Bulletin

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AMSA PSC Information

--- Typical PSC deficiency related to ECDIS

With the compulsory utilization of Electronic Chart Display and Information System (ECDIS) on board the different type of vessel, It was noted some vessels were detained by AMSA for ECDIS related deficiencies detected during PSC inspection.

Based on the AMSA raised ECDIS related PSC deficiencies till end of 2015, we compiled this Issue of <CCS Bulletin>, expecting all duty crew staff to pay high attention to operational requirements for ECDIS, also reminding ship company to enhance shore supporting to their fleet.

For crew staff easy studying ECDIS deficiencies, we classified into four sections as marked as General Deficiency, Operational Deficiency, Management Deficiency and Technical Deficiency. Ship company was specially drawn your attention to Management Deficiency.

Special Reminder: In addition to holding the compulsory Generic ECDIS Training Certificate, and Familiarization Training Certificate, Duty crew staff **MUST** know very well how to operate the specific ECDIS on board YOUR vessel.

This Issue was treated as the Supplement to <CCS Bulletin> Issue No.29, 36, 38.

We thanks to AMSA for sharing us this valuable ECDIS deficiency list, which will be very beneficial to our ship company management improvement.

General Deficiency

- Unauthorized ECDIS in use.
- Non-compliant ECDIS not marked as FOR TRAINING USE ONLY.
- Bridge officers have used non approved ECDIS for navigation. ECDIS is also listed in vessels voyage plan.

- Safety Equipment Certificate does not specify whether nautical charts or ECDIS are primary means of navigation.
- ECDIS is listed as primary means of navigation on safety equipment certificate Form E with paper chart back up but official ENC charts not available on ECDIS.
- Type approval certificate for ECDIS not available onboard.
- ECDIS, part of the shipboard Safety Equipment Certificate, marked FOR TRAINING PURPOSE only.
- Master failed to notify Flag Authority or RO of failure of primary means of navigation ECDIS in accordance with SOLAS I/11 and SMS requirements.
- Non-compliant ECDIS used for navigation, Not marked FOR TRAINING USE ONLY; passage plan indicates ENC as aid only.
- Bridge officers have used a non-approved ECS system for navigation. ECDIS not listed on Form E and ECS operating in RCDS mode.
- Vessel using navigation chart which not provided in sec. 2.1 of safety equipment certificate. Vessel is provided with fully approved ECDIS
- Vessel certified ECDIS as stated on CSSE form E but not used for previous voyage.
- Evidence suggests that electronic charts were used while navigating through inner Great Barrier Reef route, same not marked for training purposes only (Form E does not list ECDIS as any means of navigation).

Operational Deficiency

- Officers not familiar with secondary alarm settings on ECDIS. SMS procedures for ECDIS not ship specific.
- Bridge officers fixing vessels position on charts infrequently during voyage from last port, intermediate positions fixed using unapproved ECDIS.
- Voyage plan from Port Botany to Melbourne and Melbourne to Adelaide does not have any range and bearing references from points of land or parallel index rangings as required by company procedures. Only GPS lat and long used for waypoints. Note vessel has two non

compliant ECDIS onboard.

- Key personnel not familiar with operation of ECDIS - safety parameter setting for the voyage.
- Unauthorized ECDIS/ECS, with out of date electronic information/charts, used for monitoring voyage.
- Bridge officers have turned off all grounding alarms on ECDIS. Crew member stated that alarms are turned off during pilotage to prevent too many alarms.
- No evidence that bridge officers have plotted radar or visual bearings on ECDIS. Bridge officers have solely relied on ECDIS generated GPS positions.
- Bridge officers unfamiliar with procedure to switch between automated position fixing sources on ECDIS. One simulated failure of DGPS input.
- Crew members have not used manual plotting for vessel ECDIS during voyage from Port Kelang to Brisbane. Also the PSSA alert has been disabled on ECDIS voyage check.
- Cross track value not set correctly in ECDIS, once Brisbane to Port Kembla track is validated, it generates 246 errors. During arrival in Brisbane the Voyage plan was modified in agreement with the pilot (eastern Channel instead of middle Channel). Current track was not modified to reflect this decision.
- Bridge officers have relied entirely on GPS positions generated by approved ECDIS or GPS positions plotted at 4 hour intervals on paper charts for navigation. No evidence that bridge officers have verified vessels position with other means with appropriate frequency.
- Last voyage: ECDIS: excessive cross track distance. Minimum scale ID alarm not selected.
- ECDIS - setting of safety depth could not be demonstrated by navigation officers.
- Key officers unable to demonstrate independent method of position fixing in ECDIS.
- On the Safety Equipment Certificate Form E, Only Navigational charts is listed as Primary means of navigation, however unapproved ECDIS is being used as primary means of navigation in addition navigating officers not trained in the use of ECDIS, this and all of the above deficiencies are objective evidence that the safety management system as

implemented on board fails to adequately satisfy the requirements of the ISM code sections 7,8 and 10 .

