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TO: SHIPOWNERS, MANAGERS, MASTERS AND RECOGNISED
ORGANISATIONS OF SINGAPORE SHIPS

**JOINT CONCENTRATED INSPECTION CAMPAIGN ON SAFETY OF NAVIGATION
(SOLAS CHAPTER V) BY TOKYO AND PARIS MOU ON PORT STATE CONTROL**

Member Authorities of the Tokyo and Paris Memorandum of Understanding (MoU) will be conducting a joint Concentration Inspection Campaign (CIC) on Safety of Navigation from 1 September to 30 November 2017.

2 During this period, PSC Officers will pay close attention to the operation and maintenance of navigation equipment on ships, training and familiarisation of watchkeeping officers on the use of ECDIS in particular, conduct of passage planning, emergency steering gear operation and the display of navigation lights and signals. PSC Officers will also verify that the ECDIS is updated to the latest IHO and IEC standards. This CIC will be carried out in conjunction with normal PSC inspections.

3 A ship may be detained under PSC on the following grounds:

- a. The navigational equipment on the ship do not correspond to the record of equipment of the Cargo Ship Safety Equipment Certificate.
- b. ECDIS is not in normal working condition.
- c. Electronic nautical charts (ENC) are not up-to-date for the intended voyage and suitable back-up arrangement is not provided.
- d. The master and/or watchkeeping officers are not familiar with the operation of ECDIS.
- e. VDR or BNWAS is not in normal working condition.
- f. The crew does not know or respect the official working language as established and recorded in the ship's logbook.
- g. The crew is not familiar with the procedure for the emergency operation of steering gear.
- h. Display of navigation lights or signals is not in accordance with COLREG requirements.

4 MPA is also paying close attention to navigational safety items during flag State control inspection of Singapore ships.

5 To assist your company and crews in preparing for this CIC, we attached herewith the PSC CIC questionnaire with guidance notes (see Annex). Please share this information with your Masters and crews, and ensure that they are well prepared for this CIC to prevent unnecessary delays or detentions in port.

6 For enquiries, please contact Capt Farhad Iftekher or the Flag State Control Department at Tel: +65 6375 6251/6253 or email: shipping@mpa.gov.sg.

CAPT FARHAD IFTEKHIR
SENIOR MARINE SURVEYOR (FLAG STATE CONTROL)
for DIRECTOR OF MARINE
MARITIME AND PORT AUTHORITY OF SINGAPORE

**CONCENTRATED INSPECTION CAMPAIGN ON SAFETY OF NAVIGATION
(SOLAS CHAPTER V)**

No.	Item	Yes	No	N/A
Q1*	<p>Is ship's navigation equipment in accordance with its applicable safety certificate (SEC, PSSC, and CSSC)?</p> <p><i>(Note: SOLAS regulation I/12</i></p> <p><i>Navigation equipment fitted on the vessel shall correspond to the details in the Record of Equipment (Form E) of the Cargo Ship Safety Equipment Certificate).</i></p>			
Q2*	<p>Does the ECDIS have the appropriate up-to-date electronic charts for the intended voyage and is there a suitable back-up arrangement?</p> <p><i>(Note: SOLAS regulation V/19.2, Resolution A.817(19), Resolution MSC.64(67), Resolution MSC.86(70), Resolution MSC.232(82), MSC.1/Circ.1503</i></p> <p><i>a. Chart information in ECDIS shall be of the latest available ENC/SENC edition, and kept up-to-date for the intended voyage using both electronic chart updates (e.g. ENC updates) and the latest available notices to mariners.</i></p> <p><i>b. Additionally, ECDIS software should be kept up to date such that it is capable of displaying up-to-date electronic charts correctly according to the latest version of IHO's chart content and display standards.</i></p> <p><i>c. The IHO have introduced revised ECDIS software standards. They include version 4.0 of S-52 which specifies chart content on ECDIS as a new presentation library, S-63 – an updated protection standard – and S-64, which is a new test data set. ECDIS also need to meet new International Electro Technical Commission (IEC) standards, i.e. IEC 61174 - Testing standard for type approval of ECDIS, and IEC 62288 - Standard for presentation of navigation information.</i></p>			

