipment for the Cargo Ship Safety Certificate (Form C) and Record of Equipment for the Cargo Ship Safety Equipment Certificate (Form E), or Record of Equipment for the Passenger Ship Safety Certificate (Form P), as applicable.

Inspection

Ships should be prepared to show the PSCO:

- The type-approval certificate for all ECDIS installed on board;
- Records of ECDIS software maintenance and ECDIS software status information (in ECDIS) to demonstrate that the ECDIS complies with the latest IHO standard;
- The ECDIS, and the back-up ECDIS, if fitted, has all the official and up-to-date ENC and RNCs which are adequate and necessary for all phases of the next voyage;
- The latest ENC and RNC updates and notices to mariners available on board;
- Records of ENC, RNC and paper chart updates, as applicable;
- If the back-up arrangement is a folio of paper charts, the paper charts are the latest editions of the charts and that they have been corrected to the latest notice to mariners available on board; and
- If the back-up arrangement is a second ECDIS, the back-up is provided with a separate, independent main and emergency power supply.

Additional comments

Masters should be prepared to remind the PSCO that, in accordance with guidance from the IHO, the IHO ECDIS Presentation and Performance Checks in Ships is not intended for, and is not suitable to be used as, a carriage requirement compliance test for ECDIS.

Masters should be aware that:

- All nautical charts used for navigation are required to be issued officially by, or on behalf of a Government, authorized Hydrographic Office or other relevant government institutions (SOLAS regulation V/2.2). A chart from any other source cannot be used to meet the chart carriage requirements of SOLAS. If unofficial charts are in use on ECDIS an “Unofficial data” warning will be automatically displayed;
- The Raster Chart Display System (RCDS) Mode in ECDIS should only be used where there is no ENC coverage. RCDS Mode has reduced functionality and officers performing navigational watchkeeping functions should be familiar with the limitations of RCDS Mode and the paper chart folio back-up requirement; and
- ECDIS installed after September 2015 should have a type-approval certificate which refers to IEC 61174(2015) to show that it complies with the latest IHO ECDIS standard. ECDIS installed before September 2015 but upgraded to meet the new IHO ECDIS standard should be provided with evidence from the manufacturer that the upgrade has been applied before 1 September 2017.

References

MSC.1/Circ.1503/Rev.1 - ECDIS – Guidance for good practice, Section A - Chart carriage requirement of SOLAS;

www.iho.int > ENCs, ECDIS & S-100; and

ICS Bridge Procedures Guide, 5th Edition, Section 4.12, 4.13 and Annex 2.

Question 3

“Is there evidence that all watchkeeping officers comply with STCW requirements for ECDIS?”

This question addresses the training and certification of officers performing navigational watchkeeping functions on board ships fitted with ECDIS.

The 2010 Manila Amendments to the STCW Convention, 1978, as amended, introduced a competence in the use of ECDIS to maintain the safety of navigation into the mandatory minimum requirements for performance of navigation functions by Masters, chief mates (management level) and officers in charge of a navigational watch (OOW) (operational level). Training in the use of ECDIS is not required for those who serve exclusively on ships not fitted with ECDIS equipment.⁶

Certificates of competency (CoC) issued in accordance with the 2010 Manila Amendments to the STCW Convention, 1978, to officers carrying out navigational watchkeeping duties are evidence of having completed all required approved training and that the required standard of competence has been achieved, including competence in the use of ECDIS to maintain the safety of navigation. Any limitations related to ECDIS will be reflected on a certificate, indicating that its holder has not completed training in the use of ECDIS.

The knowledge, understanding and proficiency required in the use of ECDIS is generic to ensure relevant personnel have the necessary skills for basic operation of all types of ECDIS equipment that may be installed on board ships. There is no requirement for the approved training in the use of ECDIS to be type-specific or to be able provide any evidence of training that is specific to the installed equipment.⁷

To address the specific CIC question, the PSCO would be expected to check that officers carrying out navigational watchkeeping duties each hold a valid CoC issued in accordance with the STCW Convention, 1978, as amended, without any limitations concerning ECDIS.

Preparations

Ships should ensure that:

- Officers carrying out navigational watchkeeping duties each hold a valid CoC issued in accordance with the STCW Convention, 1978, as amended, without any limitations concerning ECDIS; and
- A copy of STCW.7/Circ.24/Rev.1 is available on board to enable the Master to use the relevant IMO guidance, if necessary, to clarify the training requirements for ECDIS and provision of the documentation for verification by PSCOs.

Inspection

Ships should be prepared to show the PSCO that officers carrying out navigational watchkeeping duties each hold a valid CoC issued in accordance with the STCW Convention, 1978, as amended, without any limitations concerning ECDIS.

Additional comments

Masters should be prepared to remind PSCOs that there is no special or separate certificate related to ECDIS training required under the STCW Convention, 1978, as amended. Training related to ECDIS forms part of the CoC issued to officers carrying out navigational watchkeeping duties.

Masters should be:

- Aware that there has been some misinterpretation of the requirements of the STCW Convention, 1978, as amended, related to ECDIS by PSCOs and other third-party inspectors. In these cases, PSCOs and representatives from third-party inspection regimes have been

⁶ STCW chapter II (Master and Deck Department), specifically regulation II/1 and section A-II/1, regulation II/2 and section A-II/2, regulation II/3 and section A-II/3.

⁷ STCW.7/Circ.24/Rev.1, paragraphs 11 to 14.

requesting so-called ECDIS training course completion certificates, and suggesting that the documentary evidence should reference the applicable IMO model course; and

- Prepared to advise that there is no basis within the STCW Convention, 1978, as amended, or IMO Procedures for Port State Control, 2011 (A.1052(27)), for PSCOs to require to see so-called ECDIS training course completion certificates. Any expansion of the inspection to review such documentation for this specific CIC question is not aligned with the requirements of the STCW Convention, 1978, as amended, and related IMO guidance (STCW.7/Circ.24/Rev.1).

References

STCW.7/Circ.24/Rev.1 - Guidance for Parties, Administrations, port State control authorities, recognized organizations and other relevant parties on the requirements of the STCW Convention, 1978, as amended (paragraphs 11 to 14); and

MSC.1/Circ.1503/Rev.1 – ECDIS – Guidance for Good Practice, Section E – ECDIS Training.

Question 4

“Can watchkeeping officers demonstrate familiarization with ECDIS?”

This question addresses the familiarity of officers carrying out navigational watchkeeping duties with ECDIS.

Companies are responsible for ensuring that seafarers, on being assigned to any of their ships, are familiarized with the installed equipment relevant to their routine or emergency duties as set out in STCW regulation I/14.1.5. This includes familiarization with ECDIS installed on board for those officers carrying out navigational watchkeeping duties in accordance with STCW section A-VIII/2.

The safety management system (SMS) should include procedures to ensure that new personnel and personnel transferred to new assignments related to safety and protection of the environment are given proper familiarization with their duties. Instructions which are essential to be provided prior to sailing should be identified, documented and given.⁸

To address the specific CIC question, the PSCO may request to sight records or documentation related to familiarization activities relating to the ECDIS installed on board and may conduct an assessment of the ability of officers carrying out navigational duties to use ECDIS to maintain safety of navigation.

If a “No” is recorded by the PSCO for this question, the PSCOs are asked to use their professional judgement regarding the seriousness of the deficiency to determine whether the ship may be considered for detention.

Preparations

Ships should ensure that:

- The SMS includes Company policies and procedures related to familiarization with ECDIS installed on board;
- Officers carrying out navigational watchkeeping duties have been familiarized with ECDIS installed on board in accordance with routine and emergency duties;
- Familiarization with ECDIS installed on board is recorded or documented in accordance with policies and procedures in the SMS; and
- Officers carrying out navigational watchkeeping duties are familiar with the ECDIS installed on board.

Inspection

Ships should be prepared to show the PSCO:

- Records or documentation of familiarization of officers carrying out navigational watchkeeping duties with ECDIS installed on board; and
- If requested, a demonstration of familiarity with ECDIS installed on board by officers that perform navigational duties on board the ship.

