

Circular 2017-09:Safety of Navigation CIC – Best Practice Guide

Overview

A joint Concentrated Inspection Campaign regarding Safety of Navigation announced by Paris and Tokyo MoU. Black sea, Indian and Vina del Mar MoU will also going to take part to this CIC in accordance with relevant press releases. This inspection campaign will be held for a period of three months, commencing from **1 September 2017** and ending **30 November 2017**.

Aim of CIC

The aim and scope of the CIC is to verify the compliance with Safety of navigation including ECDIS (Electronic Chart Display Information Systems). The CIC aims at checking the conformity of safety regulations for ships, the overall status of the vessel's navigation safety, and the competency of crew involved in navigation operations.

Regulations on navigation equipment have undergone frequent changes according to a series of amendments from IMO on SOLAS Chapter V (safety of navigation). Of all deficiencies, those concerning navigation equipment contribute a major proportion.

Questionnaire

The questionnaire that issued and adopted for the CIC is a twelve items questionnaire checking of Safety of Navigation implementation. For information on the items that the PSC inspectors will be especially looking into, please refer to **Annex 1** with the questionnaire that they will be referring to report the results of the inspection.

Actions required

Ship managers should be prepared for the questionnaire and address all items as appropriate. A safety equipment check (regarding safety of navigation items) should be performed and procedures included in SMS (or other relevant publications) to be reviewed for conformance.

Officers assigned to OOW duties should be trained and familiar as appropriate and relevant STCW certificates and or supportive documents to be updated and available on board for PSCO inspection. A self-inspection / assessment on board is recommended and training should be provided to all crew members prior entering the port of inspection during the CIC period.

SQEMARINE, can provide guidance and further information on CIC requirements and implementation issues. Please refer to **Annex 2** for item by item best practice guide. Additionally an ECDIS Management Manual is recommended to be on board ECDIS navigating vessels in order to provide guidance and implementation solutions to crew members.

Further information

SQEMARINE : [Safety4Sea Article](#)

SQEMARINE :[SQE ECDIS Management Manual](#)

Annex 1: Safety of Navigation CIC Questionnaire

Annex 2: Best Practice Guide

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Annex 1: Safety of Navigation CIC Questionnaire

No.	Item	Yes	No	N/A
Q.1*	Is ship's navigation equipment in accordance with its applicable safety certificate (SEC, PSSC, CSSC)? (S74/CI/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-II/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.

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Annex 2: Best Practice Guide

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

Navigational equipment should be as included in safety equipment certificate. Special care should be made on how to include ECDIS in the certificate. IMO MSC. 1/Circ. 1496 (21 November 2014) provides guidance on item as follows

A. Nautical Paper Charts Only

Item	Actual provision
2.1 Nautical charts/Electronic chart display and information system (ECDIS)	"Provided"
2.2 Back-up arrangements for ECDIS	" - "

B. Two ECDIS (No Nautical Paper Charts)

Item	Actual provision
2.1 Nautical charts /Electronic chart display and information system (ECDIS)	"Provided"
2.2 Back-up arrangements for ECDIS	"ECDIS"

C. ECDIS and Nautical Paper Charts

Item	Actual provision
2.1 Nautical charts/Electronic chart display and information system (ECDIS)	"Both provided"
2.2 Back-up arrangements for ECDIS	"ECDIS" or "Nautical Charts" *

* Delete as appropriate

OR

Item	Actual provision
2.1 Nautical charts /Electronic chart display and information system (ECDIS)	"Provided"
2.2 Back-up arrangements for ECDIS	"Nautical Charts"

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

Approved and updated ENCs should be available on board to support the ECDIS equipment. For back up arrangement see the previous question. The backup arrangement may be Paper charts (up to dated and ready for use) or another ECDIS fully supported with updated charts. The supportive nautical publications may also be in electronic format noting that they also have to be updated as the relevant paper publications.

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

All officers assigned with duties as Officer in charge of navigational watch should be certified with ECDIS generic certificate based on IMO model course 1.27 for Operational use of ECDIS. As certification with the model course is the base, every OOW should be trained to use (plot, correct, follow and understand the alarms) the specific equipment that is install on board.

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4. Can watchkeeping officers demonstrate familiarization with ECDIS?