	<p>d. <i>The IMO has extended the transition period for ships using ECDIS to be provided with software updates to the new IHO S-52 presentation library standard by one year to 31 August 2017.</i></p> <p>e. <i>MPA Shipping Circular No. 25 of 2015 advises companies and masters of ships fitted with ECDIS to take into account of the IMO guidelines in MSC.1/Circ.1503, and contact the ECDIS manufacturer as soon as possible to update existing ECDIS software for their vessels before the deadline. Companies facing genuine difficulties meeting this deadline should notify the flag Administration and apply for dispensation for their vessels.</i></p> <p>f. <i>Large scale ENC or paper charts shall be used for preparation of passage plan for the intended voyage.</i></p> <p>g. <i>Back-up arrangement for ECDIS, either paper charts or duplicate ECDIS, shall be properly maintained and in good order at all times. The master and watchkeeping officers must be conversant in using them.</i></p> <p>h. <i>If paper charts are used as a back-up arrangement, the latest/up-to-date paper charts shall be provided/used for the entire planned voyage.</i></p>			
<p>Q3</p>	<p>Is there evidence that all watchkeeping officers comply with STCW requirements for ECDIS?</p> <p><i>(Note: STCW Code Part A-II/1, STCW.7/Circ.24/Rev.1 Certificate of Competency (COC) of watchkeeping officers should be checked for any restriction on ECDIS operation.</i></p> <p>a. <i>The STCW Code contains requirements for approved generic training on ECDIS for masters and watchkeeping officers.</i></p> <p>b. <i>In cases where approved training has not been completed, a limitation shall be included on the certificate and endorsements issued to the seafarer. Where such a limitation is not specified, the certificate and endorsements are evidence of having successfully completed the required approved training and that the standard of competence has been achieved.</i></p> <p>c. <i>Training and assessment in the use of ECDIS is not required for those who serve exclusively on ships not fitted with ECDIS, however, these limitations shall be reflected in the</i></p>			

	<p><i>endorsements issued to the seafarer concerned</i></p> <p><i>d. 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.</i></p> <p><i>e. In accordance with STCW regulation I/14, companies are responsible for ensuring that seafarers employed on their ships are familiarized with the installed equipment, including ECDIS.</i></p> <p><i>f. The IMO have agreed that seafarers required to have training in the use of ECDIS:</i></p> <ul style="list-style-type: none"> <i>• should not be required to provide documentation of training in ECDIS that is specific to the installed equipment; and</i> <i>• are required to be familiarized with the ECDIS equipment installed on board.)</i> 			
<p>Q4*</p>	<p>Can watchkeeping officers demonstrate familiarisation with ECDIS?</p> <p><i>(Note: STCW Code Part A-VIII/2, SOLAS regulation IX/3</i></p> <p><i>Watchkeeping officers should be able to:</i></p> <p><i>a. demonstrate their familiarity with the function and operation of ECDIS;</i></p> <p><i>b. monitor and adjust ECDIS information, including:</i></p> <ul style="list-style-type: none"> <i>• own position;</i> <i>• sea area display;</i> <i>• mode and orientation;</i> <i>• chart date displayed</i> <i>• route monitoring;</i> <i>• user-created information layers;</i> <i>• contacts (when interfaced with AIS and/or radar tracking);</i> <i>• radar overlay functions (when interfaced);</i> <p><i>c. set alarm parameters for anti-grounding, proximity to contacts and special area;</i></p>			