Additional comments

Masters are advised that:

- A PSCO may conduct an “assessment” of the ability of seafarers to maintain watchkeeping standards as required by the STCW Convention, 1978, as amended, only if there are clear grounds for the PSCO believing that such standards are not being maintained because any of the following have occurred:
 - Ship has been involved in a collision, grounding or stranding, or

⁸ ISM Code, section 6.3.

- There has been a discharge of substances from the ship when under way, at anchor or at berth which is illegal under any international convention, or
- Ship has been manoeuvred in an erratic or unsafe manner whereby routing measures adopted by the Organization or safe navigation practices and procedures have not been followed, or
- Ship is otherwise being operated in such a manner as to pose a danger to persons, property, the environment, or a compromise to security.⁹
- The abovementioned occurrences that would permit an “assessment” are unlikely to have been met when a ship undergoes a CIC inspection. Therefore any “assessment” conducted by the PSCO may be considered an exceptional request when responding to the CIC question; and
- Whilst an “assessment” of competency by a PSCO is required to commence with verification of certificates (addressed by question 3 of the CIC), STCW section A-I/4 stipulated that an “assessment” can involve requiring a seafarer to demonstrate the related competency at the place of duty.¹⁰

Masters are further advised that elements of an “assessment” could be guided by the knowledge, understanding and proficiency related to ECDIS stipulated by the STCW Convention, 1978, as amended, for officers in charge of a navigational watch on ships of 500 gross tonnage or more:¹¹

- Capabilities and limitations of ECDIS:
 - Understanding of Electronic Navigational Chart (ENC) data, data accuracy, presentation rules, display options and other chart data formats;
 - Knowledge of the dangers of over-reliance on ECDIS; and
 - Familiarity with the functions of ECDIS required by performance standards in force.
- Operation, interpretation, and analysis of information obtained from ECDIS:
 - Use of functions that are integrated with other navigation systems in various installations, including proper functioning and adjustment to desired settings;
 - Safe monitoring and adjustment of information, including own position, sea area display, mode and orientation, chart data displayed, route monitoring, user-created information layers, contacts (when interfaced with AIS and/or radar tracking) and radar overlay functions (when interfaced);
 - Confirmation of vessel position by alternative means;
 - Efficient use of settings to ensure conformance to operational procedures, including alarm parameters for anti-grounding and safety depth, proximity to contacts and special areas, completeness of chart data and chart update status, and backup arrangements;
 - Adjustment of settings and values to suit the present conditions; and
 - Situational awareness while using ECDIS including safe water and proximity of hazards, set and drift, chart data and scale selection, suitability of route (refer to guidance provided under question 8), contact detection and management, and integrity of sensors.

References

MSC.1/Circ.1503/Rev.1 - ECDIS – Guidance for Good Practice, Section E – ECDIS Training.

⁹ STCW regulation I/4.1.3

¹⁰ STCW section A-I/4.3-4

¹¹ STCW table A-II/1

Question 5

“Can ship’s VDR/SVDR record data fully?”

This question addresses the ability of the Voyage Data Recorder (VDR) or Simplified-VDR (S-VDR) to record all data inputs required by SOLAS.

The carriage requirements for VDR and S-VDR are set out in SOLAS regulation V/20. VDR and S-VDR are subject to an annual performance test as set out in SOLAS regulation V/18.8. The data that a VDR or S-VDR is required to record is prescribed in the performance standard for the VDR or S-VDR applicable to the date on which the equipment was installed on board.¹²

To address the specific CIC question, the PSCO is expected to check that the VDR or S-VDR is operational and has been confirmed as being capable of recording all the required data from bridge and navigation systems and equipment by an annual performance test.

If a “No” is recorded by the PSCO for this question, the PSCOs are asked to use their professional judgement regarding the seriousness of the deficiency to determine whether the ship may be considered for detention.

Preparations

Ships should ensure that:

- The type-approval certificate for the VDR or S-VDR is available on board;
- The certificate of compliance for the VDR or S-VDR issued following the most recent annual performance test is available on board;
- The operations manual for the VDR or S-VDR is available on board;
- Records of maintenance of the VDR or S-VDR are available on board; and
- The VDR or S-VDR is operational with no active alarms and main and emergency power supplies are available.

Inspection

Ships should be prepared to show the PSCO:

- The type-approval certificate for the VDR or S-VDR;
- The locations of fixed, float free and long-term recording mediums, as appropriate;
- The availability of main and emergency power supplies;
- The VDR or S-VDR alarm panel and interpret any alarms which may be active; and
- The certificate of compliance for the VDR or S-VDR issued by the manufacturer or a person authorized by the manufacturer following the most recent annual performance test.

Additional comments

Under the Harmonized System of Survey and Certification (HSSC), the annual performance check for a VDR or S-VDR may be carried out:

- Up to 3 months before the due date for a passenger ship; and
- Between 3 months before and 3 months after the due date for a cargo ship.

If necessary, Masters should be prepared to:

¹² VDR installed on board on or after 1 July 2014 should comply with Resolution MSC.333(90) – Adoption of Revised Performance Standards for Shipborne Voyage Data Recorders (VDR). VDR installed on board before 1 July 2014 should comply with Resolution A.861(20) – Performance Standard for Shipborne Voyage Data Recorders (VDR) as amended by MSC.214(81). S-VDR installed on board cargo ships shall comply with MSC.163(78) Performance Standards for Shipborne Simplified Voyage Data Recorders (S-VDRs).

- Advise the PSCO that the inspection of the VDR or S-VDR should not be a repeat of the annual performance test, which should be carried out by the manufacturer or a person authorized by the manufacturer; and
- Remind the PSCO that the data required to be recorded by the VDR or S-VDR is determined by the performance standard applicable at the time the equipment was installed on board.

References

Resolution MSC.333(90) – Adoption of Revised Performance Standards for Shipborne Voyage Data Recorders (VDR);

Resolution A.861(20), as amended – Performance Standard for Shipborne Voyage Data Recorders (VDR);

Resolution MSC.163(78), as amended – Performance Standards for Shipborne Simplified Voyage Data Recorders (S-VDRs);

MSC.1/Circ.1222 – Guidelines on Annual Testing of Voyage Data Recorders (VDR) and Simplified Voyage Data Recorders (S-VDR); and

ICS Bridge Procedures Guide, 5th Edition, Section 4.8.

Question 6

“Is second and/or third stage remote audible alarm of BNWAS recognized?”

This question addresses familiarity with the operation of the Bridge Navigational Watch Alarm System (BNWAS) installed on board, with particular focus on recognition of audible alarms used to alert the Master and officers carrying out navigational watchkeeping duties, and other crew members.

The carriage requirement for BNWAS is provided in SOLAS regulation V/19.2.2.3.

To address the specific CIC question, the PSCO is expected to check that the Master and officers carrying out navigational watchkeeping duties are familiar with the operation of the BNWAS and can recognize the second stage remote audible alarm, and other crew can recognize the third stage audible alarm of the BNWAS.

If a “No” is recorded by the PSCO for this question, the PSCOs are asked to use their professional judgement regarding the seriousness of the deficiency to determine whether the ship may be considered for detention.

Preparations

Ships should ensure that:

- The BNWAS, including emergency call, motion detectors, flashing beacons, remote alarms, are operational;
- The means of selecting the operational mode and dormant period on the main alarm panel is protected from modification or change by anyone other than the Master or an officer authorized by the Master;
- The Master and officers carrying out navigational watchkeeping duties are familiar with the operation of the BNWAS, in particular the emergency call, test and reset functions; and
- The Master and officers carrying out navigational watchkeeping duties and crew are familiar with the second and third stage audible alarms of the BNWAS installed on board; and
- There is no means available to reset the BNWAS from any position other than the bridge.

Inspection

Ships should be prepared to show the PSCO:

- The type-approval certificate for the BNWAS;
- That the BNWAS is operational;
- That officers carrying out navigational watchkeeping duties are familiar with the visual and audible alarms on the bridge and can reset the alarm on the main alarm panel;
- That appropriate procedures are in place to prevent the modification of the operational mode and dormant period by anyone other than the Master or an officer authorized by the Master;
- That the Master and officers carrying out navigational watchkeeping duties are familiar with the second stage audible alarm of the BNWAS installed on board; and
- That other crew are familiar with the third stage audible alarm of the BNWAS installed on board.