- Bridge officers unable to demonstrate the manual plotting of radar and visual bearings on vessels ECDIS.
- ECDIS safety depth setting (11m) less than Max draught (11.3m) for the last voyage to Brisbane .
- Ship position fixing at appropriate interval not checked on ECDIS by independent means of position fixing.
- Monitoring of passage plan not carried out using ECDIS -ECDIS certified, vessel used paper charts for the completed voyage
- Bridge officers have not crosschecked ECDIS generated positions with either visual or radar positions.
- Passage planning inadequate - no instructions on setting of safety depth/ contour parameters for ECDIS, Master standing order on bridge refers to use of paper charts while vessel is using ECDIS.
- ECDIS parameters (safety depth, safety contours, channel limits etc) not set appropriately for pilot logs for previous voyage. Voyage plan checklist not used since 29/4/2015. (Rectified during inspection).
- Both ECDIS onboard unable to change to secondary source of position fixing.
- Bridge officers unfamiliar with running voyage safety check, changing of position sources and depth contour settings on ECDIS.
- Officers unfamiliar with critical alarm on ECDIS at time of inspection.
- ECDIS alerts for PSSA areas set to ignore.
- Bridge officer unfamiliar with operation of ECDIS. Bridge officer was unable to change over to second GPS system when primary GPS system was switched off. Officer set vessel position fixing method to dead reckoning mode.
- Navigating officers unable to demonstrate the plotting of the vessels position manually by

range and bearing on ECDIS.

- Changeover from main to reserve power source for ECDIS unable to be demonstrated.
- ECDIS listed on vessel's Form 'E' - last update of charts October 2013. -vessel has been using paper navigation charts.
- ECDIS AUS chart cells not corrected (updated) to latest notice to mariners.
- Voyage Plan template lists paper charts and not ENCs. Not approved mouse in use on ECDIS Station 1. Overscale ID not selected and not provided in the SMS ECDIS setting list. Safety Depth settings, although correct, not formally defined by the Master as provided by SMS.
- Voyage plans from Port Kembla to Melbourne and Melbourne to Adelaide do not indicate on voyage charts the following: areas of navigational hazard, Wheel over positions, Radar conspicuous objects, transit bearings, and clearing bearings and ranges. As required by company voyage planning procedures. Note vessels has two non-compliant ECDIS onboard.
- Vessel in approaching Brisbane has deviated from planned voyage plan in accordance with Pilot instructions. Deviation plan reflected and monitored on paper charts but not on ECDIS.
- No evidence of position fixing by radar on electronic chart. Excessive cross track distance generating numerous alarms when safety check performed on loaded track. Safety depth not correctly set on coastal voyage. Minimum scale alarm not set. Not approved mouse in use on both ECDIS Stations.
- Electronic Navigation Charts (ENC) not loaded and updated on backup ECDIS.
- ECDIS safety contour and safety depth setting incorrect (setting was 0 meters while Max draught was 10.7 meters). Navigation officers not familiar with the operation of ECDIS (Safety Equipment Cert Form E indicating ECDIS as primary and Charts as backup). The ship was actually navigated from Japan to Brisbane with Charts as primary and ECDIS as backup.
- Passage plan does not contain information for configuration of ECDIS parameters (safety

depth, safety contour etc.)

Management Deficiency

- Officers not familiar with secondary alarm settings on ECDIS.SMS procedures for ECDIS not ship specific.
- The Safety Management System as implemented on board fails to ensure the following elements of the ISM Code : No procedures or instructions are developed for key shipboard operations (ECDIS) - Element 7; inadequate familiarization with duties - Element 6 and inadequate Emergency Preparedness - Element 8 based on deficiency nos. 5 and 6.
- No onboard instructions or guidance from company on the safe operation of ECDIS.
- ECDIS (Main and backup systems) Digital Certificate not maintained to latest IHO standards - displaying expiry date of September 2013.
- ECDIS electronic charts for completed voyage not corrected to latest notice to mariners.
- Navigating officers - C/Officer, 1st/Officer and 2nd/Officer do not have Type approved ECDIS familiarization training.
- Navigation officers (Chief & second officer) not completed ship specific ECDIS familiarization training as required by STCW.
- Ships safety management system (SMS) does not have procedures for use of ECDIS. SE certificate shows ECDIS as primary means of navigation.
- Third officer does not hold ECDIS training (general familiarization) endorsement. ECDIS is sole means of navigation.
- ECDIS is used as primary means of navigation & company SMS does not include familiarization training procedure for these units. (Master & 3rd officer without specific training for Sperry ECDIS system)
- Certificates of approval for ECDIS (both) expired (5/3/2014); During week 47/14 now, Electronic charts are corrected up to week 37/14, latest corrections not available.
- ECDIS has warning activated that at least one used charts may not be up to date.
- Vessels Safety Management System (including bridge procedures and checklists) does not

reflect the presence of ECDIS as the primary (and sole) means of navigation.

- Procedures for critical operations - SMS does not specify procedures for passage planning, execution and monitoring using ECDIS (vessel fully ECDIS).
- Not all the electronic charts for the intended voyage are available on board (ECDIS listed on form E) paper charts as back up.

Technical Deficiency

- ECDIS No. 1 - Audible alarm not operational.
- Bridge Alarm Console indicating ECDIS Main and Backup Power Failure.
- Port side ECDIS screen discolored.
- One ECDIS out of two defective.
- Defective ECDIS and Sat-C not reported to authorities as required by SOLAS.
- Backup power not in use for primary and back up ECDIS.

CCS Australia Office

January 19, 2016

Announcement:

1. Intention is to assist and ensure owners to understand and well prepared, ensuring all updated requirements from AMSA can be met
2. For more information, please visit AMSA website at www.amsa.gov.au and CCS website at www.ccs.org.cn
3. The information contained does not and cannot supersede any AMSA or related governing parties requirements as well as CCS class rules and regulations.