	<p>d. <i>have situational awareness while using ECDIS, including:</i></p> <ul style="list-style-type: none"> • <i>safe water and proximity of hazards;</i> • <i>set and drift;</i> • <i>chart data and scale selection;</i> • <i>suitability of route;</i> • <i>contact detection and management;</i> • <i>integrity of sensors;</i> <p>e. <i>be familiar with ECDIS updating procedure; and</i></p> <p>f. <i>demonstrate good route designing skill.)</i></p>			
Q5*	<p>Can ship's VDR/SVDR record data fully?</p> <p><i>(Note: SOLAS regulation V/18, Resolution MSC.163(78), Resolution A.861(20), Resolution MSC.214(81), Resolution MSC.333(90)</i></p> <p>a. <i>VDR/SVDR shall be type-approved in accordance with applicable SOLAS requirements.</i></p> <p>b. <i>VDR performance test shall be carried out annually, and may be harmonised with the Safety Equipment survey window.</i></p> <p>c. <i>VDR/SVDR is provided with both main and emergency source of electrical power.</i></p> <p>d. <i>Watchkeeping officers should be aware of any alarm on the VDR/SVDR panel and what they stand for.</i></p> <p>e. <i>VDR/SVDR shall be able to record data fully according to the date of keel laid and the date the VDR/SVDR is installed on the ship.</i></p>			
Q6*	<p>Is second and/or third stage remote audible alarm of BNWAS recognized?</p> <p><i>(Note: SOLAS regulation V/19.2.2, Resolution MSC.128(75), MSC.1/Circ.1474</i></p> <p>a. <i>Means of activating the reset function of the BNWAS should only be available in positions on the bridge giving proper look out and preferably adjacent to visual indication.</i></p> <p>b. <i>Security protection (key control or password type) for BNWAS shall be properly kept. The means of selecting the operational mode and</i></p>			

	<p><i>the duration of the Dormant Period (Td) should be give safety protection so that access to these controls is for the master only.</i></p> <p><i>c. Master and watchkeeping officers shall be familiar with the different ways to initiate the reset function.</i></p> <p><i>d. Operation of the BNWAS should be checked to confirm the system is in normal working condition. Once the BNWAS goes into operation, the second stage and /or the third stage remote audible alarm shall be activated when the first stage alarm has not been reset.</i></p> <p><i>e. BNWAS should be powered from the ship's main power supply. Malfunction indication and all elements of the Emergency Call facility, if incorporated, should be powered from a battery maintained supply.</i></p>			
Q7	<p>Is the ship's Automatic Identification System transmitting correct particulars?</p> <p><i>(Note: SOLAS regulation V/19.2.4, Resolution MSC.74(69) Annex 3, MSC.1/Circ.1251</i></p> <p><i>a. AIS shall be subject to annual test. Annual testing may be align with the window period of the appropriate survey under the Harmonized System of Survey and Certification (HSSC).</i></p> <p><i>b. Watchkeeping officers should check that the AIS is transmitting correct ship static and dynamic information, and voyage related information:</i></p> <ul style="list-style-type: none"> <i>• Static information include: MMSI; IMO number; ship's call sign and name; ship's length and beam; ship type and location of position-fixing antenna on the ship.</i> <i>• Dynamic information include: Ship's position with accuracy indication and integrity status; time in UTC; course over ground; speed over ground; heading (gyro); navigational status.</i> <i>• Voyage related information include: Ship's draught; hazardous cargo type; destination and ETA.</i> 			
Q8	Does the passage plan cover the whole voyage?			

	<p>(Note: SOLAS regulation V/34, STCW Code Part A-VIII/2, Resolution A.893(21), MSC/Circ.891</p> <p>a. <i>The master shall ensure the intended voyage has been planned using appropriate nautical charts and publications, and taking into account the guidelines for voyage planning in Resolution A.893 (21).</i></p> <p>b. <i>Following items should be considered in the voyage plan:</i></p> <ul style="list-style-type: none"> • <i>the condition and state of the vessel, its stability and equipment; any operational limitation; permissible draft at sea in fairways and in ports; Its maneuvering data, including any restrictions;</i> • <i>any special characteristics of the cargo (especially if hazardous), and its distribution, stowage and securing on board the vessel;</i> • <i>the provision of a competent and well-rested crew to undertake the voyage or passage;</i> • <i>the requirements for up-to-date certificates and documents concerning the vessel, its equipment, crew, passengers or cargo.</i> <p>c. <i>The voyage plan shall be approved by the master before the voyage.</i></p> <p>d. <i>The voyage plan shall be prepared covering the entire voyage from berth to berth, using adequate and appropriate, and large scale charts and other nautical publications. The plan highlights areas where specific fixes or fix frequencies would be expected</i></p> <p>e. <i>The passage plan is clearly marked on the charts for the intended voyage only. For ships where ECDIS is solely being used for navigation, route planning and route monitoring should carried out by ECDIS.</i></p> <p>f. <i>Any changes to the voyage plan is made and clearly marked and recorded by watchkeeping officers.</i></p>			
<p>Q9*</p>	<p>Does all crew know and respect the official working language as established and recorded in the ship's logbook?</p>			