Additional comments

Masters should note that, whilst this specific CIC question is focused on second and third stage alarms, it is anticipated that the scope of the inspection may also include general familiarity with the operation of BNWAS.

Masters should further note that MSC.1/Circ.1474 states that “the automatic operational mode, if it is available, should not be used”.

References

Resolution MSC.128(75) - Performance Standards for a Bridge Navigational Watch Alarm System (BNWAS);

MSC.1/Circ.1474 - Guidance on the Bridge Navigational Watch Alarm System (BNWAS) Auto Function; and

ICS Bridge Procedures Guide, 5th Edition, Section 4.6.

Question 7

“Is the ship’s Automatic Identification System transmitting correct particulars?”

This question addresses the need for AIS to transmit accurate static, voyage and dynamic data about the ship and other safety-related information, including safety related messages.

The carriage requirements for AIS are provided in SOLAS regulation V/19.2.4. AIS is subject to an annual performance test in accordance with SOLAS regulation V/18.9.

To address the specific CIC question, the PSCO is expected to check that AIS is operational and is transmitting accurate static, voyage and dynamic data about the ship and can be used to transmit safety-related information, including safety related messages.

Preparations

Ships should ensure that:

- The type-approval certificate for the AIS is available on board;
- A copy of the most recent annual performance test report is available on board;
- The operation manual for the AIS is available;
- Records of maintenance of the AIS are available on board;
- The Master and officers carrying out navigational watchkeeping duties are familiar with the procedures for updating voyage data, navigational status and other safety-related information, including safety related messages; and
- The AIS is operational with all static¹³ and voyage¹⁴ data is correct and up-to-date. In addition to navigational status being correct, other dynamic¹⁵ data which should be available, even at a berth, should be correct. This may include: GNSS position, time (UTC), heading and SOG (zero).

Inspection

Ships should be prepared to show the PSCO:

- The type-approval certificate for the AIS;
- A copy of the most recent annual performance test report;
- Records of maintenance of the AIS are available on board;
- That the Master and officers carrying out navigational watchkeeping duties are familiar with the procedures for updating voyage data, navigational status and other safety-related information, including safety related messages;
- That the static data, voyage data and navigational status of the ship are correct and up-to-date; and
- That any available dynamic data which is available at the berth from ship sensors is correct.

Additional comments

Under the Harmonized System of Survey and Certification (HSSC), the annual performance check for AIS may be carried out:

- Up to 3 months before the due date for a passenger ship; and

¹³ MMSI, callsign and name, IMO number, length and beam, type of ship and location of electronic position fixing system (EPFS) antenna. Refer to paragraph 6.1.1 of Annex 3 to Resolution MSC.74(69).

¹⁴ Ship's draught, hazardous cargo (DG (dangerous goods) / HS (harmful substances) / MP (marine pollutants)), destination and ETA and Route plan (waypoints). Refer to paragraph 6.1.2 of Annex 3 to Resolution MSC.74(69).

¹⁵ Other than Navigational status, this is information available from the ships sensors. Refer to paragraph 6.1.3 of Annex 3 to Resolution MSC.74(69).

- Between 3 months before and 3 months after the due date for a cargo ship.

Masters should note that, whilst this specific CIC question is focused on transmission of correct data by AIS, it is anticipated that the scope of the inspection may also include general familiarity with the operation of AIS, including sending and receiving safety related messages.

If necessary, Masters should be prepared to:

- Advise the PSCO that the inspection of the AIS should not be a repeat of the annual performance test, which should be carried out by a qualified radio inspector authorized by the administration or a recognized organization;
- Remind the PSCO that a ship in port may not be able to display valid dynamic data for all required data fields. This is not an indication that the AIS is not transmitting correct data at sea; and
- Remind the PSCO that in accordance with resolution A.1106(29), manually entering the route plan (waypoints) as part of voyage data is optional and at the discretion of the Master. Master's discretion is covered by SOLAS regulation V/34-1.

References

Annex 3 of Resolution MSC.74(69) – Recommendation on Performance Standards for an Universal Shipborne Automatic Identification Systems (AIS);

Resolution A.1106(29) – Revised Guidelines for the Onboard Operational Use of Shipborne Automatic Identification Systems (AIS);

MSC.1/Circ.1252 – Guidelines on Annual Testing of the Automatic Identification System (AIS); and
ICS Bridge Procedures Guide, 5th Edition, Section 4.10.

Question 8

“Does the passage plan cover the whole voyage?”

This question addresses the need to develop a berth to berth plan for voyage prior to proceeding to sea.

The requirement for voyage planning and the identification of an appropriate route are provided in SOLAS regulation V/34 and STCW section A-VIII/2. Voyage planning should take into account the guidance and recommendations contained in Resolution A.893(21) on Guidelines for voyage planning.

To address the specific CIC question, the PSCO is expected to check that appraisal, planning, execution and monitoring of a voyage is conducted in accordance with the procedures in the safety management system (SMS) and taking into account the IMO Guidelines for voyage planning.

Preparations

Ships should ensure that:

- Voyage planning procedures are included in the SMS;
- The Master and officer(s) with responsibility for voyage planning are familiar with the voyage planning procedures included in the SMS and the IMO Guidelines for voyage planning;
- Detailed berth to berth voyage plans are developed using the procedures in the SMS, taking into account the IMO Guidelines for voyage planning. The plan should include correct calculations of safety depths, safety contours and bridge clearances, taking into account under-keel clearance requirements in the SMS and local navigation rules;
- Safe routes are identified and plotted on official, adequate¹⁶ and up-to-date ENCs or RNCs and/or paper charts, as necessary. This should include, but is not limited to:
 - A route which passes clear of charted hazards and complies with routing measures;
 - A cross-track distance appropriate to the phase of the voyage and size and manoeuvring characteristics of the ship;
 - Safety depths and safety contours, taking into account under-keel clearance requirements; and
 - Identification of hazardous areas in the vicinity of the route.
- Official, adequate and up-to-date nautical charts and publications¹⁷ covering at least the previous and next voyages are available on board;
- Upon completion of appraisal and planning, voyage plans are inspected and approved by the Master before the ship proceeds to sea. On ECDIS this should include using the route-scanning function and a visual inspection of the charts at scale 1:1;¹⁸
- Voyages are executed in accordance with the plan and any changes made thereto during the voyage;
- Voyage plans are available on the bridge at all times to allow immediate access and reference to the details of the plan; and
- Adequate navigation records are kept, in order to demonstrate that the passage plan was closely and continuously monitored, and to record changes to the plan made during the voyage.

¹⁶ Particular attention should be paid to ensuring that the available ENCs or RNCs and/or paper charts, as necessary, cover the whole berth to berth voyage and are of an appropriate scale (berthing, harbour, approach, coastal and general) for the voyage phase.

¹⁷ Adequate nautical publications is considered to mean that the nautical publications available cover all the areas of the planned voyage.

¹⁸ Scale 1:1 means the scale at which the chart was originally intended to be displayed.

Inspection

Ships should be prepared to show the PSCO:

- That the Master and officer(s) with responsibility for voyage planning are familiar with the voyage planning procedures in the SMS and the IMO Guidelines for voyage planning;
- The previous berth to berth voyage plan, including any changes, approved by the Master in accordance with the procedures in the SMS;
- The identified safe route of the previous voyage, plotted on appropriate scale ENC's or RNC's and/or paper charts, as necessary;
- If completed, the next berth to berth voyage plan approved by the Master in accordance with the procedures in the SMS;
- If completed, the identified safe route of the next voyage, plotted on appropriate scale ENC's or RNC's and/or paper charts, as necessary;
- That official, adequate and up-to-date nautical charts and publications covering at least the previous and next voyages should be available on board; and
- Navigation records from the previous voyage, including evidence that the passage plan was closely and continuously monitored, and records of changes to the plan made during the voyage.

Additional comments

Masters should be prepared to remind PSCO that it is not always possible to have a complete, berth to berth passage plan available on board. For example, where the berth at the port of call has not yet been allocated and therefore a route to the berth is not yet available. Where this is the case, the Master and officer(s) with responsibility for voyage planning should be prepared to explain the actions that will be taken to ensure that a complete berth to berth passage plan is available as soon as is reasonably practical.

