

CIRCULAR LETTER

9 August 2017

Subject: Paris and Tokyo MoU - Concentrated Inspection Campaign on "Safety of Navigation"

The **Paris MoU** and **Tokyo MoU** on Port State Control (PSC) 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" using similar questionnaires. The purpose of the CIC is to check compliance with the SOLAS requirements, the overall status of the vessel's navigation safety and the competency of crew involved in navigation operations. The CIC shall assure that:

- Navigation equipment conforms with valid legal certificates, and is accompanied with proper records;
- Related equipment receives proper maintenance and function properly;
- The Master and Officers in duty are familiar with operation of bridge equipment, especially ECDIS.

ECDIS had contributed much to maintaining navigation safety and reducing navigational workload of seafarers since its application. It not only provides conveniences for mariner, such as all route planning, route monitoring, successive plotting of the vessel's position, etc., but also it provides appropriate alarms or indications with respect to the information displayed. Therefore, the CIC will focus on the installation and operation of ECDIS, with emphasis also on voyage arrangements and navigation equipment, including AIS, VDR, BNWAS, signal lamps, etc.

The CIC will be combined with a regular PSC inspection and it is not intended to detract from normal coverage of PSC inspections. The PSCOs will use their professional judgment and knowledge of SOLAS requirements in conducting the inspection and eliciting responses to the questions included in the CIC's questionnaire. A ship will only be subject to one inspection under this CIC during the period of the Campaign. If deficiencies are found, actions by the PSC may vary from recording a deficiency and instructing the Master to rectify it within a certain period of time to detaining the ship.

This guidance has been prepared to assist in the preparation for the CIC inspection and includes the "standard questionnaire" for use by PSCOs with 12 questions. Answers under the "No" column may lead to a deficiency; questions marked with an asterisk (*) are considered to be particularly important and may lead to a detention. **Explanations and guidance regarding each one of the questions are provided in Annex I.**

Relevant IMO instruments

- SOLAS 1974, as amended;
- STCW 1978, as amended; and
- COLREG 1972, as amended.

Relevant IMO performance standards

- Resolution A.861(20), as amended-Performance Standard for Shipborne VDR;
- Annex 3 of Res. MSC.74(69)-Recommendation on Performance Standards for an Universal Shipborne AIS;
- Res. MSC.128(75)-Performance Standards for a Bridge Navigational Watch Alarm System (BNWAS);
- Res. MSC.163(78), as amended-Performance Standards for Shipborne Simplified Voyage Data Recorders (S-VDRs);
- Res. MSC.253(83)-Adoption of the Performance Standards for Navigation Lights, Navigation Light Controllers and Associated Equipment; and
- Res. MSC.333(90)-Adoption of Revised Performance Standards for Shipborne 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 AIS;
- MSC.1/Circ.1222-Guidelines on Annual Testing of VDR and S-VDR;
- MSC.1/Circ.1252-Guidelines on Annual Testing of the AIS;
- MSC.1/Circ.1474-Guidance on the 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, PSC authorities, recognized organizations and other relevant parties on the requirements of the STCW 1978, as amended.

Relevant IHO Guidance

- www.iho.int > ENCs, 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.



Questionnaire for the Concentrated Inspection Campaign on Safety of Navigation (SOLAS CH.V)

Inspection			
Ship name:		Flag	
IMO Number:		Classification Society:	
Date of inspection		Inspection Port:	