	<p>(Note: SOLAS regulation V/14</p> <ul style="list-style-type: none"> a. <i>A working language shall be established and recorded in the ship's log-book.</i> b. <i>Each seafarer shall be required to understand and, where appropriate, give orders and instructions and to report back in the working language.</i> c. <i>English shall 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.</i> d. <i>SOLAS training manual, fire safety operational booklet, muster list, garbage management plan, garbage placard, security plan, noise notice board, etc. on board should be written in the ship's working language).</i> 			
<p>Q10*</p>	<p>Is the crew familiar with the procedure of emergency operation of steering gear?</p> <p>(Note: SOLAS regulation V/26</p> <ul style="list-style-type: none"> a. <i>Steering gear shall be checked and tested by ship's crew within 12 hours before departure. Records of test shall be kept on board.</i> b. <i>Emergency steering drills shall take place at least once every three months to practise emergency steering procedures. These drills shall include direct control within the steering gear compartment, communications procedure with the navigation bridge and, where applicable the operation of alternative power supplies. Records of drills shall be kept on board.</i> c. <i>Master and duty officers should be able to demonstrate their familiarity with emergency steering operation, steering gear alarms, procedure for changing from local to remote steering gear control.</i> d. <i>Simple operating instructions with a block diagram showing the change-over procedures for remote steering gear control systems and steering gear power units shall be permanently displayed on the navigation bridge and in the steering compartment.)</i> 			

<p>Q11*</p>	<p>Are the exhibition of navigation/signal lights in accordance with the requirements of COLREG 72?</p> <p><i>(Note: COLREG 72 Section III, Resolution MSC.253(83)</i></p> <p><i>a. A vessel shall exhibit navigation/signal lights (masthead light, stern light, sidelights, towing light, all-round white light, manoeuvring light, etc.) as required by COLREG 72.</i></p> <p><i>b. Navigation/signal lights shall be regularly inspected, tested, and maintained in normal working condition.</i></p> <p><i>c. Navigation/signal lights shall be of correct specification as defined in COLREG rule 21¹. In particular, ensure masthead light and stern light have correct horizontal arc of visibility.</i></p> <p><i>d. Navigational/signal lights shall be supplied by main and emergency source of power.)</i></p>			
<p>Q12</p>	<p>Is the ship detained as a result of this CIC?</p> <p><i>(Note:</i></p> <p><i>A ship may be detained if any deficiency is found for questions marked with “*”, which in the professional judgment of the PSCO, is serious enough to affect the ability of the crew to navigate the vessel safely for its forthcoming voyage.)</i></p>			

¹ COLREG rule 21:

- “Masthead light” means a white light placed over the fore and aft centreline of the vessel showing an unbroken light over an **arc of the horizon of 225 degrees** and so fixed as to show the light from right ahead to **22.5 degrees abaft the beam on either side of the vessel**.
- “Sternlight” means a white light placed as nearly as practicable at the stern showing an unbroken light over an **arc of the horizon of 135 degrees** and so fixed as to show the light of **67.5 degrees from right aft on each side of the vessel**.
- “Sidelights” means a green light on the starboard side and a red light on the port side each showing an unbroken light over an **arc of the horizon of 112.5 degrees** and so fixed as to show the light from right ahead to **22.5 degrees abaft the beam on its respective side**.