Masters are reminded that nautical publications may be available in electronic form provided that this is approved by the flag State as an alternative to paper copies of nautical publications.

References

Resolution A.893(21) – Guidelines for voyage planning; and

ICS Bridge Procedures Guide, 5th Edition, Section 2

Question 9

“Does all crew know and respect the official working language as established and recorded in the ship's logbook?”

This question addresses the use of a ship's working language as established and recorded in the ship's logbook.

The requirements for a working language to be established and recorded in the ship's logbook on all ships is set out in SOLAS regulation V/14.3. The purpose is to ensure effective crew performance in safety matters. The Company, or the Master, as appropriate, can determine the appropriate working language for the ship. Each seafarers is required to understand and, where appropriate, give orders and instructions and to report back in that language.¹⁹

SOLAS regulation V/14.4 stipulates that English must be used on the bridge as the working language for bridge-to-bridge and bridge-to-shore safety communications, as well as for communications on board between the pilot and bridge watchkeeping personnel (reference is made to the IMO Standard Marine Communication Phrases (A.918(22), as amended)), unless those directly involved in the communication speak a common language other than English.

In accordance with section 6 of the ISM Code, ship's personnel are to be able to communicate effectively in the execution of their duties related to the SMS, receive relevant information on the SMS in a working language or languages understood by them.²⁰

To address the specific CIC question, the PSCO is expected to check that a working language has been established and recorded in the ship's log-book, and observe whether seafarers on board the ship are able to understand and, where appropriate, give orders and instructions and to report back in that working language.

If a “No” is recorded by the PSCO for this question, the PSCOs are asked to use their professional judgement regarding the seriousness of the deficiency to determine whether the ship may be considered for detention.

Preparations

Ships should ensure that:

- A working language for the ship has been established by the Company, or the Master, as appropriate and recorded in the ship's logbook;
- Safety, security and environmentally critical information, procedures and documentation are available or posted, as required, in the working language and English, as appropriate;
- All seafarers on board the ship are able to understand and, where appropriate, give orders, instructions and report back in the working language of the ship;
- English is used on the bridge as the working language for bridge-to-bridge and bridge-to-shore safety communications, as well as for communications on board between the pilot and bridge watchkeeping personnel, unless those directly involved in the communication speak a common language other than English; and
- In cases where the working language of the ship is not English, seafarers with duties that involve bridge-to-bridge and bridge-to-shore safety communication, or communicating with pilots (i.e. bridge watchkeeping personnel) are able to communicate in English.

Inspection

Ships should be prepared to show the PSCO the ship's logbook where the working language of the ship has been established and recorded.

¹⁹ SOLAS regulation V/14.3

²⁰ ISM Code section 6.6-6.7

Additional comments

Masters are advised to note that the specific CIC question uses the terms “know” and “respect”, which are not found in SOLAS regulation V/14. As such, Masters are advised to consider “know and respect” as meaning the ability to “understand and, where appropriate, give orders and instructions and to report back in that language”, in accordance with SOLAS regulation V/14.3.

References

Resolution A.918(22), as amended – IMO Standard Marine Communication Phrases; and ICS Bridge Procedures Guide, 5th Edition, Section 1.2.12, 5.5.1 and 5.5.2.

Question 10

“Is the crew familiar with the procedure of emergency operation of steering gear?”

This question addresses the conduct of emergency operation of steering gear, but may also address the requirements for testing and checking of steering gear.

Requirements for the conduct of steering gear tests and drills are set out in SOLAS regulation V/26. In addition, coastal State or rules for navigation related to routing measures, may require testing and drills prior to entering specific areas.

To address the specific CIC question, the PSCO is expected to check that steering gear testing and drills are conducted in accordance with the requirements of SOLAS and the procedures in the safety management system (SMS).

If a “No” is recorded by the PSCO for this question, the PSCOs are asked to use their professional judgement regarding the seriousness of the deficiency to determine whether the ship may be considered for detention.

Preparations

Ships should ensure that:

- The procedures in the SMS comply with the test, check and drill requirements in SOLAS regulation V/26;
- All ship’s officers concerned with the operation or maintenance of steering gear installed on board are familiar with its operation and the procedures in the SMS for changing between systems and conducting emergency steering procedure drills;
- Block diagrams showing the change-over procedures for remote steering gear control systems and steering gear power units are displayed on the bridge and in the steering compartment; and
- Records of checks and tests (no more than 12 hours prior to departure) and emergency steering procedure drills (at least once every 3 months) are complete and up-to-date.

Inspection

Ships should be prepared to show the PSCO:

- All ship’s officers concerned with the operation or maintenance of steering gear installed on board are familiar with its operation and the procedures in the SMS for changing between systems and conducting emergency steering procedure drills;
- Block diagrams showing the change-over procedures for remote steering gear control systems and steering gear power units are displayed on the bridge and in the steering compartment; and
- Records of checks and tests prior to departure and emergency steering procedure drills.

Additional comments

Masters should be prepared to conduct an emergency steering gear drill if requested by the PSCO.

Masters and chief engineers are recommended, to consider the benefit of providing a supplementary briefing to all appropriate officers and crew regarding the operation of the steering gear installed on board and the procedures for changing between systems.

References

ICS Bridge Procedures Guide, 5th Edition, Section 4.2; and
ICS Steering Gear Test Routines Checklist (2016).

Question 11

“Are the exhibition of navigation/signal lights in accordance with the requirements of COLREG 72?”

This question addresses the correct display of navigation lights, but may also consider the correct display of shapes. The reference to “signal lights” may also refer to the availability of a daylight signalling lamp.

The requirements for the display of navigation lights and shapes are set out in COLREG²¹ Part C – Lights and Shapes (regulations 20 to 31, as applicable). Annex I of COLREG provides requirements for the positioning and technical details of lights and shapes.

The emergency power supply arrangements for navigation lights, are set out in SOLAS regulation II-1/42.2.2 (passenger ships) and regulation II-1/43.2.3 (cargo ships).

Noting that COLREG Part C – light and Shapes does not refer to “signal lights”, the requirement for a daylight signalling lamp may also be covered by this question. The requirements for a daylight signalling lamp is set out in SOLAS regulation V/2.2.2.

To address the specific CIC question, the PSCO is expected to check that navigation lights and shapes are available and the lights are operational (including when operating on emergency power) and can be used to correctly determine the status, size, aspect and operation of the ship. The daylight signalling lamp may also be checked.

If a “No” is recorded by the PSCO for this question, the PSCOs are asked to use their professional judgement regarding the seriousness of the deficiency to determine whether the ship may be considered for detention.

Preparations

Ships should ensure that:

- All navigation lights are operational and have the correct arcs of visibility;
- Screens for navigation lights should be properly maintained to prevent deterioration affecting the arc of visibility of lights;
- All navigation lights are provided with a main and emergency power supply;
- The daylight signalling lamp is available, operational and provided with a source of electrical power which is not solely dependent upon the ship’s power supply;
- Where a battery is used to provide power to daylight signalling lamps, the battery should be charged and ready for use; and
- Appropriate day shapes are available on board so that it is at least possible to indicate that the ship is not under command, restricted in ability to manoeuvre, constrained by draught, aground and at anchor.

Inspection

Ships should be prepared to show the PSCO:

- That the navigation lights are operational using both main and emergency power supplies;
- That appropriate day shapes are available on board; and
- That the daylight signal lamp is available and operational with power supplied from the ship and/or a battery supply.

²¹ Convention on the International Regulations for Preventing Collisions at Sea, 1972 as amended.

Additional comments

Masters should be prepared to remind the PSCO that the check of navigation lights should not be a repeat of the examination of navigation lights conducted during annual or renewal surveys of the ship.

Masters should be prepared to demonstrate the availability and operation of all navigation lights and shapes, including those used to indicate special conditions or operations if appropriate.

References

Resolution MSC.253(83) - Adoption of the Performance Standards for Navigation Lights, Navigation Light Controllers and Associated Equipment; and

ICS Bridge Procedures Guide, 5th Edition, Section 4.7.

Question 12

“Is the ship detained as a result of this CIC?”