No	Item	YES	NO	N/A
Q1 *	Is ship's navigation equipment in accordance with its applicable safety certificate (SEC,PSSC, CSSC)? (SOLAS 74/CH.I/R.12)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q2*	Does the ECDIS have the appropriate up-to-date electronic charts for the intended voyage and is there a suitable back-up arrangement? (SOLAS 74/CH.V/R.19.2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q3	Is there evidence that all watchkeeping officers comply with STCW requirements for ECDIS? (STCW A-II/1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q4 *	Can watchkeeping officers demonstrate familiarization with ECDIS? (STCW A-VIII/2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q5 *	Can ship's VDR/SVDR record data fully? (SOLAS 74/CH.V/R.18)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q6 *	Is second and/or third stage remote audible alarm of BNWAS recognized? (SOLAS 74/CH.V/R.19.2.2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q7	Is the ship's Automatic Identification System transmitting correct particulars? (SOLAS 74/CH.V/R.19.2.4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q8	Does the passage plan cover the whole voyage? (SOLAS 74/CH.V/R.34, STCW/A-VIII/2)	<input type="checkbox"/>	<input type="checkbox"/>	
Q9 *	Does all crew know and respect the official working language as established and recorded in the ship's logbook? (SOLAS 74/CH.V/R.14)	<input type="checkbox"/>	<input type="checkbox"/>	
Q10 *	Is the crew familiar with the procedure of emergency operation of steering gear? (SOLAS 74/CH.II-1/R.29, SOLAS 74/CH.V/R.26)	<input type="checkbox"/>	<input type="checkbox"/>	
Q11 *	Are the exhibition of navigation/signal lights in accordance with the requirements of COLREG72? (COLREG 72/CIII, SOLAS 74/CH.II-1/R.42.2/R.43.2)	<input type="checkbox"/>	<input type="checkbox"/>	
Q12	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 judgment 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.

ANNEX I

QUESTIONNAIRE GUIDANCE

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

Convention Reference: SOLAS 74/CH.I/R.12

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

CIC relevant requirements for navigational systems and equipment are set out in SOLAS reg. V/19 on Carriage Requirements for Navigational Systems and Equipment and V/20 on VDRs. Statutory survey and certificate requirements are set out in SOLAS chapter I.

The PSCO is expected 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 judgment 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 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 on board the ship.

Inspection

Ships should be prepared to show to the PSCO:

- A valid Form C and Form E, or Form P, as applicable; and
- The presence and location of 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 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.

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

Convention Reference: SOLAS 74/CH.V/R.19.2

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

Ships fitted with ECDIS and ships using ECDIS to meet the chart carriage requirement of SOLAS should carry onboard 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), if the vessel's Flag State allows their use for navigational purposes, and/or the relevant paper charts. ENCs, RNCs and paper charts available in the Bridge should be official (as defined in SOLAS reg. V/2.2), adequate¹ and up-to-date (as set out in SOLAS reg. V/27).

Ships using ECDIS for navigation are required to have adequate, independent back-up arrangements² 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.

PSCO will check whether the ECDIS on board is endorsed in the S/E supplement or not. If endorsed, the following inspections should be carried out:

1. Whether the type approval certificate of ECDIS is on board or not.
2. If the chart information in ECDIS is the latest ENC/SENC standard edition. The information should be appropriate for the intended voyage and up-to-date.

¹ 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.

² Section 14 of Performance standards for ECDIS (res. A.817(19), as amended) or Section 14 and Appendix 6 of Revised performance standards for ECDIS (MSC.232.(82), as amended).

3. Some ECDIS equipment may operate in the Raster Chart Display System (RCDS) mode, and the chart information should be RNC/SRNC. When in RCDS mode, the updated Appropriate Portfolio of Paper charts (APC) should be equipped on board for readily use.
4. The Record of Equipment indicates the approved back-up arrangements. Updated paper chart folio for the entire planned voyage is an acceptable back-up arrangement.
5. If the ECDIS and back-up system are capable of performing the route planning and route monitoring.
6. If the ECDIS is driven by main power and emergency power. If an electronic device is used as back up arrangement, the back-up power supply should be separated from the ECDIS, which means the power should be supplied by separated switchboard (the main power may be supplied by two systems but should be distributed by different switchboards).

If a "No" is recorded by the PSCO for this question, the PSCOs are asked to use their professional judgment 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 (if the vessel's Flag State allows their use for navigational purposes) 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 4.0³;
- 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 (if the vessel's Flag State allows their use) 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
- The independent back-up arrangement used on board conforms to the details included in "Details of Navigational Systems and Equipment" in the Record of Equipment for the Cargo Ship Safety Certificate (Form C) and in the Record of Equipment for the Cargo Ship Safety Equipment Certificate (Form E), or in the Record of Equipment for the Passenger Ship Safety Certificate (Form P), as applicable.

³ The previous edition of the IHO ECDIS Presentation Library Edition 3.4 expires on 31 August 2017.