Familiarization onboard is a managing Company's item (ISM Clause 6.3). All officers should be familiarized with installed equipment. The certificate issued by manufacturer for the officer regarding the specific type of ECDIS is one standalone evidence which does not ensure the Officer is full familiar with the system. Company should form additional safety barriers (through on board training, familiarization and evaluation) in order each officer to be able to demonstrate the knowledge he/she has on the capabilities of the system. PSC officers will ask some or all of them to demonstrate familiarization on screen.

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

Vessel's VDR/SVDR should be connected with the appropriate equipment and systems in order to provide recorded data as required. A ship required under International rules to carry a functioning voyage data recorder, and under routine PSC requirements a ship may be detained if the VDR is not functioning properly. Master should be able to demonstrate the appropriate functioning and the ability to recall data as appropriate. Special entry should be made to SMS regarding the use, recording and recovery of VDR/SVDR data. In accordance with SOLAS Chapter V Regulation 18.8; the VDR should be subject to an annual performance checks. The person carrying out the annual checks should be approved by the ship's Flag Administration and show evidence that he has been authorized by the VDR manufacturer to service the particular make and model of equipment.

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

BNWAS as system monitors the awareness of the Officer of the Watch (OOW) and automatically alerts another qualified OOW or the Master if for any reason the OOW becomes incapable of performing the OOW's duties. It should be tested in intervals as per flag administration requirements and be set to produce audible alarm to the bridge and to Master's compartment (and/or other compartments) when no movement is spotted in the wheelhouse.

Each BNWAS system has different operational modes as follows:

Automatic	Automatically brought into operation whenever the ship's heading or track control system is activate and inhibited when this system is not activated. <u>The Automatic mode is not suitable for use on a ship conforming with regulation SOLAS V/19.2.2.3 which requires the BNWAS to be in operation whenever the ship is underway at sea.</u>
Manual ON	In operation constantly
Manual OFF	Must not be in operation under any circumstances

The BNWAS can only be activated and deactivated by use of a key. Therefore only authorized personnel (the Master) can decide if the bridge watch alarm is active or not.

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

Automatic Identification System assists vessels to create the activity image of the transiting area with other vessels as they identified by their AIS. The transmitted data is very important as indicate the identity of vessel, the basic voyage plan (port of departure / port of arrival) and the MMSI which can be used for Digital Selective Calling. It is very important the data

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included in AIS to be updated and correct. The Officer of the watch is responsible to check the data and carry out the self diagnostic test every noon.

8. Does the passage plan cover the whole voyage?

Passage plan should be a berth to berth plan, scheduled on ALL available means of navigation (ECDIS, paper) including backup arrangements. OOW should be able to follow the plan and revert to the backup arrangement if required. The stages of passage planning as per IMO requirements are:

- a. Appraisal
- b. Planning (includes Route Creation and Route Checking)
- c. Execution
- d. Monitoring

In case of ECDIS passage planning special care should be made to safety parameters such as Shallow Contour, Safety Depth, Safety Contour, Deep Contour which indicate different navigable or Not areas.

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

The common working language as established in SMS should be followed on board. All entries in official logs, checklists, reporting means should be in this language. Special care should be made on the internal language used by crew when third parties are on board. For Example the most common gap in communication is when the pilot is on board and the crew members are communicating with their native language instead of the one established in SMS. This practice has led to undesirable incidents or accidents.

10. Is the crew familiar with the procedure of emergency operation of steering gear?

All crew members assigned with duties in charge for navigational watch and/or assisting navigational watch should be familiar with emergency steering arrangements. The ratings assigned with duties as helmsman, should be able to demonstrate the functions for hand steering, auto pilot steering and revert procedure and the alternate steering methods (button or joystick). Additionally, the emergency steering equipment from emergency steering gear room should be tested during drills and records to be available for inspection. Communication between emergency gear compartment and bridge should be checked prior voyage and steering gear drill to be performed frequently and prior arrival (in US waters 12 hours prior arrival).

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

The day signals/shapes should be available to be used as required. Lights should be checked prior sailing and records to be available to demonstrate the test. The 24dc arrangement to be available in order the lights to be operational during blackout. Spare batteries or additional backup arrangements should be available and checked ready for use in case of malfunction. OOWs should be familiar with the use of lights (and the backup arrangements) and should know when and how to use day signals/shapes.