This question will be completed by the PSCO after considering the answers recorded against the rest of the questions on the questionnaire, particularly those marked with a “*”.

Details of any deficiencies should be indicated by the PSCO on the PSC report of inspection.

Additional comments

For the purposes of ensuring that the results of the CIC are accurately reported and collated by the Paris MoU and Tokyo MoU, Masters should ensure that a “No” (and not a “Yes”) is recorded against this question, unless the ship has been detained. Since a “Yes” is the positive record for all the other questions on the standard questionnaire, there is evidently a possibility for confusion or recording error on this question.

CONCENTRATED INSPECTION CAMPAIGN - Safety of navigation – CHECK LIST

N O	QUESTION	ACTION TO BE TAKEN	REFERENCE / GUIDANCE	Verified by Master
1	Is ship's navigation equipment in accordance with its applicable safety certificate (SEC, CSSC)?	<ul style="list-style-type: none"> • Ensure valid safety equipment certificate along with Form E is on board. • Familiarize with contents of FORM E • Verify the navigation equipment are actually fitted in accordance with navigational equipment stated in Form E. • Ensure all navigation equipment are in good working order. Please inform ship manager if any equipment is defective. 	<ul style="list-style-type: none"> ➤ Safety equipment certificate / FORM E ➤ SOLAS regulation V/19 	<input type="checkbox"/>
2	Does the ECDIS have the appropriate up-to-date electronic charts for the intended voyage and is there a suitable back-up arrangement?	<ul style="list-style-type: none"> • Ensure back up arrangements are as per SEC-Form E. • Ensure all ENCS are updated to latest NTM and appropriate ENC permits are available for intended voyage • Ensure only official ENC charts issued by authorized Hydrographic Office is used. • Ensure appropriate scale charts needed for all phases of the voyage are available. Particular attention should be paid to ensuring that the available ENCs cover the whole berth to berth voyage and are of an appropriate scale (berthing, harbour, approach, coastal and general) for the voyage phase. • Ensure records of all chart updates are kept in accordance with the procedures and are complete, up-to-date and available on board • Ensure all sections of NP 133 C is completed (ENC maintenance record) • Ensure the ECDIS and back-up system are capable of performing the route planning and route monitoring; • Ensure the power supply to both the ECDIS is provided with a separate, independent main and emergency power supply • Ensure ECDIS is updated to S-52 Presentation Library edition 4.0. • Ensure ECDIS is updated to latest software 3.11 for edition 4.0 • Ensure Records of ECDIS software maintenance are complete, up-to-date and available on board (section 8A/8B of NP 133C is completed in this regard) • Ensure Type approval certificate for FURUNO 3300 ECDIS is on board • Ensure valid contract for ENC/AIO/ADP/ENP etc is available on board (GNS) • Ensure ECDIS Chart 1 can be opened and symbols displayed as per IHO circular. 	<ul style="list-style-type: none"> ➤ Refer Checking the IHO S-52 Presentation Library edition 4.0 in ECDIS ➤ Memo section 11 – Voyager ➤ NAUTICAL MANUAL – 07B ECDIS – – SECTION 28 ➤ MSC.1/Circ. 1503 / Rev.1 - ECDIS – Guidance for good practice, Section A - Chart carriage requirement of SOLAS; ➤ ICS Bridge Procedures Guide, 5th Edition, Section 4.12, 4.13 and Annex 2. ➤ SOLAS regulation 	<input type="checkbox"/>

CONCENTRATED INSPECTION CAMPAIGN - Safety of navigation – CHECK LIST

		<ul style="list-style-type: none"> • Ensure all officers are familiar with the function in ECDIS to display the edition number of the IHO Presentation Library and software. • Ensure positions are plotted and monitored during voyage including LOP 	<ul style="list-style-type: none"> ➤ V/19.2.10 ➤ SOLAS regulation V/19.2.1.4 ➤ SOLAS regulation V/2.2 ➤ Australian Maritime Safety Authority Marine Notice 7/2017 on ECDIS ➤ Australian Maritime Safety Authority Marine Notice 6/2017 on nautical charts and publications 	
3	Is there evidence that all watch keeping officers comply with STCW requirements for ECDIS?	<ul style="list-style-type: none"> • Ensure the appropriate endorsement of ECDIS on the certificate of competency (COC) is correct, and whether there are any operation restriction on the COC. • Ensure all deck officers have IMO MODEL 1.27 Generic training as well as Type specific training certificate (FURUNO 3300) • PSC officers may conduct an assessment of the ability of officers to use ECDIS. 	<ul style="list-style-type: none"> ➤ PERSONNEL MANUAL – Chapter 009a – Certification matrix ➤ A copy of STCW.7/Circ.24/R ev.1 is available on board ➤ STCW/A –II/1 	<input type="checkbox"/>
4	Can watch keeping officers demonstrate familiarization with ECDIS?	<ul style="list-style-type: none"> • Ensure all deck officers have familiarized themselves with ECDIS using checklist Nav B4. Same shall be signed and filed for an evidence. • Ensure all officers are aware of ECDIS SETTINGS as per FORM 1.3.2 / 1.3.3 (SHALLOW CONTOUR , SAFETY DEPTH , SAFETY CONTOUR ETC) 	<ul style="list-style-type: none"> ➤ STCW/A –VIII/2 ➤ NAVB4 - ECDIS familiarization ➤ Form 1.3.2/1.3.3 	<input type="checkbox"/>

CONCENTRATED INSPECTION CAMPAIGN - Safety of navigation – CHECK LIST

		<ul style="list-style-type: none"> • Ensure all deck officers are familiar with the actions to be taken in case of malfunction of ECDIS or Sensor input failure (Position or Heading or Speed sensor input failure) - Contingency plan 38. ECDIS Malfunction / Failure • PSCO may play the voyage route to verify the interval and method of fixes (GPS, visual bearings, radar range and distance) is as per passage plan (LOP) • Ensure all officers are aware of the following: <ul style="list-style-type: none"> ➤ Capabilities and limitations of ECDIS: ✓ Understanding of Electronic Navigational Chart (ENC) data, data accuracy, presentation rules, display options and other chart data formats; ✓ Knowledge of the dangers of over-reliance on ECDIS; and ✓ Familiarity with the functions of ECDIS required by performance standards in force. ➤ Operation, interpretation, and analysis of information obtained from ECDIS: <ul style="list-style-type: none"> ✓ Use of functions that are integrated with other navigation systems in various installations, including proper functioning and adjustment to desired settings; ✓ Safe monitoring and adjustment of information, including own position, sea area display, mode and orientation, chart data displayed, route monitoring, user-created information layers, contacts (when interfaced with AIS and/or radar tracking) and radar overlay functions (when interfaced); ✓ Confirmation of vessel position by alternative means; ✓ Efficient use of settings to ensure conformance to operational procedures, including alarm parameters for anti-grounding and safety depth, proximity to contacts and special areas, completeness of chart data and chart update status, and backup arrangements; ✓ Adjustment of settings and values to suit the present conditions; and ✓ Situational awareness while using ECDIS including safe water and proximity of hazards, set and drift, chart data and scale selection, suitability of route (refer to guidance provided under question 8), contact detection and management, and integrity of sensors. <p>The PSCO will check amongst others;</p> <ul style="list-style-type: none"> • if the officer is capable of monitoring and adjusting information which includes own position, sea area display, mode and orientation, chart date 	<ul style="list-style-type: none"> ➤ Checklist is not to be used as tick list, ensure you are familiar before ticking the item. ➤ Familiarize with the contingency plan 38. ECDIS Malfunction / Failure ➤ Risk assessment for one ECDIS failure and both ECDIS failure is uploaded in bassnet by company ➤ MSC.1/Circ.1503/R ev.1 - ECDIS – Guidance for Good Practice, Section E – ECDIS Training ➤ STCW regulation I/14.1.5 	
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CONCENTRATED INSPECTION CAMPAIGN - Safety of navigation – CHECK LIST