Inspection

Ships should be prepared to show to 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. Records for IHO Presentation Library tests to be available onboard for presentation to the PSCO. These tests should be carried out after every ECDIS software update and at appropriate intervals, if this is specified in Company's procedures for ECDIS;
- The ECDIS and the back-up ECDIS, if fitted, has all the official and up-to-date ENC and RNCs (if the vessel's Flag State allows their use) which are adequate and necessary for all phases of the next voyage;
- The latest ENC and RNC (if the vessel's Flag State allows) updates and Notices to Mariners available onboard, including T&Ps and Navigational Warnings manual update, where needed;
- Records of ENC, RNC (if the vessel's Flag State allows) and paper chart updates, as applicable;
- If the back-up arrangement is a folio of paper charts, that the paper charts are the latest editions of the charts and that they have been corrected to the latest Notice to Mariners available onboard; and
- If the back-up arrangement is a second ECDIS, that 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, that the IHO ECDIS Presentation and Performance Checks 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 reg. 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 and the vessel's Flag State allows its use for navigational purposes. 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.ihp.int > ENCs, ECDIS & S-100; and
ICS Bridge Procedures Guide, 5th Edition, Section 4.12, 4.13 and Annex 2.

3. Is there evidence that all watchkeeping Officers comply with STCW requirements for ECDIS?

Convention Reference: STCW/A-II/1

This question addresses the training and certification of Officers performing navigational watchkeeping functions (Masters including) onboard ships fitted with ECDIS. PSCO will check the qualification of Officers onboard in the ways specified as follows:

1. Check of the endorsement of ECIDS operation restriction in the Certificate of Competency.
2. Check of the requirements on standard of competence of using ECDIS for Officers in charge of a navigational watch on ships required to carry ECDIS. Every candidate for certification shall provide evidence of having achieved the required standard of competence in accordance with the methods for demonstrating competence and the criteria for evaluating competence listed in STCW/AII/1 (general training and familiarization training evidence).
3. Training and assessment in the use of ECDIS is not required for those who serve exclusively on ships not fitted with ECDIS, but these limitations shall be reflected in the endorsements issued to the seafarer concerned.

The 2010 Manila Amendments to STCW 1978, 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 equipment⁴.

Certificates of Competency (CoC) issued in accordance with the 2010 Manila Amendments to STCW 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. Any limitations related to ECDIS will be reflected on a certificate, indicating that its holder has not completed training in the use of ECDIS. In cases where ECDIS training is not included in the CoC, the Officer (Masters including) must be able to provide documentation for Generic ECDIS Training based on the IMO Model ECDIS course (1.27).

⁴ STCW Ch. II (Master and Deck Department), specifically reg. 11/1 & section A-1111, reg. 11/2 & section A-11/2, reg. 11/3 & section A-11/3.

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. There is no requirement for the approved training in the use of ECDIS to be type-specific or to be able to provide any evidence of training that is specific to the installed equipment⁵ (ECDIS type-specific training is not required unless it consists a Flag State or Port State requirement). All Deck Officers (Masters including) must be able to provide documentation for appropriate familiarization with ECDIS model fitted onboard, using Company's relative ECDIS familiarization checklist.

To address the specific CIC question, the PSCO would be expected to check that each Officer carrying out navigational watchkeeping duties (Masters including) holds a valid CoC issued in accordance with the STCW, 1978, as amended, without any limitations concerning ECDIS (or a Generic ECDIS Training Certificate based on the IMO Model ECDIS course (1.27)) and has completed Company's relative ECDIS familiarization checklist. The holding of an ECDIS type-specific training Certificate can be checked by the PSCO if it consists a Flag State or a Port State requirement.

Preparations

Ships should ensure that:

- Each Officer carrying out navigational watchkeeping duties (Masters including) holds a valid CoC issued in accordance with the STCW 1978, as amended, without any limitations concerning ECDIS or, where ECDIS training is not included in the CoC, a Generic ECDIS Training Certificate based on the IMO Model ECDIS course (1.27) and has completed the Company's relative ECDIS familiarization checklist; and
- A copy of STCW.7/Circ.24/Rev.1 is available onboard 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 to the PSCO that each Officer carrying out navigational watchkeeping duties holds a valid CoC issued in accordance with the STCW 1978, as amended, without any limitations concerning ECDIS or, where ECDIS training is not included in the CoC, a Generic ECDIS Training Certificate based on the IMO Model ECDIS course (1.27) and has completed Company's relative ECDIS familiarization checklist.

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 1978, as amended, if ECDIS training is included in the CoCs. Training related to ECDIS forms part of the CoC issued to Officers carrying out navigational watchkeeping duties. Masters should be:

⁵ STCW.7/Circ.24/Rev.1, paragraphs 11 to 14 and IMO STCW.7/Circ.24/ 6 February 2017 "No requirement exists for the approved training on ECDIS equipment to be type-specific. The knowledge, understanding and proficiency required to be demonstrated is generalized to ensure seafarers have the necessary skills for basic operation of all types of equipment".

- Aware that there has been some misinterpretation of the requirements of the STCW 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 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 1978, as amended, or IMO Procedures for PSC 2011 (A.1052(27)), for PSCOs to require to see so-called ECDIS training course completion certificates, if ECDIS training is included in the CoCs. Any expansion of the inspection to review such documentation for this question is not aligned with the requirements of the STCW 1978, as amended, and related IMO guidance (STCW.7/Circ.24/Rev.1).

References

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

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

IMO STCW.7/Circ.24 - STCW 1978, as amended.

4. Can watchkeeping Officers demonstrate familiarization with ECDIS? Convention Reference: STCW/A-VIII/2

This question addresses the familiarity of Officers carrying out navigational watchkeeping duties (Masters including) with ECDIS. During the inspection, PSCO will enquire/check relevant records or ask for onsite operation, to make sure that the watchkeeping personnel understand the functions and operation of installations/equipment and are familiar with handling them.

1. PSCO will check if the Officer is capable of monitoring and adjusting information which includes own position, sea area display, mode and orientation, chart date display, route monitoring, user-created information layers, contacts (when interfaced with AIS and /or radar tracking) and radar overlay functions (when interfaced).
2. PSCO will check if the Officer is able to set alarm parameters for anti-grounding, proximity to contacts and special areas.
3. PSCO will check 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.
4. PSCO will check the familiarization of Officer regarding ECDIS update procedure.
5. PSCO will check the Officer's route designing skill.

Companies should ensure that seafarers are familiarized with the installed equipment relevant to their routine or emergency duties as set out in STCW reg. 1/14.1.5. This includes familiarization with ECDIS for those Officers carrying out navigational watchkeeping duties (Masters including) in accordance with STCW section A-VIII/2.

The 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 given⁶.

To address this question, the PSCO may request to sight records or documentation related to familiarization relevant to the ECDIS installed on board and may conduct an assessment of the ability of Officers 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 judgment regarding the seriousness of the deficiency to determine whether the ship may be considered for detention.

Preparations

Ships should ensure that:

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

Inspection

Ships should be prepared to show to the PSCO:

- Records or documentation of familiarization of Officers carrying out navigational watchkeeping duties (Masters including) with ECDIS installed on board; and
- If requested, a demonstration of familiarity with ECDIS by Officers that perform navigational duties (Masters including). The following must be considered as a basis for the checks that the Officers must be able to address:
 - Officers must be able to demonstrate operational competency in the use of ECDIS (competency should include ability for setting critical alarms, such as safety depth, safety contour, look ahead, operation in DR mode etc.).
 - The Bridge team is aware of the procedure to update ENC's with permits and notice to mariners (NTM) and verification of same.
 - The Officers can demonstrate how to check if T&P corrections have been applied.
 - The Master and all Deck Officers are aware of the suggested assignment of navigational purposes to scale ranges for ENC's and the appropriate range ENC charts are being used for the intended voyage.

⁶ ISM Code, section 6.3

- There is awareness about the actions required in case of identified ECDIS input failure(s) (apart from formal training, relevant drills to be carried out).
- Officers are able to demonstrate awareness of correct Geodetic Datum Setting (WGS-84) (ECDIS & GPS).
- Safety depth, safety contour, shallow contour and deep contour are correctly set for the intended voyage.
- The anti-grounding cone and XTE/XTD are correctly set for the intended voyage.
- The Navigational warnings relevant to the intended voyage have been plotted.
- In case that NAVTEX is connected to the ECDIS, the NAVTEX warnings are being managed correctly.
- The Position Fixing, including cross-referencing, is carried out as per the methods and frequency specified in the Company's SMS.
- Officers are aware that ECDIS must not be used for collision avoidance purposes.
- ECDIS checks for pre-departure, arrival, pilotage and confined waters carried out for conformance and alignment with input from sensors (e.g. GPS/GNSS, heading, speed) and its presentation on the ECDIS display.
- Awareness of radar overlay function (RIO) (when interfaced).
- Safe monitoring and adjustment of information, including own position, sea area display, mode and orientation, chart data display, 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.
- Adjustment of settings and values to suit the present conditions.
- 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.

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 1978, as amended, only if there are clear grounds for the PSCO 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
 - 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 IMO 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 security⁷.
- The abovementioned occurrences that would permit an "assessment" are unlikely to have been met when a ship undergoes a CIC inspection. Therefore any "assessment"

⁷ STCW regulation 1/4.1.3

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 in question 3 of the CIC), STCW section A-114 stipulates that an "assessment" can involve requiring a seafarer to demonstrate the related competency at the place of duty⁸.

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 1978, as amended, for Officers in charge of a navigational watch on ships of 500 GT or more⁹.

References

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

5. Can ship's VDR/SVDR record data fully?

Convention Reference: SOLAS 74/CH.V/R.18

This question addresses the ability of the VDR or S-VDR to record all data inputs required by SOLAS.

1. PSCO will check if the VDR/SVDR is equipped in accordance with SOLAS requirements.
2. PSCO will verify if the VDR/SVDR annual performance test is carried out. For cargo ships the VDR/SVDR annual performance test may be carried out within 3 months before or after the anniversary date of Safety Equipment Certificate, in order to be harmonized with requirements regarding surveys. For passenger ships the performance test may be carried out up to 3 months before the due date for survey.
3. PSCO will check if the power of the VDR/SVDR is provided by the ship's main source as well as by an emergency source of electrical power.
4. PSCO will check the number of alarms shown on the VDR/SVDR panel and what do the alarms stand for (which could be learned from the operation manual). If there is an alarm indicated on the panel, PSCO can request Officers to verify if concerned equipment is well connected to the VDR/SVDR.
5. PSCO will verify if the VDR/SVDR is able to record data fully according to the date of keel laid and the date the VDR/SVDR is installed to ship. PSCO can also refer to its annual performance test report.

The carriage requirements for VDR and S-VDR are set out in SOLAS reg. V/20. VDR and S-VDR are subject to an annual performance test as set out in SOLAS reg. 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 onboard¹⁰.

⁸ STCW section A-1/4.3-4

⁹ STCW table A-11/1

¹⁰ VDR installed on board on or after 1 July 2014 should comply with Res. MSC.333(90) - Adoption of Revised Performance Standards for VDR. VDR installed on board before 1 July 2014 should comply with Res. A.861(20) - Performance Standard for VDR as amended by MSC.214(81). S-VDR installed on board cargo ships shall comply with MSC.163(78) Performance Standards for S-VDRs.

To address this 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 judgment 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 onboard;
- The certificate of compliance for the VDR or S-VDR issued following the most recent annual performance test is available onboard;
- The operations manual for the VDR or S-VDR is available onboard;
- Instructions for saving and downloading data are displayed next to the VDR control panel;
- Records of maintenance of the VDR or S-VDR are available onboard; 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 to 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:
 - 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 onboard.

References

Res. MSC.333(90)- Adoption of Revised Performance Standards for Shipborne VDR;
Res. A.861(20), as amended- Performance Standard for Shipborne VDR;
Res. MSC.163(78), as amended- Performance Standards for Shipborne S-VDRs;
IMO MSC.1/Circ.1222- Guidelines on Annual Testing of VDR and S-VDR; and
ICS Bridge Procedures Guide, 5th Edition, Section 4.8.

6. Is second and/or third stage remote audible alarm of BNWAS recognized?

Convention Reference: SOLAS 74/CH.V/R.19.2.2

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. PSCO will check that:

1. If security protection for BNWAS is properly kept. The means of selecting the Operational Mode and the duration of the Dormant Period (Td) should be given safety protection so that access to these controls is for the Master only:
 - During normal navigating, for the key control type, the key shall be kept by Master,
 - For the password type, if the password is known by Master only.
2. Considering different types of BNWAS, Master and OOW shall be familiar with different ways to initiate the reset function.
3. PSCO may check the operation of BNWAS by OOW to confirm the system is in normal working condition. Once the BNWAS is activated, the 2nd stage and/or the 3rd stage remote audible alarm shall be activated when the first stage alarm had not been reset.
4. 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.

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

To address this 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 2nd stage remote audible alarm and other crew can recognize the 3rd 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 judgment regarding the seriousness of the deficiency to determine whether the ship may be considered for detention.

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 (the

reference of the handing over password/key for the configuration of the BNWAS in the Master's handing over report can be considered as evidence);

- The Master and Officers carrying out navigational watchkeeping duties are familiar with the operation of the BNWAS, in particular the BNWAS operational mode (when BNWAS is activated, the operational mode should be MANUAL ON¹¹), the emergency call, test and reset functions;
- The Master and Officers carrying out navigational watch and crew are familiar with the 2nd and 3rd 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 to 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 (the reference of the handing over password/key for the configuration of the BNWAS in the Master's handing over report can be considered as evidence);
- That the Master and Officers carrying out navigational watchkeeping duties are familiar with the 2nd stage audible alarm of the BNWAS installed on board; and
- That other crew are familiar with the 3rd stage audible alarm of the installed BNWAS.

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

IMO Res. MSC.128(75) - Performance Standards for a BNWAS;
IMO MSC.1/Circ.1474- Guidance on the BNWAS AUTO Function; and
ICS Bridge Procedures Guide, 5th Edition, Section 4.6.

7. Is the ship's Automatic Identification System transmitting correct particulars?

Convention Reference: SOLAS 74/CH.V/R.19.2.4

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 messages.

¹¹ IMO MSC.1/Circ.1474- Guidance on the Bridge Navigational Watch Alarm System (BNWAS) AUTO Function

1. PSCO will verify if AIS is subjected to an annual test in accordance with the survey requirements of the ship's applicable safety certificate, and conducted within 3 months before or after each anniversary date of the Cargo Ship Safety Equipment Certificate.
2. PSCO will verify the correctness of the ship static and dynamic information, and the substantial compliance with the practical condition of the ship.
 - Static information includes: MMSI, Call sign & Name, IMO number, length and beam, type of ship and location of position-fixing antenna on the ship.
 - Dynamic information includes: Ship's position with accurate indication and integrity status, time in UTC, course over ground, speed over ground, heading and navigational status.
 - Voyage related information includes: Ship's draught, hazardous cargo (type), destination and ETA.
3. PSCO will verify if navigation information is input and timely updated.
4. PSCO will check whether the operator can display and consider incoming safety-related messages and send safety-related messages, as required.

The carriage requirements for AIS are provided in SOLAS reg. V/19.2.4. AIS is subject to an annual performance test in accordance with SOLAS reg. V/18.9. AIS checks are included in IMO Res. A.1106(29)-Revised Guidelines for the Onboard Operational Use of Shipborne AIS. The checks must be carried out as follows:

- The OOW should manually input the following data at the start of the voyage and whenever changes occur:
 - ship's draught;
 - hazardous cargo;
 - departure, destination and ETA;
 - route plan (way points);
 - the correct navigational status; and
 - short safety-related text messages.
- The OOW should also periodically check the following dynamic information:
 - positions given according to WGS 84;
 - speed over ground; and
 - sensor information.
- To ensure that own ship's static information is correct and up-to-date, the OOW should check the data whenever there is a reason for it. As a minimum, this should be done once per voyage or once per month, whichever is shorter. AIS static information are the following:
 - MMSI;
 - Call sign and name;
 - IMO Number;
 - Length and beam;
 - Type of ship; and
 - Location of electronic position fixing system (EPFS) antenna.

The inclusion of the above checks in the Company's navigational checklists will be helpful in order to ensure that these checks will be properly carried out and additionally, the documented checks can work as evidence to the Officer for AIS proper use.

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 watch are familiar with the procedures for updating voyage data, navigational status and other safety-related information, including safety messages; and
- The AIS is operational with all static and voyage data correct and up-to-date. In addition to navigational status being correct, other dynamic 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 to 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 available on board;
- That the Master and Officers carrying out navigational watch are familiar with the procedures for updating voyage data, navigational status and other safety-related information, including safety 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
- Between 3 months before and 3 months after the due date for a cargo ship.

Masters should note that, whilst this 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. For this reason, Masters and Officers carrying out navigational watch shall always have in mind that AIS never should be used as anti-collision means. 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 res. 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 reg. V/34-1.

References

Annex 3 of IMO Res. MSC.74(69)-Recommendation on Performance Standards for an Universal Shipborne AIS;

IMO Res. A.1106(29) - Revised Guidelines for the Onboard Operational Use of AIS;

IMO MSC.1/Circ.1252- Guidelines on Annual Testing of the AIS; and

ICS Bridge Procedures Guide, 5th Edition, Section 4.10.

8. Does the passage plan cover the whole voyage?

Convention Reference: SOLAS 74/CH.V/R.34, STCW/A-VIII/2

This question addresses the need to develop a berth to berth plan for voyage prior to proceeding to sea. PSCO will verify if the following issues were taken into consideration:

- 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 maneuvering 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.

The following will be inspected:

- PSCO will verify if the voyage plan has been made and is approved by the Master and if the voyage plan has been prepared covering the entire voyage from berth to berth and effectively executed.
- PSCO will verify if there is evidence that the plan highlights areas where specific fixes or fix frequencies would be expected.
- PSCO will verify if the passage plan collects all relevant information concerning the intended voyage and the passage plan is planned with adequate and appropriate charts and other publications.
- PSCO will verify if the passage plan is clearly marked on charts. For ships where an ECDIS is solely being used for navigation, route planning and route monitoring in ECDIS will be checked.

- PSCO will verify if any changes to the plan are made and clearly marked and recorded by Officers engaged in navigational watch.

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

To address this 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 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 SMS procedures, taking into account the IMO Guidelines for voyage planning. The plan should include correct calculations of safety depths, safety contours, under keel clearance and air draft (where needed), taking into account the SMS requirements and local navigation rules;
- Safe routes are identified and plotted on official, adequate¹² and up-to-date ENCs or RNCs (if the vessel's Flag State Administration allows their use for navigational purposes) 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;
 - Identification of hazardous areas in the vicinity of the route;
 - Anticipation of adverse weather conditions; and
 - The consideration of the marine environmental protection measures that apply, and the avoidance, as far as possible, of actions and activities which could cause damage to the environment.
- Official, adequate and up-to-date nautical charts and publications¹³ covering at least the previous and next voyages are available on board;

¹² Particular attention should be paid to ensuring that the available ENCs or RNCs (if the vessel's Flag State allows their use for navigational purposes) 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.

¹³ The term "adequate nautical publications" means that the nautical publications available cover all the areas of the planned voyage.

- 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 the use of the route-scanning function and a visual inspection of the charts at scale 1:1¹⁴;
- Voyages are executed in accordance with the plan and any changes made during the voyage (in such cases, the relevant amendments to the initial plan should be attached to it);
- 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.

Inspection

Ships should be prepared to show to 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 or RNCs (if the vessel's Flag State allows) 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 or RNCs (if the vessel's Flag State allows) 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 are 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, when the berth at the port of call has not yet been allocated and therefore a route to the berth is not yet available. In this 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 format provided that this is approved by the Flag State as an alternative to paper copies.

References

IMO Resolution A.893(21)-Guidelines for voyage planning; and
ICS Bridge Procedures Guide, 5th Edition, Section 2.

¹⁴ Scale 1:1 means the scale at which the chart was originally intended to be displayed.

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

Convention Reference: SOLAS 74/CH.V/R.14

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

1. PSCO will verify if a working language is established and recorded in the ship's log-book.
2. PSCO will verify if each seafarer can understand and, where appropriate, give orders and instructions and report back in working language.
3. PSCO should verify if Senior Officers could conduct ship - shore communication in English (working language on Bridge).
4. PSCO may 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 the ship's working language.

The requirement for a working language is set out in SOLAS reg. V/14.3. The purpose is to ensure effective crew performance in safety matters. Each seafarer is required to understand and, where appropriate, give orders and instructions and to report back in that language¹⁵.

SOLAS reg. 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 between the Pilot and Bridge Team members (reference is made to 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 during the execution of their duties related to SMS, and receive relevant information on SMS in a working language or languages understood by them¹⁶.

To address this 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 judgment regarding the seriousness of the deficiency to determine whether the ship may be considered for detention.

¹⁵ SOLAS regulation V/14.3.

¹⁶ ISM Code section 6.6-6.7.

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 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 between the Pilot and Bridge Team members, 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 Team members) are able to communicate in English.

Inspection

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

Additional comments

Masters are advised to note that this question uses the terms "know" and "respect", which are not found in SOLAS reg. 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 reg. V/14.3.

References

IMO Res. 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.

10. Is the crew familiar with the procedure of emergency operation of steering gear? Convention Reference: SOLAS 74/CH.II-1/R.29, SOLAS 74/CH.V/R.26

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

1. PSCO should verify if steering gear is checked and tested by ship's crew before departure by means of checking relevant records.
 - a. the full movement of rudder according to the required capabilities of the steering gear;
 - b. a visual inspection of the steering gear and its connecting linkage; and
 - c. the operation of the means of communication between the Bridge and the steering gear compartment.

2. PSCO will check if there is evidence of the emergency steering drills which shall take place at least once every 3 months. PSCO will also check if the drills include direct control from the steering gear compartment, the communications procedure with the Bridge and, where applicable, the operation of alternative power supplies.
3. PSCO will check if the Master and the duty Officers are familiar with the procedures for changing from local steering gear control to remote steering gear control.
4. PSCO should verify 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 Bridge and in the steering compartment.
5. PSCO can request from the crew to demonstrate each alarm of steering gear.
6. PSCO can request from the crew to demonstrate emergency steering operation in order to check the degree of familiarity.

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

To address this question, the PSCO is expected to check that steering gear testing and drills are conducted in accordance with SOLAS requirements and the SMS procedures.

If a "No" is recorded by the PSCO for this question, the PSCOs are asked to use their professional judgment 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 reg. V/26;
- All ship's Officers concerned with the operation or maintenance of steering gear are familiar with its operation and the SMS procedures for changing between systems and conducting emergency steering procedure drills. These drills shall include direct control from the steering gear compartment, the communications procedure with the navigation bridge and, where applicable, the operation of alternative power supplies;
- 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 to the PSCO:

- All ship's Officers involved with the operation or maintenance of steering gear are familiar with its operation and the SMS procedures 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 should provide a supplementary briefing to all appropriate Officers and crew regarding the operation of the steering gear 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).

11. Are the exhibition of navigation/signal lights in accordance with the requirements of COLREG72?

Convention Reference: COLREG 72/CIII, SOLAS 74/CH.II-1/R.42.2/R.43.2

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 signaling lamp. PSCO will check:

1. If the navigational/signal lights are in normal working condition.
2. If the navigational/signal lights are supplied by main power and emergency power.

The requirements for the display of navigation lights and shapes are set out in COLREG 21 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 reg. 11-1/42.2.2 (passenger ships) and reg. 11-1/43.2.3 (cargo ships).

Noting that although COLREG Part C - lights and shapes does not refer to "signal lights", the requirement for a daylight signaling lamp may also be covered by this question. The requirements for a daylight signaling lamp are set out in SOLAS regulation V/2.2.2.

To address this specific 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 signaling lamp may also be checked.

If a "No" is recorded by the PSCO for this question, the PSCOs are asked to use their professional judgment 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 signaling 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 signaling lamps, the battery should be charged and ready for use; and
- Appropriate shapes are available onboard 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 to the PSCO:

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

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

IMO Res. 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.

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 an asterisk "*".

If "No" is selected, for questions marked with an asterisk "*", PSCO will use his/her professional judgment considering the seriousness of the deficiency as to whether the ship may be considered for detention. The detail of any deficiencies and deficiency code in CIC questionnaire, if any, should be appropriately entered on the PSC Report Form B.

During the inspection, PSCO will further assess whether the ship and/or crew is able to navigate safely throughout its forthcoming voyage. If the result of any assessments is negative, taking into account all deficiencies found, the ship should be considered for detention irrespective of the time the ship will stay in port.

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.