		<p>displayed, route monitoring, user created information layers, contacts (when interfaced with AIS and /or radar tracking)and radar overlay functions (when interfaced);</p> <ul style="list-style-type: none"> • if the officer is able to set alarm parameters for anti-grounding, proximity to contacts and special areas; • the officer’s situational awareness while using ECDIS including safe water and proximity of hazards, set and drift, chart data and scale selection, suitability of route, contact detection and management, and integrity of sensors; • the familiarization of officer for ECDIS update procedure, and should check the officer’s route designing skill. 		
5	Can ship’s VDR/SVDR record data fully?	<ul style="list-style-type: none"> • Ensure all officers are aware of the various alarm codes for system fitted (tables of various codes to be posted in front of VDR console from the operation manual) • Check VDR for proper operation without any error code or active alarms on the display unit. • Ensure Officers are familiar with the data saving procedure and are aware of when to save the data. • Ensure copy of the annual certificate of compliance along with annual performance test report issued by the testing facility is available on board. • Ensure power of VDR is provided by ship's main source as well as emergency source of electrical power. • If there is alarm indicated on the panel, PSCO can request officers to verify if concerned equipment is well connected to the VDR and interpret any alarms which may be active • Please go through operation manual of VDR. • Ensure Back up procedures is displayed near VDR Console. • Ensure officers know for how many hours data can be stored • Ensure all officers are aware of the equipment recorded by VDR (radar, GPS, speed log, etc.). Table of connected equipment to be available near VDR console. • The data required to be recorded by the VDR is determined by the performance standard applicable at the time the equipment was installed on board. • Ensure type-approval certificate for the VDR is available on board • Ensure operations manual for the VDR is available on board • Ensure Records of maintenance of the VDR are available on board 	<ul style="list-style-type: none"> ➤ Refer Nautical Manual, chapter 7.0 Navigation Equipment, section 20. Voyage Data Recorder VDR ➤ Refer chapter 10.0. Navigation General, section 10. VDR Operating Procedure And Familiarisation ➤ Bridge Procedures Guide section 4.8 ➤ SOLAS regulation V/20 ➤ SOLAS regulation V/18.8 	<input type="checkbox"/>

CONCENTRATED INSPECTION CAMPAIGN - Safety of navigation – CHECK LIST

		<ul style="list-style-type: none"> • Check location of fixed, float free and long-term recording mediums, as appropriate; 		
6	Is second and/or third stage remote audible alarm of BNWAS recognized?	<ul style="list-style-type: none"> • Ensure Master and officers are familiar with the operation of the BNWAS in particular the emergency call, test and reset functions, audible and visual alarms and can recognize the second stage and third stage remote alarm in remote locations where alarm is relayed such as Masters cabin etc. • Ensure all other crew can recognize the third stage audible alarm of the BNWAS. • Ensure BNWAS including emergency call, remote alarms, are operational • Ensure BNWAS is operated at MANUAL MODE only (Auto mode shall not be used). • Ensure placard showing BNWAS to be operated in MANUAL MODE ONLY is posted near BNWAS panel • Ensure means of selecting the Operational Mode and the duration of the Dormant Period (Td) is accessible to the Master only; • During normal navigation, for the key control type, the key shall be kept by the Master; • For the password type, the password shall be known only to the Master. • Ensure OOW does not know the password • Master and OOW shall be familiar with the duration of dormant period. • Master and OOW shall be familiar with different ways/locations to initiate the reset function. • The CIC is focused on second and third stage alarms, please ensure well familiarity with these alarms. • OOW shall also be aware that the second stage and / or the third stage remote audible alarm shall be activated when the first stage alarm had not been reset. • The BNWAS should be powered from the ship's main power supply. The malfunction indication, and all elements of the Emergency Call facility, if incorporated, should be powered from a battery maintained supply. • BNWAS switching on/off shall be recorded in Bell book or Deck log book. • Ensure 2nd stage and 3rd stage alarms are tested and recorded in deck log book • BNWAS motion sensor is not permitted by flag state. If there are any motion sensors, same to be deactivated. • Ensure type-approval certificate for the BNWAS is available • Test BNWAS alarms during one of the drills to make crew aware. 	<ul style="list-style-type: none"> ➤ Refer Nautical Manual, chapter 7.0 Navigation Equipment, section 21. Bridge Navigational Watch Alarm Systems (BNWAS) ➤ The BNWAS is to be active from leaving the berth, until the vessel is tied up to the berth or buoy. This includes times when the vessel is underway, drifting or at anchor. ➤ BNWAS is to be tested monthly and ensure that it activates at the required points. Record the result in deck log book. ➤ ICS Bridge Procedures Guide, 5th Edition, Section 4.6. ➤ SOLAS regulation V/19.2.2.3. ➤ ICS Bridge Procedures Guide, 5th Edition, Section 4.6. 	<input type="checkbox"/>

CONCENTRATED INSPECTION CAMPAIGN - Safety of navigation – CHECK LIST

7	Is the ship's Automatic Identification System transmitting correct particulars?	<ul style="list-style-type: none"> • Ensure AIS is operational and is transmitting accurate static, voyage and dynamic data about the ship and can be used to transmit safety-related information, including safety related messages. • Ensure all deck officers are familiar with operation of AIS (updating voyage data, navigational status and other safety-related information, including safety related messages) • Ensure Status of information is periodically checked and updated where required. • Ensure AIS annual performance test certificate is available on board • Ensure type-approval certificate for the AIS is available • Ensure the operation manual for the AIS is available • Ensure Records of maintenance of the AIS are available on board • Ensure data when vessel is at berth is correct. This may include: GNSS position, time (UTC), heading and SOG (zero). <p>The PSCO will check amongst others:</p> <ul style="list-style-type: none"> • the correctness of the ship static and dynamic information • Static information include: MMSI, Call sign & Name, IMO number, Length and beam, Type of ship and Location of position-fixing antenna on the ship; • Dynamic information include: Ship's position with accuracy indication and integrity status, Time in UTC*, Course over ground, Speed over ground, Heading, Navigational status; • Voyage related information include: Ship's draught, Hazardous cargo (type) , Destination and ETA; • verify if navigation information is input and updated timely; and • the operator can display and consider incoming safety related messages and send safety related messages as required. 	<ul style="list-style-type: none"> ➤ Refer Nautical Manual, chapter 10.0. Navigation General, section 9. Automatic Identification Systems (AIS) ➤ SOLAS regulation V/19.2.4 ➤ SOLAS regulation V/18.9 ➤ ICS Bridge Procedures Guide, 5th Edition, Section 4.10. 	<input type="checkbox"/>
8	Does the passage plan cover the whole voyage?	<ul style="list-style-type: none"> • Ensure all officers are familiar with the voyage planning procedures included in the SMS and the IMO Guidelines for voyage planning • Ensure all items in company passage plan form are completed (including squat , UKC , TIDES , bridge clearance , safety depth , safety contours local requirements etc) • Ensure Official, adequate and up-to-date nautical charts and publications are on board • Ensure Passage plan is prepared berth to berth prior to proceeding to sea 	<ul style="list-style-type: none"> ➤ Company form 1.3.1 A ➤ STCW /A –VIII/2 ➤ SOLAS regulation V/34 	<input type="checkbox"/>

CONCENTRATED INSPECTION CAMPAIGN - Safety of navigation – CHECK LIST

		<p>and approved by Master. On ECDIS this should include using the route-scanning function and a visual inspection of the charts at scale 1:1;</p> <ul style="list-style-type: none"> • Ensure Passage plan provides details on environment sensitive areas • Ensure voyages are executed in accordance with the plan and any changes made thereto during the voyage; • Ensure previous passage plans and adequate navigation records are kept, in order to demonstrate that the passage plan was closely and continuously monitored, and to record changes to the plan made during the voyage. • Ensure Safe routes are identified and plotted on official, adequate and up-to-date ENCs. This should include, but is not limited to: <ul style="list-style-type: none"> ➤ A route which passes clear of charted hazards and complies with routeing measures; ➤ A cross-track distance appropriate to the phase of the voyage and size and manoeuvring characteristics of the ship; ➤ Safety depths and safety contours, taking into account under-keel clearance requirements; and ➤ Identification of hazardous areas in the vicinity of the route. <p>The PSCO shall verify if the following aspects were taken into consideration :</p> <ul style="list-style-type: none"> • the condition and state of the vessel, its stability, and its equipment; any operational limitations; its permissible draught at sea in fairways and in ports; its manoeuvring data, including any restrictions; • any special characteristics of the cargo (especially if hazardous), and its distribution, stowage and securing on board the vessel; • the provision of a competent and well-rested crew to undertake the voyage or passage; • requirements for up-to-date certificates and documents concerning the vessel, its equipment, crew, passengers or cargo. <p>The following points shall be inspected by the PSCO;</p> <ul style="list-style-type: none"> • verify if the voyage plan has been made and is approved by the captain and if the voyage plan has been prepared covering the entire voyage from berth to berth and effectively executed; • verify if there is evidence that the plan highlights areas where specific fixes or fix frequencies would be expected; • verify if the passage plan collect all relevant information concerning the intended voyage and the passage plan is planned with adequate and appropriate ENC and other publications; 	<ul style="list-style-type: none"> ➤ IMO Resolution A. 893(21) on Guidelines for voyage planning. ➤ Nautical manual section 09 ➤ ICS Bridge Procedures Guide, 5th Edition, Section 2 	
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CONCENTRATED INSPECTION CAMPAIGN - Safety of navigation – CHECK LIST

		<ul style="list-style-type: none"> • verify if the passage plan is clearly marked on ECDIS. For ships where an ECDIS is solely being used for navigation, route planning and route monitoring in ECDIS should be checked; • verify if any changes to the plan is made and clearly marked and recorded by officers engaged in navigational watch. 		
9	Does all crew know and respect the official working language as established and recorded in the ship's logbook?	<ul style="list-style-type: none"> • English is the WORKING LANGUAGE on board to ensure effective crew performance in safety matters. • All bridge-to-bridge and bridge-to-shore communications as well as for communications on board between the pilot and bridge watch keeping personnel shall be only in English as per SOLAS. • Ensure Safety, security and environmentally critical information, procedures and documentation are available / posted ONLY in English language. • If any information is posted in any other language, same shall be removed. • Ensure working language – ENGLISH is entered in page no 19 of MPA official log book <p>The PSCO shall verify;</p> <ul style="list-style-type: none"> • if a working language is established and recorded in the ship's log-book; (note that relevant section of Singapore MPA OLB has English recorded as the official language) • if each seafarer can understand and, where appropriate, give orders and instructions and to report back in working language; • if senior officers could conduct ship - shore communication in English (working language on bridge); and • check whether the training manual, the fire safety operational booklet, muster list, garbage management plan, garbage placard, security plan, noise notice board, etc. on board are written in English. The ship may be considered for detention if her crew were found unable to communicate effectively in working language. 	<ul style="list-style-type: none"> ➤ “Working language on board the vessel is English” is already printed on second page of company published log book ➤ Check, if it is not printed, please hand write on initial page of the deck log book. ➤ SOLAS regulation V/14.3 /14.4 ➤ ISM CODE SECTION 6 ➤ ICS Bridge Procedures Guide, 5th Edition, Section 1.2.12, 5.5.1 and 5.5.2 	<input type="checkbox"/>
10	Is the crew familiar with the procedure of emergency operation of steering gear?	<ul style="list-style-type: none"> • Ensure all officers and crew are familiar with Emergency steering procedures and which steering motor is fed from emergency switchboard. • Carry out one emergency steering drill this month and record the same • Masters should be prepared to conduct an emergency steering gear drill if requested by the PSCO. • Provide a supplementary briefing to all appropriate officers and crew 	<ul style="list-style-type: none"> ➤ Company form NAVB1 ➤ ER 06 form for engine department 	<input type="checkbox"/>

CONCENTRATED INSPECTION CAMPAIGN - Safety of navigation – CHECK LIST

		<p>regarding the operation of the steering gear installed on board and the procedures for changing between systems.</p> <ul style="list-style-type: none"> • Ensure Records of checks and tests (no more than 12 hours prior to departure) and emergency steering procedure drills (at least once every 3 months) are complete and up-to-date. • Ensure a fixed storage tank having sufficient capacity to recharge at least one power actuating system including the reservoir, where the main steering gear is required to be power-operated. The storage tank shall be permanently connected by piping in such a manner that the hydraulic systems can be readily recharged from a position within the steering gear compartment and shall be provided with a contents gauge. <p>The PSCO shall verify if steering gear is checked and tested by ship's crew before departure by means of checking relevant records.</p> <ul style="list-style-type: none"> • the full movement of the rudder according to the required capabilities of the steering gear; • a visual inspection for the steering gear and its connecting linkage; • the operation of the means of communication between the navigation bridge and steering gear compartment; • if there is evidence of the emergency steering drills which shall take place at least once every three months. The PSCO could also check if the drills include direct control within the steering gear compartment, the communications procedure with the navigation bridge and, where applicable the operation of alternative power supplies; • if the Master and duty officers are familiar with the procedures for changing from local steering gear control to remote steering gear control; • if there are simple operating instructions with a block diagram showing the change-over procedures for remote steering gear control systems and steering gear power units permanently displayed on the navigation bridge and in the steering compartment; • PSC can request crew to demonstrate each alarm of steering gear; and • PSC can request crew to demonstrate emergency steering operation as to check the degree of familiarity. 	<ul style="list-style-type: none"> ➤ SOLAS CHAPTER V REG 26 ➤ ICS Bridge Procedures Guide, 5th Edition, Section 4.2 ➤ SOLAS - CHAPTER II-1 Regulation 29 - Steering Gear 	
11	Are the exhibition of navigation/signal lights in accordance with the requirements of COLREG72?	<ul style="list-style-type: none"> • The ship should be equipped with navigation/ signal lights including masthead light, sidelights, stern light, towing light, all-round light, flashing light and manoeuvring lights, as required by the International Regulations for Preventing Collisions at Sea (COLREG 72) • Ensure navigation / signal lights are in normal working condition, and are 	<ul style="list-style-type: none"> ➤ COLREG PUBLICATION is available in REG4SHIPS (IMO / OTHER 	<input type="checkbox"/>

CONCENTRATED INSPECTION CAMPAIGN - Safety of navigation – CHECK LIST

		<p>supplied by both mains and emergency power.</p> <ul style="list-style-type: none"> • Ship staff should be prepared to demonstrate the availability and operation of all navigation lights and shapes, including those used to indicate special conditions or operations if appropriate. • Verify arcs of visibility for all lights are in accordance with COLREG requirements. • Ensure deck officers are aware of the procedure for testing navigation light failure alarm as the PSCO may witness this. • Masthead light, sidelights and a stern light should be duplicated or be fitted with duplicate lamps.(primary/secondary) • Ensure good maintenance of lights and fittings (no water ingress , no rust , clean glass , no insulation problems) • Ensure Screens for navigation lights are properly maintained to prevent deterioration affecting the arc of visibility of lights • Ensure ALDIS lamp is operational using an energy source of electrical power not solely dependent upon the ship's power supply (Battery) • Where a battery is used to provide power to daylight signalling lamps, the battery should be charged and ready for use • Ensure vessel has 3 spare Aldis lamp bulbs (mandatory) • Ensure appropriate day shapes are available on board so that it is possible to indicate that the ship is not under command, restricted in ability to manoeuvre, constrained by draught, aground and at anchor. • Ensure vessel has in good condition the following: <ul style="list-style-type: none"> ➤ 3 back balls ➤ One black diamond ➤ One black cylinder ➤ One bell on forecastle ➤ One gong with mallet 	<p>CONVENTIONS)</p> <ul style="list-style-type: none"> ➤ COLREG Part C – Lights and Shapes (regulations 20 to 31, as applicable) ➤ Annex I of COLREG provides requirements for the positioning and technical details of lights and shapes. ➤ The emergency power supply arrangements for navigation lights, are set out in SOLAS regulation II-1/43.2.3 (cargo ships). ➤ ICS Bridge Procedures Guide, 5th Edition, Section 4.7. ➤ The requirements for a daylight signalling lamp is set out in SOLAS regulation V/2.2.2. 	
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CONCENTRATED INSPECTION CAMPAIGN - Safety of navigation – CHECK LIST

12	Miscellaneous	<ul style="list-style-type: none"> • Ensure spare magnetic compass is on board and does not contain any bubble and is stored upside down to prevent wear on pivot bearing • Ensure all dimmers of navigation equipment are operational • Ensure main and emergency light source for magnetic compass binnacle is operational. • Ensure compass error is recorded every watch and deviation is in accordance with deviation curve posted on bridge • Ensure ADP/ ENP is updated to latest NTM on main and back up computer • Ensure bridge computer and laptop dock station are connected to EMERGENCY SOURCE of power • Ensure vessel has all publications as per form 5.4.0 and are of latest edition • Ensure weekly GMDSS test is carried with coast station and recorded. • Ensure bridge familiarization checklist NAVB3 is completed and filed for all deck officers • Ensure laminated copy of all bridge checklists are complied with and recorded in deck log book • Ensure navigation warnings / T&P notices / AIO are marked on ECDIS • Ensure Navtex / EGC is tuned to correct station to receive maritime safety information • Ensure all navigation equipment are in good working condition • Ensure all bridge log books are completed in timely manner • Ensure all items as per form 5.1.9 are in order (Monthly review of charts/publications) • Ensure all officers are familiar with navigation and communication equipment fed from emergency switchboard in the event of a blackout. 	<p>Form 5.4.0</p> <p>Form 5.1.9</p>	<input type="checkbox"/>
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	BRM CAMPAIGN PILOTAGE	AUG 2017
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The marine industry continues to experience an increasing number of incidents whilst vessels are navigating under pilotage. Typically these incidents include collision, contact with fixed objects and grounding. The purpose of this campaign is to encourage vessels to increase focus on this area of vessel operations in order to prevent occurrence of such incidents.

Following failures of communication between the pilot and the bridge team management have significantly contributed to such incidents:

- Ineffective master-pilot exchange: Though vessel information is provided to the Pilot by means of pilot card, pilotage plans are not fully reviewed and agreed by the master and/or not communicated to or understood by the bridge team.
- Failure to intervene: The bridge team failed to raise concerns or challenge the decision of the pilot.
- Failure of bridge team to anticipate developing dangers to navigation.
- Insufficient manning of the bridge resulting in reduced focus on pilot's activities.
- Failure to discuss and plan the mooring arrangement during the master-pilot exchange.
- Communication Failure:
 1. Pilot communicating with tugs and shore mooring teams in a local language not understood by the vessel's bridge team.
 2. Communication failure between the pilot and the bridge team caused through premature issuing of instructions by the pilot before the master/pilot exchange has taken place.

BRM – PILOT ON BOARD - GENERAL GUIDANCE

- Pilot is temporary member of bridge team
- **THE PILOT HAS THE CONDUCT OF THE SHIP.** An “Action, a Personal Service” being performed
- **THE MASTER HAS THE COMMAND OF THE SHIP.** A “Power of Authority”
- Despite the duties and obligations of a pilot, his presence on board does not relieve the officer of the watch from his duties and obligations for the safety of the ship.
- The master has right to advise and intervene when necessary.
- In some ports, pilot may request vessel to proceed beyond pilot boarding ground till channel entrance. Master should always request pilot to board vessel at pilot boarding area and vessel not to proceed beyond this area.
- Bridge manning levels as per company requirements shall be complied with. Master and one OOW shall always be on bridge while embarking / disembarking pilot in compliance with the SMS
- OOW on watch shall not leave the bridge to embark / disembark pilot as it could disrupt the continuity of watch keeping duties and may result in loss of situational awareness. Also it may be difficult for master to manage traffic, VHF calls, engine and rudder movements alone during this period.
- One officer will be on deck and one officer on bridge while embarking / disembarking pilot
- Master must advise the pilot about the vessels peculiarities of maneuvering & handling
- When under pilotage, discuss speed and squat with pilot and agree on a maximum safe speed for the transit. Please note Pilot is engaged only in the capacity of an

	BRM CAMPAIGN PILOTAGE	AUG 2017
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adviser. If the master believes that a slower speed should be used than that recommended by the pilot, then the master's view shall prevail

- A thorough master-pilot exchange should include : Providing passage plan and vessel's information to the pilot as required by the pilot card , Pilot's plan of maneuvering the vessel at different stages , Details of mooring/unmooring plan and tug arrangements
- The safe progress of the ship as planned should be monitored closely at all times.
- Verbal orders from the pilot also need to be checked to confirm that they have been carried out correctly
- The bridge team should not hesitate to seek clarification from pilots regarding any aspect of their plans or communication
- While reducing speed to make fast tugs, ensure vessel has sufficient sea room and does not run into danger due to effects of wind or current.
- Cohesive interaction between the pilot and the bridge team management, supported by clearly understood plans and communication protocol is key to the safe and effective navigation of the vessels.

REFERENCES:

- Nautical manual section 15
- Bridge procedures guide
- Form 1.5.2A - Pilot card / MASTER/PILOT INFORMATION EXCHANGE
- SHEQ FORM - NAVB8 – Pilotage

BRM CASE STUDY: PILOTAGE

A 42 000 dwt bulk carrier was anchored at the outer anchorage awaiting clearance to enter port for discharge operations. At 0500 hrs the vessel was given instructions to heave up anchor and proceed to the pilot boarding ground situated 4 miles north of the breakwater entrance. The vessel was soon underway and commenced her approach towards the pilot boarding position. Upon reaching the pilot position the master informed the pilot station that they were in position, but that there was no sign of the pilot boat. The pilot station informed the master that the pilot would board closer to the breakwater and that the vessel should continue her approach towards the breakwater. When the vessel was two miles from the breakwater entrance, the master noticed the pilot boat approaching towards the vessel and soon after the pilot boarded the vessel.

As soon as the pilot arrived on the bridge, the pilot confirmed with the master the vessel's current engine setting, course, speed and maximum draft. There was no exchange of any other information and soon after the pilot ordered the helmsman to steer a course that would position the ship in the middle of the breakwater entrance. The pilot advised the master that two tugs would be assisting with berthing and considering there was no other traffic to impede the vessels passage they should have a straight run to the berth. The pilot asked the Master to call the ship crew to standby for mooring stations, and the master acknowledged the pilot's communication.

	BRM CAMPAIGN PILOTAGE	AUG 2017
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Soon thereafter, the pilot was informed by the harbour control that there was an outbound ship waiting for our vessel to enter the inner port basin. In view of this, the pilot increased the vessel speed by ordering half ahead. The master and the officer on watch were discussing other matters on the bridge while the pilot was communicating with the harbour control and at the same time conning the vessel. The vessel speed was seven knots when passing the breakwater and although the master was aware of both the vessel's speed and the local speed limitations, he did not seek clarification or question the pilot's intentions.

Two tugs were standing by inside the breakwater; however, the tugs had difficulty in keeping up with the vessel's speed as she made her way past the breakwater and into the inner port basin. As the vessel approached the terminal, communications were ongoing between the pilot and tugs in a local language (not English) which was not understood by the master. The aft tug eventually made fast when the vessel was quite close to the berth. The forward tug started pulling on the line before the line could be made fast on the vessel. The entire line then paid out into the water rendering the tug line of no assistance to the vessel. In the process of all this confusion and heated communication between the pilot and the tugs, the vessel speed was not reduced sufficiently and resulted in the vessel bow colliding with a mooring dolphin. Extensive damage was caused both to the vessel and to the mooring dolphin.

Suggested keywords for discussion

- Berth to Berth passage plan – including point of no return
- Level of alertness when pilot is on board
- Seeking clarification if in doubt
- Necessity for Bridge Team Management
- Master – Pilot exchange of information
- Critical thinking – What if? when and what
- When do you question or intervene?
- Roles & Responsibilities when pilot on board
- Communication and language challenges
- Monitoring of pilotage – Situational awareness

Action required by navigating officers:

Master to discuss attached case study with all navigating officers and provide response to the below.

1. What are the various contributing factors that led to this incident?



**BRM CAMPAIGN
PILOTAGE**

AUG 2017

2. What are the various distractions that may arise to the Bridge team during Pilotage and how they can be effectively dealt without compromising the safety of Navigation?

3. What actions the Bridge Team will be taking to prevent Occurrence of similar incident on board your vessels?

Vessel name:

Master: