



Making Waves

**IVSS CAMPAIGN AND NEWSLETTER
JUNE 2024**

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1. Crew seminar

The Company conducted two crew seminars in May 2024. One in Vietnam and the other in India.

There was commitment from the top management as the CEO Mr. Martin Henry, despite his busy schedule planned his trip to Vietnam and was fully involved in the 2-day seminar. The CEO emphasized the Company's three core values **TEAMWORK, TRUST, and TRANSPARENCY** to the attendees during the welcome address.

The seminars provided an incredible opportunity for the ship and shore staff to connect with each other and to engage in insightful discussions on various topics.

There was face to face interaction with our budding and experienced seafarers thus promoting real-time training, collaboration, discussion and immediate feedback.

Team-building exercises were also carried out to unlock creativity, make every member feel valued and to build stronger bond with colleagues.

The seminar also provided a forum for developing ship-shore trust which is very vital for safe operations.

Crew Seminars will continue to be a strong focus through the end of 2024 and into 2025. We will bring the latest company hot topics, industry issues, and case studies to the ship staff and interact with them.

The next seminar is planned in China and Philippines in July 2024.





2. Hatch cover crush fatality

Kindly discuss attached incident report “**Hatch cover crush fatality**” issued in the MARS BULLETIN with all officers and crew.

Keeping hatches slightly open using only hydraulic power is a dangerous practice. A failure in the hydraulic system could cause the hatch cover to quickly close without any warning. This dangerous practice must be discussed during toolbox meeting prior to opening hatches at sea for hold cleaning or cosmetic maintenance.

The safety officer shall also ensure that no crew put themselves in a dangerous position (pinch point) if the hatch cover is kept open.

3. Cyber security

The Office will be sending video training links to each vessel along with the instructions by email. Once received all crew on board shall view the cybersecurity videos.

Typically, the video's will be made available on the Master's Laptop, CEO's PC and Admin 1 pc.

We propose that the Engine Dept. must watch the video on the CEO's PC likewise the Deck Dept. will watch on Admin 1.

The Office will be providing details of the video to be viewed shortly. A poster will also be made available to be displayed.

4. Karco training

The ship staff shall conduct the following training modules this month:

- **TEN SURE WAYS TO HURT YOUR HANDS AND ARMS – VOL 1**
- **SEEMP**
- **PILOT LADDER**

The duration of each title is only about 10-15 minutes.

Training must be carried out in two sessions (based on work/rest hours) to ensure all crew are able to attend. Each session must be opened and concluded by a Senior Officer.

After the training, the Senior Officer should have an interactive session with the crew, discuss questions and the crew can also share their experience (Reflective learning). Once the training is completed, each crew shall log on individually and an assessment must be completed, and the records must be exported to KARCO system.

The Master can contact IT department and support team (mohammed.ali@karcoservices.com, support@karcoservices.com) for any queries regarding KARCO.

Records of training to be maintained in form 3.2.3

5. Testing and inspection of oil filtering equipment

The Chief engineer shall discuss the attached AMSA marine notice regarding the oil filtering equipment with all engineers and inform the ship manager if the vessel is in compliance with all the requirements.

6. Port state control – be prepared for new campaigns and restrictions

Attached DNV BULLETIN Provides an overview of current developments in Port State Control (PSC) inspections and focus campaigns in China, Australia, and the USA. Special attention is being placed on the ongoing PSC focus campaign in China on machinery and electrical items.

The Master shall discuss the same with all crew on board and take necessary measures.

The **form 6.6.2** shall be completed prior calling China / USA/ Australia and filed in G DRIVE.

7. RIGHTSHIP Section 2 – Certificate and personnel management

RIGHTSHIP has commenced inspection of dry vessels using their checklist (RISQ) which is uploaded on the landing page of SHEQ. The RIGHTSHIP inspection is similar to the OCIMF SIRE inspection on tankers.

There are 16 chapters in the RIGHTSHIP questionnaire.

The Company will send guidance for each section as part of the monthly campaign. For this month, the Master and CEO shall go through the attached “**CERTIFICATE AND PERSONNEL MANAGEMENT**” checklist and ensure if vessel is complying with all items.

8. ENCLOSED SPACE CLAIMS ONE VICTIM

Please find attached enclosed space incident bulletin issued by the Nautical institute. The Master shall discuss the enclosed space incident and the lessons learned with all officers and crew at the next opportunity.

9. EMERGENCY NAV SYSTEM TABLET

The company is providing “EMERGENCY NAVIGATION SYSTEM TABLET” along with AIS pilot plug repeater to each vessel in due course.

The purpose of the tablet is to provide an easier and reliable backup solution in case both the ECDIS fails.

All deck officers shall be familiar with the attached Quick Reference Guide.

The Master can contact CHARTWORLD regarding any queries in the use of the Tablet.

MARS 202422

Hatch cover crush fatality

As edited from Marine Department (Hong Kong) report published October 2022

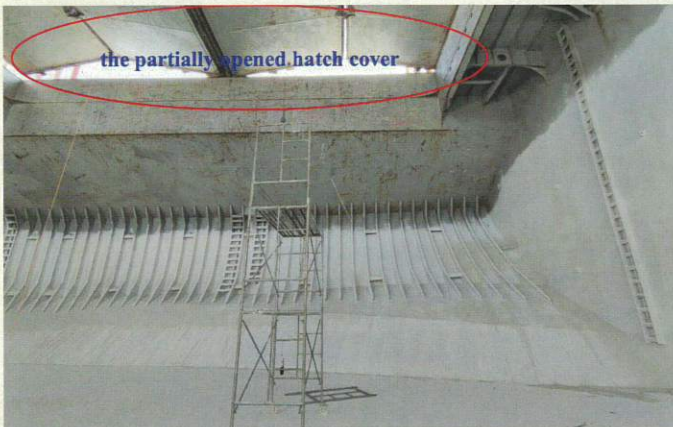
→ A bulk carrier in ballast was underway for the next port of loading. The deck crew were coating the vessel's holds with lime in preparation for cargo. Some crew were in the hold applying the lime while others, in support, were on deck. An officer was on deck in an overall supervisory role.

In the late afternoon the hold coating operation work was nearing completion. The officer in charge needed to take photos of the coated holds, as required by the charterer. He slipped in between the partially open hatch cover and the hatch coaming to take the pictures. The crew members in the cargo hold heard the sound of the hatch cover moving and a loud yell.

The crew members working in the cargo hold came out to the main deck and asked why the hatch cover was closed. The deck crew replied that no one was operating the hatch cover at the time; they had not closed it. The officer was then found caught between the now closed hatch cover and the coaming. A return hydraulic oil hose for the hatch cover operation had ruptured and the hydraulic oil spilled on deck. This had caused the closure of the hatch by gravity.

The victim was killed instantly. His body was recovered from the scene as soon as the hatch cover control was repaired. Two days later, upon arrival at port the victim's body was delivered to shore authorities.

The investigation found, among others, that the hatch cover hydraulic lines and fittings were not incorporated into the vessel's planned maintenance system (PMS) so that the manufacturer's recommendations for use, maintenance and inspection could be correctly employed.



Lessons learned

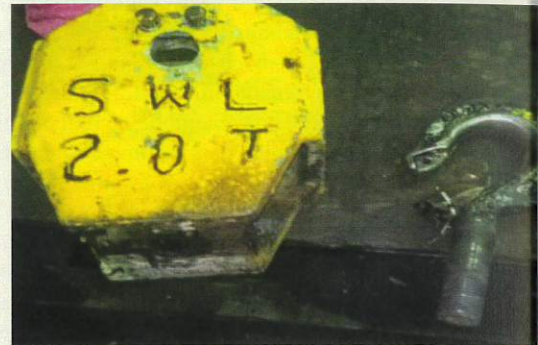
- The victim probably did not realise he was putting himself in a dangerous position – only the hydraulic pressure was keeping the hatch cover open. When this pressure was released due to a line failure the hatch cover quickly closed by gravity.
- Keeping hatches slightly open using only hydraulic pressure is a dangerous practice. Any deficiency in the hydraulic line can cause the hatch to quickly close without warning.
- Shipboard safety management system (SMS) procedures and the PMS should incorporate manufacturer's recommended operation, maintenance and inspection intervals.

MARS 202423

Engine room gantry hook defect

→ A vessel was in dry dock and crew were engaged in various maintenance tasks. In the engine room, the gantry crane was used to lift the main engine. The supervisor noticed that the hook was not able to rotate under load. Work was stopped, relieved, and the hook was disassembled to permit investigation.

It was found that the inner mechanism of the hook was in poor condition. The thrust bearing was damaged and the thrust rollers were in poor condition.



Hook dismantled



Thrust bearing found damaged

Lessons learned

- A stop work initiative is always advisable if a dangerous situation arises or if something seems out of the ordinary or no



Testing and inspection of oil filtering equipment approved to meet Resolution MEPC.107(49)

Purpose

This marine notice informs ship operators and recognised organisations of AMSA's interpretation for the installation and testing of oil filtering equipment (oily water separators) installed on ships.

Oil filtering equipment installed on a ship on or after 1 January 2005 must be approved to meet Resolution MEPC.107(49) to comply with MARPOL Annex I Regulation 14.

The requirements include;

- a truly representative sample of the effluent with adequate pressure and flow is supplied to the 15ppm bilge alarm (6.2.2).
- provision of fail-safe arrangements to avoid any discharge in case of malfunction of the 15ppm bilge alarm (4.1.3).
- 15ppm bilge alarm is fitted with an electronic device that is pre-set to activate when the effluent exceeds 15ppm and operates automatically if at any time the 15ppm bilge alarm should fail to function (4.2.7).
- the response time of the 15ppm bilge alarm. This is the time that elapses between an alteration in the sample being supplied to the 15ppm bilge alarm and the ppm display showing the correct response. Response time should not exceed 5 seconds (4.2.6).
- the setup of the installation must minimise the time it takes for the system to respond when the discharge from the 15ppm bilge separator exceeds 15ppm. This includes the time it takes for the automatic stopping device to activate and prevent discharge into the water. This should take less than 20 seconds. It must not exceed that limit under any circumstances (as per section 6.2.1).

MEPC. 107(49) Installation arrangement

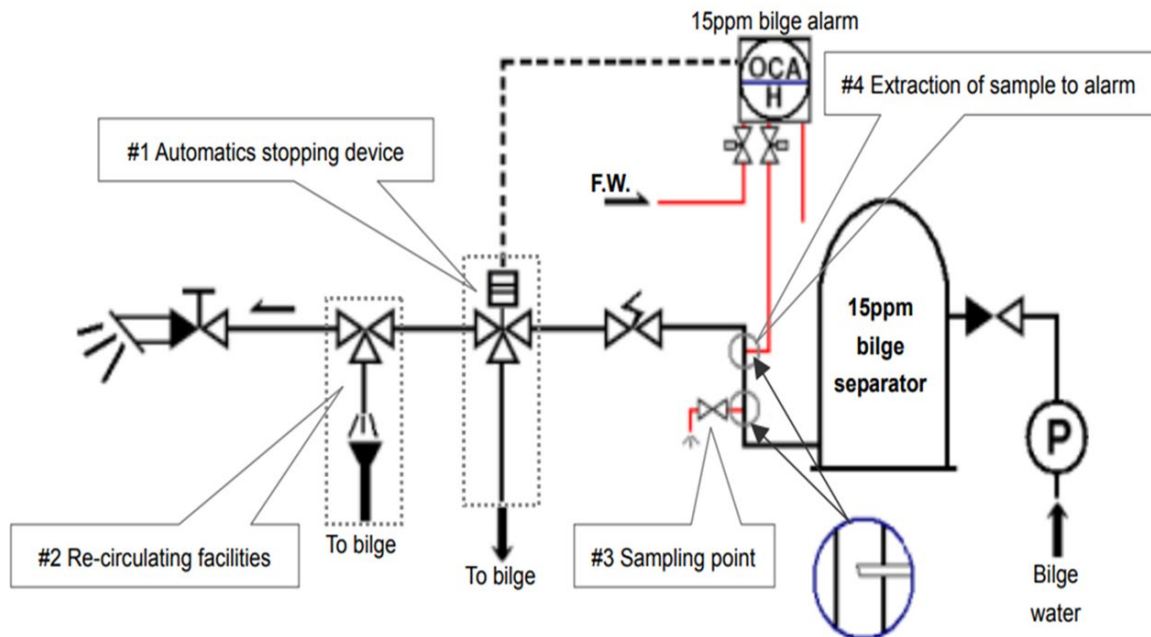


Fig. 1 - Example of piping arrangements

AMSA PSC procedure

AMSA port State control officers (PSCOs) will inspect the condition, and operation, of the oily-water separator, filtering equipment and alarm, stopping or monitoring arrangements as described in the Procedures for Port State Control, 2023 Resolution A.1185(33).

Operational testing of oil filtering equipment will require the equipment to be configured to circulate liquid from bilge tank to bilge tank (recirculating facility) and provide an effluent sample to the 15ppm bilge alarm – simulating the discharge of 15ppm bilge separator effluent overboard. When a simulation of effluent sample greater than 15ppm is applied, the PSCO will confirm that the alarm is activated, and that the automatic stopping device (3-way valve) stops effluent discharge overboard. This indicates compliant operation of the system.

The PSCO will confirm that there is a flow of effluent sample from the 15ppm bilge separator that is truly representative, with adequate pressure and flow, to the 15ppm bilge alarm while effluent is being simulated to flow overboard.

In cases where the flow of effluent sample is not a representative sample, including blockage of the sample line or incorrect operation of valves, it is expected that, in accordance with MEPC.107(49) requirements, the fail-safe arrangement will activate the automatic stopping device (3-way valve) and stop effluent discharge overboard.

AMSA's interpretation is that the failure of the 15ppm bilge alarm to activate the automatic stopping device in the absence of a representative sample of the effluent, represents non-compliance with Resolution MEPC.107(49). That is there is no fail-safe arrangement required by technical specification 4.1.3.



Fig 2.



Fig 3.

Figures 2 and 3 show a sample line found blocked when no flow observed from 15ppm bilge alarm outlet.

AMSA is aware various classification societies advocate for the installation of “flow sensors” in the 15ppm bilge alarm sample line. The flow sensors activate an alarm and operate the automatic stopping arrangements when a truly representative sample, with adequate pressure and flow, is not present at the 15ppm bilge alarm. They also recommend the sealing of all valves installed in the effluent sample pipes so that the valves are locked and sealed in their normal operating position to ensure adequate effluent sampling.

AMSA accepts that MEPC 107(49) does not specifically require the fitting of flow or pressure sensors.



Fig 4.



Fig 5.

The above figures 4 and 5 show a flow sensor and alarm fitted to the 15ppm bilge alarm sample line.



Fig 6.

Sample line valve to 15ppm bilge alarm sealed open, and signage fitted.



Fig 7.

Verification of flow of sample water from 15ppm bilge alarm.

Considerations during testing

The following sets out AMSA's considerations when testing oily water separators during port state control inspection with respect to two types of systems approved under MEPC 107(49):

1. MEPC 107(49) approved system that is fitted with an effluent sample flow sensor to 15ppm bilge alarm.

Operational testing of the equipment is performed by stopping the sample water flow to the 15ppm bilge alarm. If the 15ppm bilge alarm does not alarm when effluent sample flow is stopped for more than 5 seconds, and the automatic stopping device is not activated within 20 seconds, this is considered a failure of the oily discharge monitoring and control system and the 15ppm alarm arrangements. The ship is likely to be detained until the system complies with MARPOL requirements.

2. MEPC 107(49) approved system that is not fitted with an effluent sample flow sensor to the 15ppm bilge alarm.

The sample water flow through 15ppm bilge alarm should be unobstructed. All valve(s) fitted for sampling line to the 15ppm bilge alarm should be in the normal operating position when testing is performed during port state control inspections. During the test the following will be considered:

- a) If operational testing of the equipment commences with effluent sample valves open, this is evidence of the system being used correctly in service. If there is no 15ppm bilge alarm and automatic stopping device activation after shutting the effluent

sample valve, then the equipment is non-compliant. The equipment must be made compliant. As a temporary measure, valves to and from 15ppm bilge alarm can be secured and sealed open to ensure the flow of effluent sample cannot be stopped or manipulated whilst the equipment is operating, as required by MEPC 107(49) 4.2.10.1.

- b) If operational testing of the equipment commences with the effluent sample valve shut or no flow of effluent sample possible through the 15ppm bilge alarm and the automatic stopping device does not activate, this is viewed as evidence that wilful manipulation of the equipment is possible. As pollution of the environment may occur, the ship is likely to be detained until the equipment complies and crew are sufficiently familiar with the operation of the system.

- c) If operational testing of the equipment commences with the effluent sample valve closed and with clean water, used for cleaning or calibration, flowing through the 15ppm bilge alarm and the automatic stopping device does not activate, then the equipment is non-compliant to MEPC 107(49) 4.2.10.2. The ship may be considered for detention until the equipment complies and crew are sufficiently familiar with the operation of the system.

Guidelines

[MEPC 107\(49\)](#) – Resolution MEPC 107(49)

PORT STATE CONTROL – BE PREPARED FOR NEW CAMPAIGNS AND RESTRICTIONS

Relevant for ship owners and managers as well as flag states.

May 2024

This news provides an overview of current developments in Port State Control (PSC) inspections and focus campaigns in China, Australia, and the USA. Special attention is being placed on the ongoing PSC focus campaign in China on machinery and electrical items.



The following are recent PSC developments for vessel owners/managers and crews to be aware of:

The China Maritime Safety Administration (China MSA)

New targeting scheme

The China MSA has implemented a stricter monitoring of vessels meeting any of the following criteria:

- Vessel has been detained twice within the last 12 months, irrespective of the place of detention.
- Vessel has been penalized twice in 12 consecutive months for serious violations, such as:
 - Insufficient manning
 - Maliciously turning off the AIS system
 - Intentional illegal discharging of pollution
 - Overloading
 - Sea-related transportation by inland waterway vessels
- Other reasons, such as evasion of penalty, unlawful certificates, major alterations without approval, etc.

Vessels included in the special follow-up are most likely subject to PSC inspection at every port call in China. In addition, all inspections performed on board those vessels are likely to be performed "in a detailed manner".

To exclude a vessel from the scheme, the shipping company may apply to the China MSA administration after three months from the date of its inclusion. For details, please see "China MSA Circular – Issuing the Regulations on the Supervision and Administration of Vessels under Special Follow-up".

Focus on machinery/electrical systems

The China MSA has announced this additional "Special Campaign to Prevent Marine Mechanical and Electrical Equipment Failures", to take place during normal PSC inspections in all Chinese ports. The focused inspection started on 7 April 2024 and will last until 31 October 2024.

The circular inter alia states the following:

- Class societies in China shall strengthen the inspection and testing of newly built and rebuilt ships, with a focus on their mechanical and electrical equipment.
- Ships' crews shall report such failures to the local maritime administration and accept special safety inspections by the maritime administration as required.
- Those who fail to proactively report mechanical and electrical equipment failures will be severely punished.
- For ships that have experienced two or more mechanical and electrical equipment failures within 12 months, the maritime administration will require shipping companies and class societies to jointly conduct inspections and require the ships to submit failure analysis reports and measures to prevent mechanical and electrical equipment failures.

The circular also includes "Guidelines on Special Self-inspection for Preventing Marine Mechanical and Electrical Equipment Failures".

Checklist published by the China MSA

To ensure safety and technical conditions as well as mechanical and electrical equipment are in accordance with relevant provisions of international conventions as well as Chinese laws and regulations, crews are asked to conduct self-inspection according to the above-mentioned guidelines on self-inspection. The detailed checklist can be found in [Appendix 1](#) of this news.

For the Shanghai MSA, Guangzhou MSA, and Zhoushan MSA, there are special requirements – please [see Appendices 2 and 3](#).

How to prepare

The aim of the initiatives by the China, Shanghai, Guangzhou and Zhoushan MSAs is the prevention of propulsion and electrical power loss. The following checks are additionally recommended by DNV:

- Maintenance records for both planned and corrective maintenance should be up-to-date and the description of performed maintenance should be sufficiently detailed.
- For those cases where corrective maintenance (repair) has been required, it is recommended that a probable cause of the failure is identified, or at least an investigation initiated, and, where possible, maintenance routines are updated to prevent reoccurrence.

- The condition of lubrication and fuel oil filters should be monitored and documented, e.g. last filter changeover/replacement, average number of cycles per hour for automatic filters, etc.
- Testing of the emergency generator should be conducted and documented on a regular basis, including automatic connection to the emergency switchboard (ESB) and loading of the generator. Automatic starting of the ESB connected steering gear pump after loss of power should be included.
- Starting of the standby generator, including any preferential trips, should be tested and documented in good time before arrival.
- Any failures or damages that can be presumed to lead to a condition of class shall have been reported to class and records of the notification shall be available to PSC for inspection.

The Australian Maritime and Safety Authority (AMSA)

No remote survey for PSC rectification surveys

The AMSA announced that the PSC rectification survey performed after a detention in one of its ports must be carried out with physical attendance.

In the past, it was possible to perform remote surveys in very special cases (e.g. a detention in a remote port with a minor defect when no surveyor is available) and thus on a case-by-case basis. In any case, DNV will do its utmost to support with an attendance survey.

For further details, please review AMSA's websites

The United States Coast Guard (USCG)

Focus on fire safety from 1 April until 30 June 2024

The USCG has announced an ongoing Enhanced Examination Program (EEP), which is similar to the Concentrated Inspection Campaigns (CIC) performed by other PSC regimes.

For the three-month period of 1 April 2024 to 30 June 2024, the USCG PSC inspectors are directed to carry out an enhanced examination during regular USCG examinations on board cargo ships verifying fire safety in the engine room, focusing on the following items:

- Proper operation of at least one fuel oil shutoff valve via remote operation (SOLAS II-2/4.2.2.3.4).
- Proper operation of control of stopping power ventilation for machinery spaces from outside the machinery space (SOLAS II-2/5.2.1.2).
- Presence and condition of protection against hot surfaces, i.e. lagging (SOLAS II-2/26.1).

It is important to note that PSC inspectors are instructed not to test the operation of fuel oil shutoff valves affecting the current operation of a ship's machinery.

How to prepare

Crews are advised to verify the following:

- Correct operation of remote and local control of fuel oil shutoff valves and functionality of power ventilation stopping arrangements

- Proper, uncontaminated lagging in the engine rooms and other machinery spaces, ensuring appropriate protection against hot surfaces.

Although the CIC on fire safety by the Paris and Tokyo MoUs in 2023 only partly overlap with this EEP, the DNV Technical and Regulatory News No. 20/2023 and the corresponding webinar contain relevant information. Therefore, it is recommended to familiarize yourself with these (see references below).

Recommendations

DNV suggests ship owners/managers review all items listed in this news, in summary:

- Ensure all machinery is in proper condition.
- Perform planned and corrective maintenance and record it in sufficient detail.
- Test safety equipment as required.
- Report failures and damages to class society and make records of it available to PSC inspectors.
- Ensure the engine room and other machinery spaces are clean, and pipe lagging and insulation are kept free from possible oil contamination.

References

- China MSA on Issuing the Regulations on the Supervision and Administration of Vessels under Special Follow-up, issued by China MSA on 2023-10-23
- Circular of the China MSA on 2024-04-03
- China MSA Special Safety Inspection Period - Mechanical and Electrical Equipment (April-October 2024), Liberia Flag Marine Advisory 08/2024 issued on 2024-04-12/
[marine advisory 08_24.pdf \(liscr.com\)](#)
- Circular of the Shanghai MSA on Strengthening the Safety Management of Ships with Mechanical and Electrical Equipment Failureshmsa-0374-2022-86277, released 2022-06-03
- Notice of Zhoushan MSA on Strengthening the Management of Surveys over Foreign Ships Repaired, issued by Zhoushan MSA on 2024-03-29
- Self-checklist for Ships Intending to Enter Guangzhou Port, issued by Guangzhou MSA on 2024-03-19
- Information regarding remote survey requests for ships detained in Australia, ref. to [AMSA website](#) last updated 2024-02-01
- USCG Enhanced Examination Program (April-June 2024), Liberia Flag Marine Advisory 07/2024, issued on 2024-04-11 /
[marine advisory 07_2024.pdf \(liscr.com\)](#)
- DNV's Technical and Regulatory news, 20/2023: [Port State Control CIC on Fire Safety](#) from 1 September
- DNV's webinar on CIC fire safety, Aug 2023: [Port State Control - prepare for the CIC on fire safety](#) starting September
- [DNV's Technical and Regulatory news, 11/2024](#)

Contact

For customers:

DATE - Direct Access to Technical Experts via [My Services](#) on Veracity.

Otherwise:

Use our [office locator](#) to find the nearest office.



APPENDIX 1: CHECKLIST PUBLISHED BY THE CHINA MSA

Below points are extracted from the checklist issues by the China MSA:

- **Proper function of main propulsion unit** (fuel system, communication and adjacent instruments, starting air, lube oil system, cooling water system, control air system, engine reversing measures),
- **Proper function of safety, monitoring and remote control and other auxiliary devices of the main propulsion unit** (all alarms in working condition oil mist concentration detector, no alarm records related to safety and automatic shutdown of engine),
- **Ships steam boiler in order** (water supply system, combustion system, safety system),
- **Ships main power supply in order** (sufficient capacity to account for generator failures, safety systems, switchboards and control panel, insulation monitoring),
- **Emergency power supply in order** (start and operation, starting device meets requirements, fuel reserves, switch to automatic mode, power to emergency systems after blackout within 45s, emergency battery pack, quick closing valve, air supply, leakages),
- **Steering gear in order** (automatic start after power failure, backup power equipment, hydraulic oil storage tank, alarms, performance, communication facilities)
- **Crew** is competent and familiar with the operation of mechanical and electrical equipment within their duties (certificates, Communication, familiar with operation, testing and emergency procedures),
- **System documents related to mechanical and electrical equipment** are effectively implemented on board (shipping company support to master, qualified crew, communication, proper procedures, emergency response for equipment failure, maintenance plan implemented)
- **Other issues** that may cause marine mechanical and electrical failures (e.g maloperation of fuel oil quick closing valve, lack of protective facilities, failure of bilge water system, crew fatigue, etc.).

APPENDIX 2: ADDITIONAL REQUIREMENTS FROM GUANGZHOU MSA

In addition to the checklist published by China MSA, Guangzhou MSA has published a "Self-checklist for Ships Intending to Enter Guangzhou Port". This checklist is to be filled in before entering the port of Guangzhou. Based on the content of the checklist the PSC inspector might reduce scope of inspections. However, incorrect information given in the checklist might be punished according to local law.

APPENDIX 3: ADDITIONAL REQUIREMENTS ZHOUSHAN MSA

Zhoushan MSA has published the "Notice of Zhoushan Maritime Safety Administration on Strengthening the Management of Surveys over Foreign Ships Repaired" to improve the quality of surveys. This circular includes the following:

- **Several requirements for Ship Survey Agencies** (official Chinese naming for class societies), for details see attached circular, "Notice of Zhoushan Maritime Safety Administration on Strengthening the Management of Surveys over Foreign Ships Repaired".
- **Foreign vessels** that were repaired and have experienced electro-mechanical failures during departure resulting in any urgent situation or dangerous case are listed as a target of the priority check of PSC of Zhoushan MSA.
- **In case a ship suffers from electro-mechanical failure twice (2) or more times** within six (6) months resulting in any urgent situation or dangerous case, the vessel will be listed as a target the priority check of PSC of Zhoushan MSA.

Section 2: Certificate and personnel management

NO	QUESTION	GUIDANCE	REFERENCE / GUIDANCE	Verified by Master / Comments
2.1	Is the latest Class Survey Status available and are all statutory certificates listed in the Class Survey Status valid, and is the vessel free of condition of class or significant recommendations and are all classification and statutory surveys not overdue?	<p align="center">Guide to Inspection</p> <p>The PDF copy of the class survey status that was evaluated during the inspection shall be attached to the inspection report by the inspector. Record Finding if the vessel has any condition of class, significant recommendation, and memorandum.</p> <p>The class survey status shall be available on board and should be dated not more than 14 days prior to the date of the inspection. Record a Finding if an up-to-date class survey status was not available on board.</p> <p>The Inspector should accept electronic certificates containing the features below:</p> <ol style="list-style-type: none"> 1. Validity and consistency with the format and content required by the relevant international convention or instrument, as applicable 2. Protected from edits, modifications, or revisions other than those authorised by the issuer or the Administration 3. A unique tracking number, and 4. A printable and visible symbol that confirms the source of issuance <p align="center">(GUIDELINES FOR THE USE OF ELECTRONIC CERTIFICATES, 2016)</p> <p>The inspector may request the Master to demonstrate the validity of the electronic certificate following the instructions available on board the ship.</p> <p>If the Master fails to demonstrate, to the satisfaction of the inspector, that an electronic certificate meets the requirements, the inspector shall record a Finding.</p> <p>The IMSBC Code fitness certificate in accordance with IMSBC Code (2020 Edition) may be issued upon request from owners/ shipbuilders on voluntary basis from 1 January 2020.</p> <p>For cargoes listed in Table G1 (Cargo newly added and requirements on construction/equipment (IMSBC Code-4th amendment) as 'Group A and B' or 'Group B', IMSBC Code (2020 Edition) a fitness certificate will be issued in cases where ships comply with requirements in Table G1.</p>	<p>Vessel to have latest CLASS survey report prior inspection.</p> <p>Master to demonstrate validity of electronic certificates.</p> <p>SMS REFERENCE - FLEET PROCEDURES MANUAL - 2.0. SHEQ MANAGEMENT SYSTEM</p> <p>MEMO /ELECTRONIC CLEARANCE DOCUMENTS / CLASSNK -E CERTIFICATE / MARSHALL ISLANDS CERTIFICATE</p>	<input type="checkbox"/>
2.2	Has the vessel been provided with certificates of financial security for seafarers? (M)	<p align="center">Guide to Inspection</p> <p>From 18 January 2017, all ships which are subject to MLC have been required to carry and display on board two certificates confirming that financial security is in place for:</p> <p>(a) shipowners' liabilities for repatriation of crew, essential needs such as food, accommodation, medical care and up to four months' outstanding contractual wages and entitlements in the event of abandonment (Regulation 2.5, Standard A2.5.2 Paragraph 9)</p> <p>(b) contractual payments for death or long-term disability due to an occupational injury, illness or hazard set out in the employment agreement or collective agreement (Regulation 4.2, Standard A4.2.1 paragraph 1(b))</p> <p align="center">(FAQs: Maritime Labour Convention 2006 As Amended Financial Security Requirements - The Shipowners' Club, 2020)</p>	<p>Vessel to display both these financial security certificates on notice boards (Latest valid certificate MLC 2.5.2 / 4.2.1)</p> <p>SMS REFERENCE - PERSONNEL MANUAL/11 FINANCIAL SECURITY</p>	<input type="checkbox"/>
2.3	Can all crew communicate effectively in the working language of the ship? (V)	<p align="center">Guide to Inspection</p> <p>Record the common language and the level of English proficiency of the crew on board the vessel.</p> <p>On all ships, to ensure effective crew performance in safety matters, a working language shall be established and recorded in the ship's logbook. The company, as defined in regulation IX/1, or the Master, as appropriate, shall determine the appropriate working language. Each seafarer shall be required to understand and, where appropriate, give orders and instructions and to report back in that language. If the working language is not an official language of the State whose Flag the ship is entitled to fly, all plans and lists required to be posted shall include a translation into the working language.</p> <p>On ships to which SOLAS chapter I applies, English must be used on the bridge as the working language for bridge-to-bridge and bridge-to-shore safety communications as well as for communications on board between the pilot and bridge watchkeeping personnel, unless those directly involved in the communication speak a common language other than English. (SOLAS 74, 2020)</p>	<p>STCW - Section A-I/14</p> <p>SOLAS regulation V/14.3/14.4</p> <p>Personnel manual – chapter 3 - CONDITIONS OF EMPLOYMENT – section 2 mentions the working language on board is ENGLISH. Kindly discuss this section with all officers and crew .</p> <p>Company has printed on the deck logbook that English</p>	<input type="checkbox"/>

Section 2: Certificate and personnel management

			<p>is the working language on board.</p> <p>Master shall ensure that working language (English) is recorded in MPA Official Logbook , PAGE 19 (APPLICABLE ONLY FOR SINGAPORE FLAG VESSELS).</p> <p>Ensure all bridge-to-bridge and bridge-to-shore communications as well as for communications on board between the pilot and bridge watch keeping personnel are only in English as per SOLAS regulation V/14.3 /14.4</p> <p>Ensure Safety, security and environmentally critical information, procedures and documentation are available / posted ONLY in English language. If any information is posted in any other language on notice board or at any other location , same shall be removed.</p> <p>Ensure all day-to-day communications on board are only in ENGLISH.</p> <p>Ensure the instructions in SOLAS training manual, the fire safety operational booklet are in ENGLISH.</p>	
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Section 2: Certificate and personnel management

2.4	Is the vessel's manning in compliance with the Safe Manning Certificate? (V)	<p style="text-align: center;">Guide to Inspection</p> <p>Record in comments the actual and required manning of the vessel. Minimum safe manning is the level of manning that will ensure that a ship is sufficiently, effectively, and efficiently manned to provide safety and security of the ship, safe navigation and operations at sea, safe operations in port, prevention of human injury or loss of life, the avoidance of damage to the marine environment and property, and to ensure the welfare and health of seafarers through the avoidance of fatigue.</p> <p>Except in ships of limited size or propulsion power (which are not quantified), the determination of the minimum safe manning level should also consider the provision of qualified officers to ensure that it is not necessary for the Master or Chief Engineer to keep regular watches by adopting a three-watch system. (PRINCIPLES OF SAFE MANNING, IMO resolution 1047(27) , 2000)</p> <p>Inspectors should review the crew list and, considering the level of operation at sea and port, assess if there are enough personnel on board to fulfil the following principles of safe manning:</p> <ul style="list-style-type: none"> > Maintain safe navigation by adequate manning of bridge throughout the passage. > Mooring, tending mooring at port and unmooring the ship safely. > Effective performance of cargo operation to ensure safe carriage of cargo during transit. > Performance of on-board functions such as drills, ship security issues, equipment maintenance. > Manning levels should be such as to ensure that the time and place available for taking rest periods are appropriate for achieving a good quality of rest. <p>If it is suspected that the manning levels are low, attention should be paid when answering the following questions where necessary (record Finding under the relevant questions):</p> <ul style="list-style-type: none"> > Navigation bridge, Q 3.8 and Q 3.9 > Moorings Q 10.7 > Engine Control Room Q 13.2, Q 13.5 	Minimum safe manning document PERSONNEL MANUAL - 2.0. MANPOWER - SECTION 5 AND 6	<input type="checkbox"/>
2.5	Do all personnel maintain rest period/work hours and are the rest hours in compliance with STCW or MLC requirements? (V)		STCW - Section A-VIII/1 Fitness for duty OJT -33 – WATCH SCHEDULE OJT 9 – REST HOURS PERSONNEL MANUAL –	<input type="checkbox"/>

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Guide to Inspection		
<p>Record a Finding if:</p> <ul style="list-style-type: none"> > There are two or more consecutive violations by any seafarer on-board in any 30 day period. > The vessel's manager has not been informed at least monthly of compliance levels on board. > The work hour records are not to ILO format - Inspector should refer to the IMO/ILO guideline "Guidelines for the Development of Tables of Seafarers' Shipboard Working Arrangements and Formats of Records of Seafarers' Hours of Work or Hours of Rest". <p>"Hours of rest" means time outside hours of work and does not include short breaks. The minimum requirement for hours of rest provided should be:</p> <ul style="list-style-type: none"> > Minimum 10 hours in any 24-hour period, which may be divided into no more than 2 periods, one of which shall be at least 6 hours in length, and no more than 14 hours between any consecutive periods; and > Minimum 77 hours in any 7-day period. <p>A record must be kept of the seafarers' daily hours of rest, the principal purpose for the record being to allow monitoring and provide documentary evidence of compliance with the minimum hours of rest requirements, and to record any deviations from the requirements.</p> <p>Musters, firefighting and lifeboat drills, and drills prescribed by national laws and regulations and by international instruments shall be conducted in a manner that minimizes the disturbance of rest periods and does not induce fatigue.</p> <p>In respect of situations when a seafarer is on call, such as when a machinery space is unattended, the seafarer shall have an adequate compensatory rest period if the normal period of rest is disturbed by callouts to work. (Article 5- Seafarers' Hours of Work and the Manning of Ships Convention, 1996 (No. 180))</p> <p>The standard format for the record of daily hours of rest should comply with the ILO Guideline of Rest.</p> <p>Shipowners may develop, or purchase, electronic systems that record the hours of rest for seafarers on their vessels and these systems should be as follows:</p> <ol style="list-style-type: none"> 1. The format must be based on the ILO guidelines. 2. The electronic records must be accessible to all seafarers be secure from unauthorized alterations after entering. 3. There must be a means for the records to be endorsed by the seafarer and the Master. 4. There must be a means for the seafarer to receive a copy of their hour of rest records. <p style="text-align: center;">(IMO/ILO guidelines for the development of tables of seafarers' shipboard working arrangements and formats of records of seafarers' hours of work or hours of rest, 1999)</p>	<p>CHAPTER 3 – CONDITION OF EMPLOYMENT - SECTION 3.1 TO 3.7</p> <p>Form 5.2.1 C – ITEM 12</p> <p>Ensure records of work/rest/overtime is recorded on daily basis by each ship staff using ISF Watchkeeper.</p> <p>Ensure Individual crew, departmental heads and master sign the rest hour form every month.</p> <p>Ensure that the records are properly filed on board. The crew shall receive a copy of the records pertaining to them. The crew should have access to the ISF software.</p> <p>Ensure the rest hour records are accurately recorded by cross-checking other documents, such as deck logbook, engine logbook, GMDSS radio logbook, drill record and oil record book, etc</p> <p>Seafarers shall be compensated with an adequate rest period if the normal period of rest is disturbed by calls , drills, unscheduled work or emergency</p>	

Section 2: Certificate and personnel management

2.6	Has the Master been provided with relevant ship handling training? (V)	<p align="center">Guide to Inspection</p> <p>A Master with less than 5 years sea time in rank must have attended a ship handling course.</p> <p>It is important that Masters and chief mates should have had relevant experience and training before assuming the duties of Master or chief mate of large ships or ships having unusual manoeuvring and handling characteristics significantly different from those in which they have recently served. Such characteristics will generally be found in ships which are of considerable deadweight or length or of special design or of high speed.</p> <p align="right">(Section B-V/a, STCW 2010)</p> <p>The Master should have attended an approved ship-handling simulator course on an installation capable of simulating the manoeuvring characteristics of such a ship as per IMO Model course 1.22.</p>	Master shall have the ship handling course certificate as per IMO model course 1.22	<input type="checkbox"/>
2.7	Have officers and ratings responsible for cargo handling on ships carrying dangerous and hazardous substances in solid form in bulk undergone formal training (v)	<p align="center">Guide to Inspection</p> <p>Guidance regarding training of officers and ratings responsible for cargo handling on ships carrying dangerous and hazardous substances in solid form in bulk.</p> <p>Training should be divided into two parts, a general section on the principles involved and a section on the application of such principles to ship operation. All training and instruction should be given by properly qualified and suitably experienced personnel and cover at least the subjects given in paragraphs 2 to 14 of section B/V b of STCW.</p> <p>Shipboard application: Class 4.1 - Flammable solids Class 4.2 - Substances liable to spontaneous combustion Class 4.3 - Substances which, in contact with water, emit flammable gases Class 5.1 - Oxidizing substances Class 6.1 - Toxic substances Class 7 – Radioactive Class 8 - Corrosives Class 9 - Miscellaneous dangerous substances and articles</p> <p>RightShip recommends that all officers and ratings responsible for the carriage and care of dangerous and hazardous substances in solid form in bulk, including Material Hazardous Only in Bulk (MHB), have received appropriate training to comply with the STCW Convention and Code's 2010 Manila Amendments.</p>	<p>Officers and ratings responsible for the carriage and care of dangerous and hazardous substances in solid form in bulk, including Material Hazardous Only in Bulk (MHB), have received appropriate training to comply with the STCW Convention and Code's 2010 Manila Amendments.</p> <p>All officers and crew to undergo KARCO training on dangerous goods</p>	<input type="checkbox"/>
2.8	Have officers and ratings responsible for cargo handling on ships carrying dangerous and hazardous substances in packaged form undergone formal training (v)	<p align="center">Guide to Inspection</p> <p>This question should be answered N/A if the vessel isn't a general cargo ship, a roll on roll off (Ro-Ro) ship, or a non-cellular ship fitted for the carriage of containers.</p> <p>Training should be divided into two parts, a general section on the principles involved and a section on the application of such principles to ship operation. All training and instruction should be given by properly qualified and suitably experienced personnel and cover at least the subjects given in paragraphs 2 to 19 of section B-V/c of STCW.</p> <p align="right">(Section B-V/c, STCW 2010)</p> <p>RightShip recommends that all officers and ratings responsible for the carriage and care of dangerous and hazardous substances in packaged form undertake appropriate training to ensure compliance with the STCW Convention and Code's 2010 Manila Amendments.</p>	NA (WE DO NOT LOAD DANGEROUS CARGO IN PACKAGED FORM)	<input type="checkbox"/>

Section 2: Certificate and personnel management

2.9	Has an SMS policy and procedure been established to enforce the STCW Convention and Code requirements for the purpose of preventing drug and alcohol abuse? (V & M)	<p style="text-align: center;">Guide to Inspection</p> <p>Record a Finding if the testing requirements are not included in the company's drug and alcohol policy or if the vessel has failed to conduct the tests in line with the company's policy.</p> <p>Companies should consider the implementation of a clearly written policy of drug and alcohol abuse prevention, including prohibition to consume alcohol within four hours prior to serving as a member of a watch either by inclusion in the company's quality-management system or by means of providing adequate information and education to the seafarers.</p> <p>Those involved in establishing drug and alcohol abuse-prevention programmes should take into account the guidance contained in the ILO publication Drug and Alcohol Prevention Programmes in the Maritime Industry (A Manual for Planners), as may be amended. (Section B-VIII/1, Guidance regarding fitness for duty, STCW 2010)</p> <p>RightShip urges vessel managers to adopt a clear written policy prohibiting seafarers from abusing drugs or alcohol. To carry out their policy, vessel managers should establish codes of conduct and controls aimed at preventing seafarers from engaging in activities while impaired by drugs or alcohol. It is recommended that seafarers be subjected to random drug and alcohol testing and screening, as well as routine medical examinations. These tests should include an unannounced alcohol test initiated by the vessel's manager, routine on-board tests conducted by the Master or Master nominees, and an unannounced drug test conducted by an independent agency. The testing procedure should detail the manner in which these tests are to be performed. The frequency with which these tests are administered should be sufficient to deter such abuse.</p> <p>If alcohol consumption is permitted on board, the policy should regulate the distribution, consumption, and administration of alcohol on board.</p>	<p>Company drug and alcohol policy</p> <p>Unannounced shore tests</p> <p>Pre-joining medical tests</p> <p>Monthly onboard test by Master – FORM 3.2.15</p> <p>PERSONNEL MANUAL - 7.0. Drug Alcohol Policy</p> <p>Unannounced tests for Master carried out by CEO.</p> <p>Records to be filed in sharepoint.</p>	<input type="checkbox"/>
2.10	Are the limits of blood and breath alcohol contents in the drug and alcohol policy equal to, or less than the STCW mandatory alcohol limit? (V&M)	<p style="text-align: center;">Guide to Inspection</p> <p>Each Administration shall establish, for the purpose of preventing alcohol abuse, a limit of not greater than 0.05% blood alcohol concentration (BAC) or 0.25 mg/l alcohol in the breath or a quantity of alcohol leading to such alcohol concentration for masters, officers and other seafarers while performing designated safety, security, and marine environmental duties.</p> <p style="text-align: center;">(Section B-VIII/1, Guidance regarding fitness for duty, STCW 2010)</p>	<p>Company drug and alcohol policy</p> <p>PERSONNEL MANUAL - 7.0. Drug Alcohol Policy</p> <p>Company requirements 0.04% BAC</p> <p>Ensure alcohol meter is operational and vessel has spare sensor onboard</p>	<input type="checkbox"/>
2.11	When was the date of the last recorded unannounced on-board group alcohol test? (M) Record the date		<p>Monthly onboard test by Master - – FORM 3.2.15</p> <p>Unannounced tests for Master carried out by CEO</p> <p>PERSONNEL MANUAL - 7.0. Drug Alcohol Policy</p> <p>Records to be filed in sharepoint.</p>	<input type="checkbox"/>

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2.12	When was the date of the last unannounced drug test undertaken by an external agency? (M) Record the date		Unannounced shore tests (Company will decide on the vessel on random basis) PERSONNEL MANUAL - 7.0. Drug Alcohol Policy	<input type="checkbox"/>
2.13	Is the officer matrix accurately completed and does it reflect the information on officers and engineers on board the vessel at the time of inspection? (V)	<p style="text-align: center;">Guide to Inspection</p> <p>Inspector must not record a Finding when crew change(s) took place within seven days before the date of the inspection.</p> <p>The vessel's manager shall provide sufficient overlap for Master / Chief Officer and Chief Engineer / Second Engineer to ensure that they are familiar with the vessel's operation before taking charge, and both senior officers and senior engineers are not changed at the same time.</p> <p>The vessel's manager is responsible to maintain up-to-date records relating to the officers and engineers on board the vessel at the time of inspection. The inspector should have a copy of the updated officer matrix and check the tour on board, qualifications and experience of officers and engineers against the crew list and seaman books. The actual details of Master, Chief Engineer, Chief Officer and Second Engineer / First Engineer must be checked against the data contained in the matrix and a Finding shall be recorded for inaccurate updates.</p> <p>Random checks must be made of the actual records applicable to junior officers and junior engineers.</p> <p>A seafarer may hold a Certificate of Receipt of Application (CRA) and a valid national STCW Certificate, for a period not exceeding three (3) months while an application for the STCW Endorsement Certificate is being processed. The inspector shall check the validity of CRAs.</p>	<p>PERSONNEL MANUAL - 4.0. PROCEDURE FOR CREW SIGNING ON AND OFF VESSELS -SECTION 7</p> <p>Obtain officer matrix from crewing department (prior RIGHT SHIP inspection)</p> <p>Master to crosscheck the contents of the matrix</p> <p>Ensure COE /ROA are valid</p>	<input type="checkbox"/>

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<p>2.14</p>	<p>If ECDIS was fitted on board, have the Master and Deck Officers completed Generic training and type-specific familiarisation? (V)</p>	<p style="text-align: center;">Guide to Inspection</p> <p>Inspector to record how the familiarisation training was carried out. ECDIS familiarisation should be provided to all on-signing deck officers before they take an independent navigation watch, and each time they join any vessel. (Recommendations on Usage of ECDIS and Preventing Incident, 2020) The STCW Code contains requirements for approved training on ECDIS. In cases where the approved training has not been completed, a limitation shall be included on the certificate and endorsements issued to the seafarer.</p> <p>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.</p> <p>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.</p> <p>In accordance with regulation, I/14, companies are responsible for ensuring that seafarers employed on their ships are familiarized with the installed equipment, including ECDIS. It is agreed that seafarers required to have training in the use of ECDIS:</p> <ol style="list-style-type: none"> 1. Should not be required to provide documentation of training in ECDIS that is specific to the installed equipment; and 2. Are required to be familiarised with the ECDIS equipment installed on board. <p style="text-align: right;">(STCW.7/Circ.24/Rev.1, 2017)</p> <p>Deck officers who hold a Certificate of Competency with validity over 01 January 2017, in accordance to regulations II/1 and II/2 of the annex to the STCW-Convention and without an ECDIS limitation, fulfil the requirement of generic ECDIS-training.</p> <p>The vessel's manager can consider a wide variety of options for achieving familiarisation both on-board and ashore. These include but are not limited to:</p> <ul style="list-style-type: none"> > Shore based manufacturer training followed by installation-specific training. > Familiarisation on-board. > Independent training on specific systems followed by installation specific familiarisation. > Computer Based Training (CBT), followed by installation-specific familiarisation on-board. > Internet / Intranet Based Training (eLearning) followed by installation specific Familiarisation on-board. > On-board training by appropriately trained crew or training personnel. > Manufacturer provided training mode on the ECDIS, followed by installation-specific familiarisation on-board. > Company bridge procedures and manuals. <p>Regardless of the method(s) used, it is essential that all watch keeping officers are competent in the use of the on-board ECDIS prior to taking charge of a navigational watch and remain so thereafter. (Industry Recommendations for ECDIS Familiarisation, 2012)</p>	<p>STCW certificate shall specify ecdis training</p> <p>Company ECDIS familiarization form – NAV B4 – Completed prior taking over first watch</p> <p>CHARTWORLD / CBT to be completed by all deck officers including MASTER</p> <p>All deck officers shall be competent in the use of onboard ECDIS.</p>	<p><input type="checkbox"/></p>
<p>2.15</p>	<p>Does the ship's manager provide value-added training courses beyond the STCW to its on-board engineers? (V)</p>	<p style="text-align: center;">Guide to Inspection</p> <p>Record any recent additional training conducted. he vessel's management is responsible for identifying additional training needs, whether they apply to a specific individual or vessel or to the entire fleet. The training technique may involve classroom training or computer-based training. However, a course's content shall address and comply to industry requirements. Trainings listed in section B of the STCW, Bridge Resource Management, Engine Room Resource Management, operation and maintenance of engine-specific types, injectors, exhaust valves, electronic fuel valves, electronic governors, dual fuel systems, fuel pump maintenance, boiler automation, plan maintenance system, and hydraulic machinery are examples of additional training.</p>	<p>Electronic engine training</p> <p>Makers technical bulletins..</p> <p>On MAN engines we have remote monitoring by MAN</p>	<p><input type="checkbox"/></p>

ENS

Emergency Navigation System

Quick Reference Guide – v. 1.4, June 2023

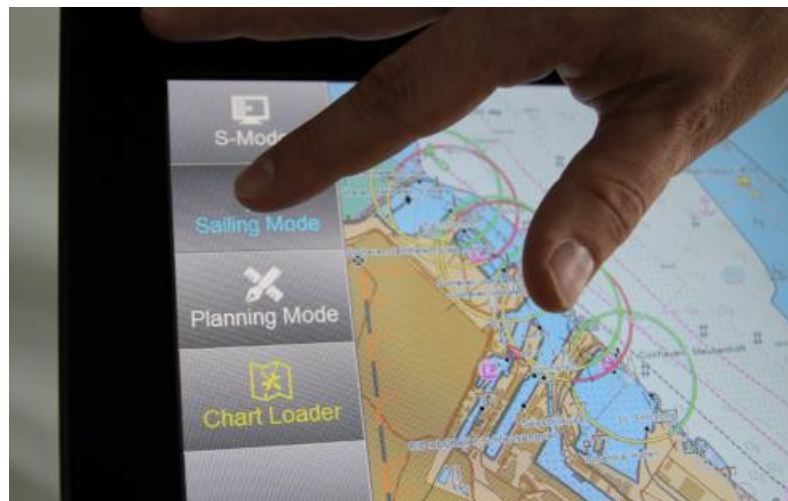
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Purpose of ChartWorld ENS

Emergency Navigation System (ENS) is a tertiary risk-reduction tool that offers a smarter preventive solution for paperless-navigation vessels. ENS core value lies in its software which is the same as ChartWorld Type-Approved ECDIS and can be installed on any Windows 7/8/10 PC. ENS offers the following benefits to the navigating officer:

- Displays Official ENC's the same as an ECDIS
- Able to receive GPS/GYRO/AIS signals from shipboard equipment
- Backup solution under the unlikely event that both ECDIS are non-operational
- Do not have to switch back to paper chart during emergency
- Update charts in a single click and shares the same inventory as the ECDIS
- 100% independent and applicable on high mobility hardware
- Most powerful route-check function software (CATZOC calculation)



The purpose of the service is to provide an easier and reliable backup solution than keeping paper inventory as a paperless vessel.

Hardware & Software

ENS is highly customisable and could come in various kinds of setup. The following section will describe the function of the default hardware set and software provided by ChartWorld:

Hardware:

- **ENS PC Tablet (ChartWorld-configured – closed system)**

ChartWorld will install and configure the ENS and deliver onboard. The default delivery set is a MS Surface Pro with keyboard type cover. The ENS is configured as a closed system to ensure safety and reliability of operations when needed.



There are occasions where an existing PC onboard will be used to install ENS, ChartWorld will provide instruction and setup files in eChart DVD 2.

- **AIS WiFi Pilot Plug Adaptor (PPA)**

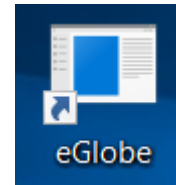
Inserted into the AIS transponder to transmit GPS/GYRO/AIS data from the shipboard equipment to the ENS PC. The supplied unit has also an independent GPS receiver built-in And can therefore also act as a mobile receiver, providing the ships Position, CoG and SoG via Wifi to the ENS tablet.



Software:

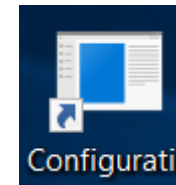
- **eGlobe**

ENS software where the user uses the view charts and navigate.



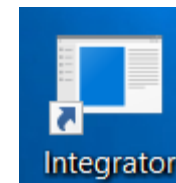
- **ConfigurationUtility**

Update vessel particulars and sensor settings.



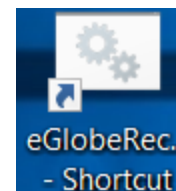
- **Integrator**

Open other functions, File Manager to import/export route and other files



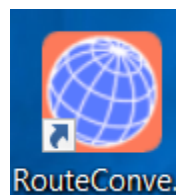
- **eGlobeReconnect**

Reconnect GPS/GYRO/AIS sensors when there is no incoming data from APP or GPS mouse.



- **RouteConverter**

Convert route files from other ECDIS brands into eGlobe (ENS) route format. The crew does not have to draw the route out manually.



Onboard Procedures

Scenarios of usage

ENS as part of the risk management tool will provide actionable ENC information for navigators during emergency such as:

- Irregular ECDIS performance e.g. Power/Sensor lost
- Total power failure on the bridge
- ENC for lifeboat in the unlikely event of abandoning ship

Other beneficial usages:

- Voyage monitoring (within 80m from the bridge; depending on sheltering of steel walls and decks)
- Pilotage tool for narrow/congest water (docking aid)
- Route check with state-of-the-art route safety functions (CATZOC & CIO+)

ENS can tackle different scenarios with additional hardware, it is up to the shipping company to decide which setup combination is best for the ship/fleet.

- ENS tablet: mobility and independent power source from the bridge in case of total power failure
- AIS pilot plug: GPS/GYRO/AIS data source from shipboard equipment in case of irregular ECDIS performance

How to set-up and use ENS

Connecting to ships AIS

1. Please unpack the ENS (Microsoft Surface) tablet and the AIS PILOT PLUG adapter.



2. Please have all cables from the Pilot Plug Adapter ready and connect to the onboard AIS Pilot Plug socket and AC power socket.



Note: The power cable is only required for charging.

3. You first need to disable the KONTEK (internal) GPS Position transmission, to transmit Ships AIS/GPS Position. Please do as follows:

3.1. Press the M button for 3 seconds on the Pilot Plug



3.2. Press M Once to activate the Menu and Press the M and Power button to toggle between Menus



3.3. To Access the NAVI Page:

- a. Press M once to highlight NAVI
- b. Press Power to Select NAVI



3.4. To Power Off GPS:

- 3.4.1. Press the Power Button to Select GPS
- 3.4.2. Press the M Button Once to highlight the Off option
- 3.4.3. Press the Power Button to select the Off Option
- 3.4.4. Exit the Menu by Pressing M Button to highlight the Exit option and press the Power Button



Turning off GPS on Pilot Plug

Once the steps above is completed, there will be no Green GPS reading on the Pilot Plug.



4. Connecting the Pilot Plug to AIS

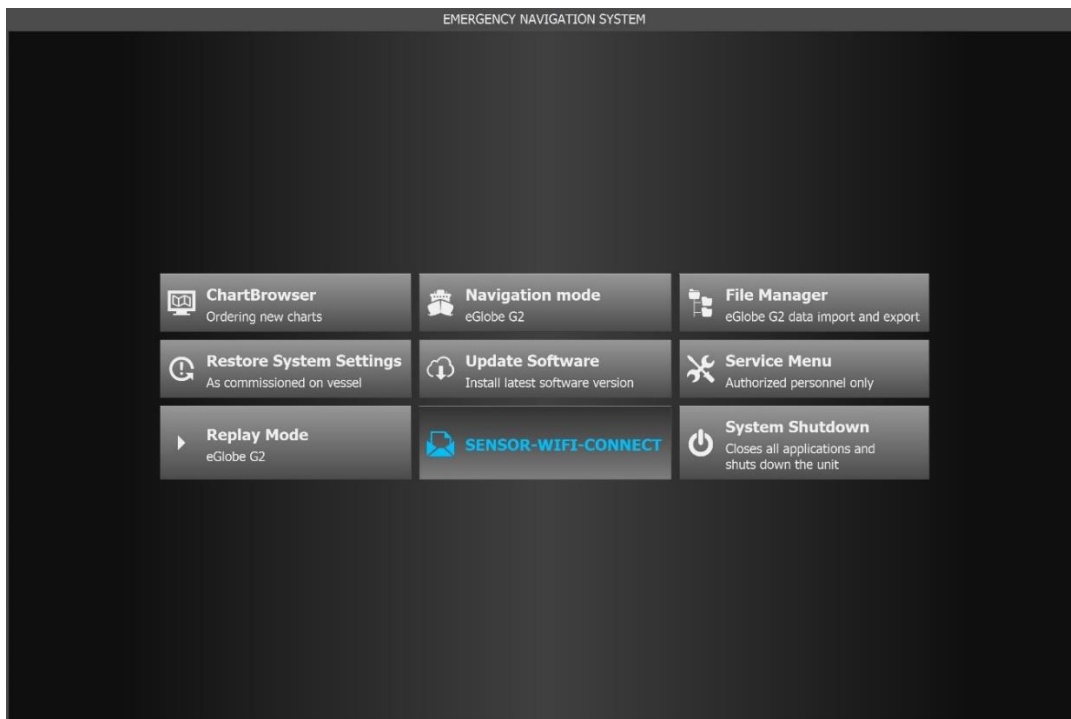
4.1. Plug in the cable to the APP Port on the Pilot Plug.



5. Connecting Pilot Plug to ENS

5.1. Power On ENS.

5.2. On Integrator Mode Select Sensor-WIFI-Connect and wait for the icon to turn white.



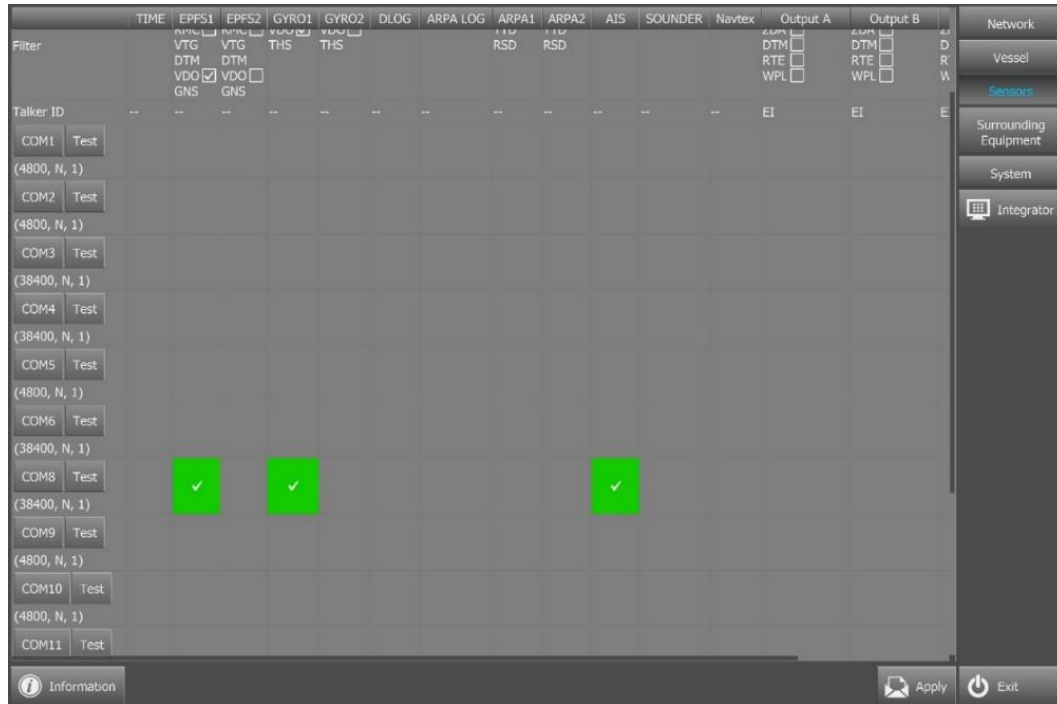
5.3. Once the step above is completed, check the Pilot Plug to ensure the 2 icons are highlighted Green.



6. Proceed to then Select the Service Menu > Password: admincw



7. In the Service Menu Select Sensor Tab and Ensure that all 3 boxes are highlighted Green.



7.1. If all three boxes are green, then exit service menu, skip 7.2 and continue setting up the ENS from step 8.

7.2. If one, two, or all of these three boxes are orange, kindly take a photo of the below and send it to us:

- Sensor Tab page
- Pilot Plug Display Screen
- Navigation Mode of the ENS

Note: please ignore all other boxes even if they are selected and are orange.

7.2.1. Shut down both ENS and pilot plug adapter.

7.2.2. At the pilot plug adapter press and hold the power button for 3 seconds to switch it on.



7.2.3. Switch on the MS Surface tablet and wait until you see the ENS-Integrator screen.

Note: Please wait 5 seconds until you proceed with next step.



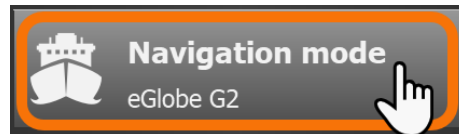
7.2.4. Click on “WIFI-CONNECT” and wait until the button changes from blue colour, back to white colour.



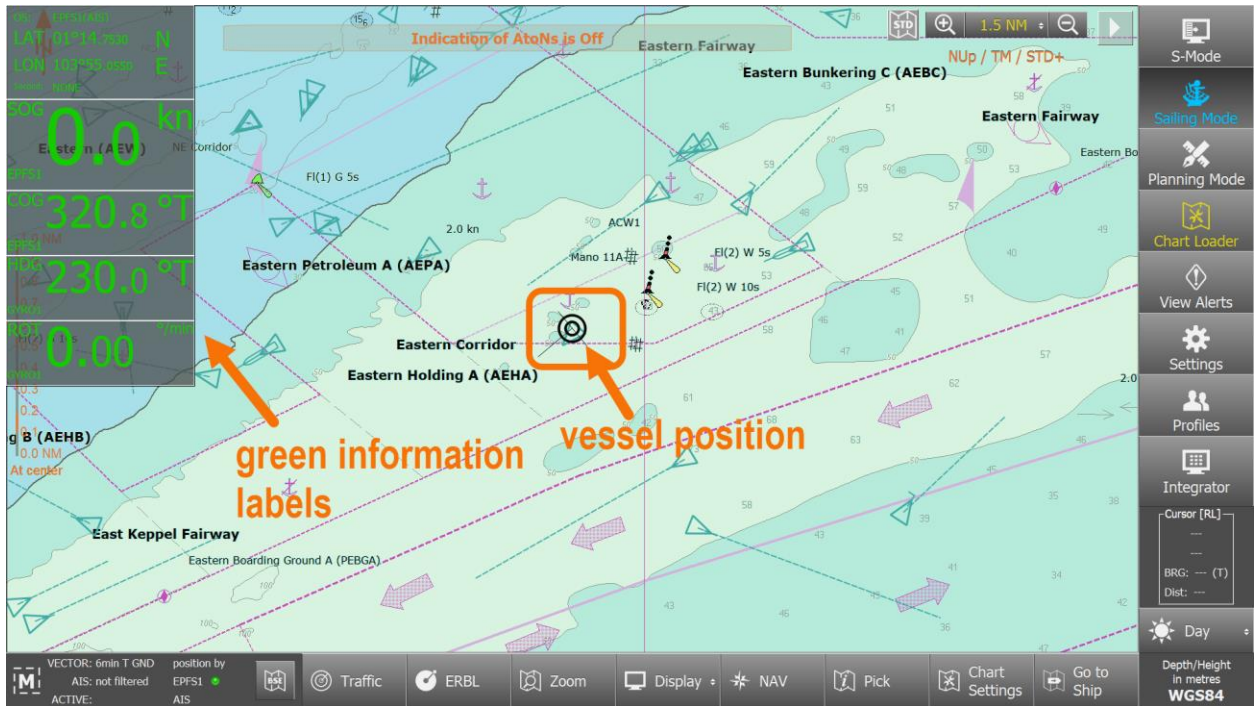
7.2.5. Make sure that these two icons are coloured green and that there is sufficient battery capacity.



8. Wait 5 seconds and click on "Navigation mode".



Once the Navigation Mode is completely loaded, **green** sensor inputs should be shown.



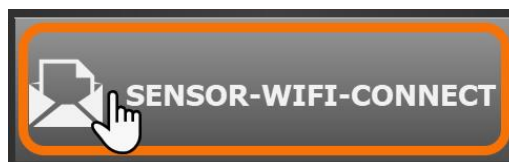
9. In case there is no sensor input please proceed with step 10



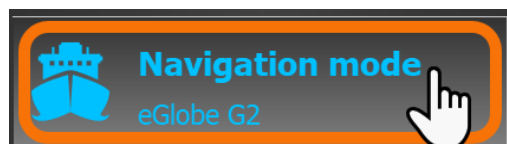
10. Click on the button "Integrator"



11. Click on the button "WIFI-CONNECT" and wait until the button changes from blue to white colour.



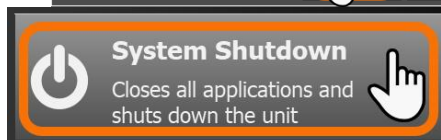
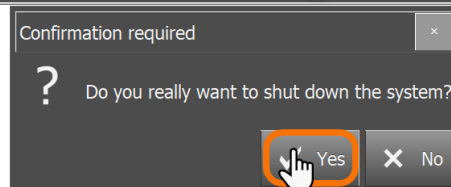
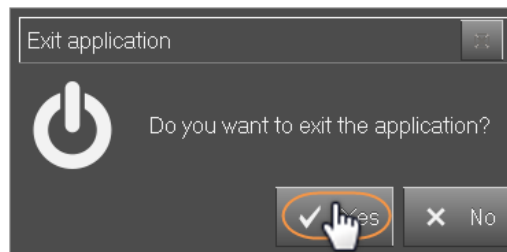
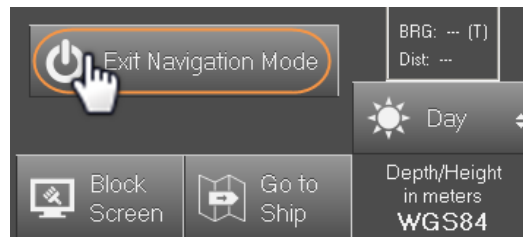
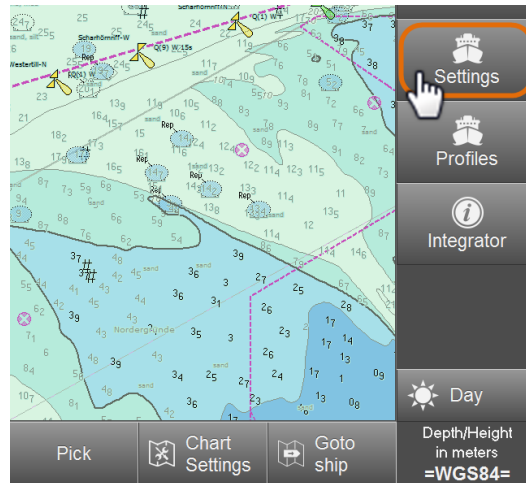
12. Click on "Navigation Mode"



Now all should work.

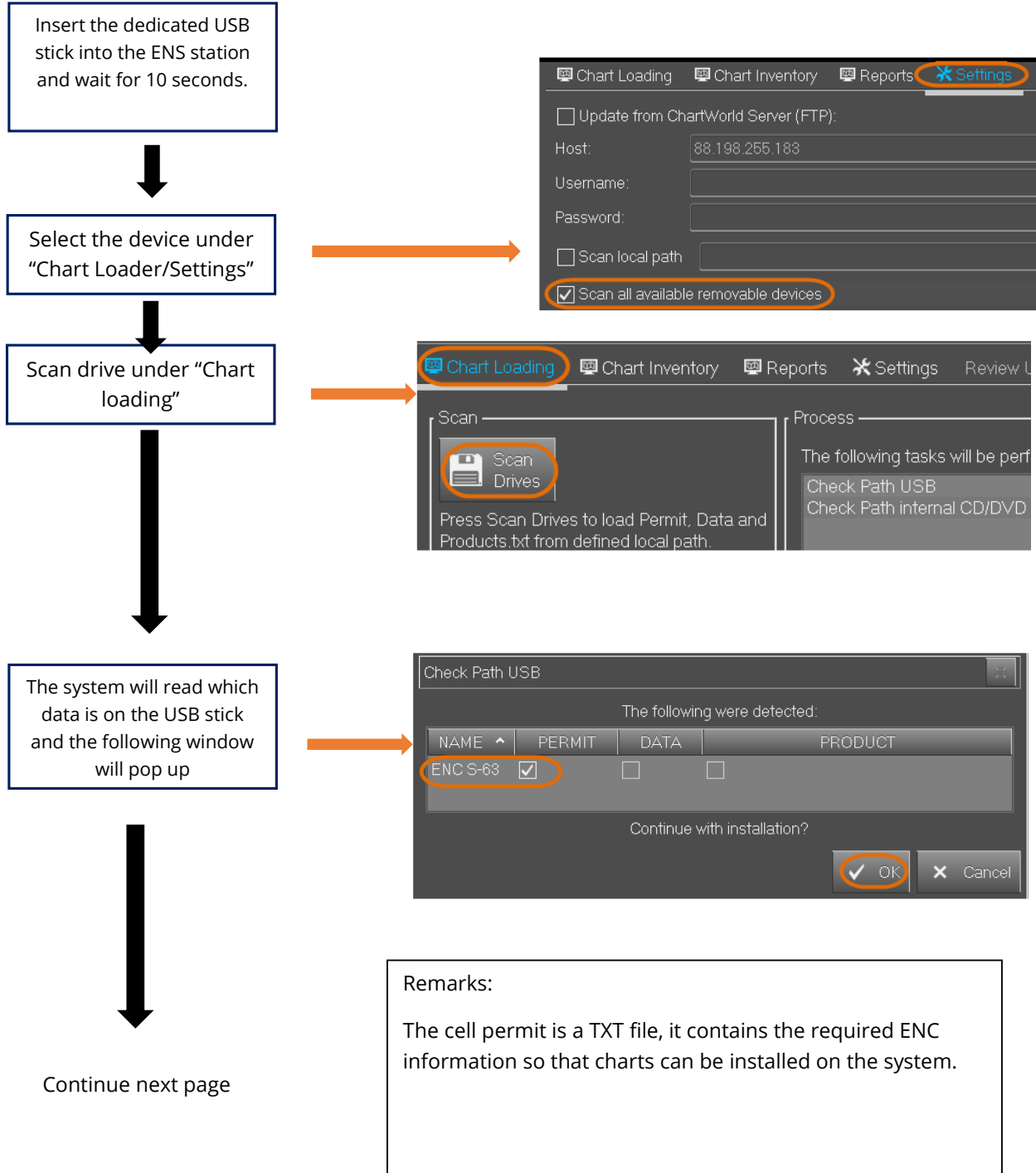
Switch off the ENS

To switch off the tablet after operation, please follow the next pictures



The tablet will shut down and remains off.

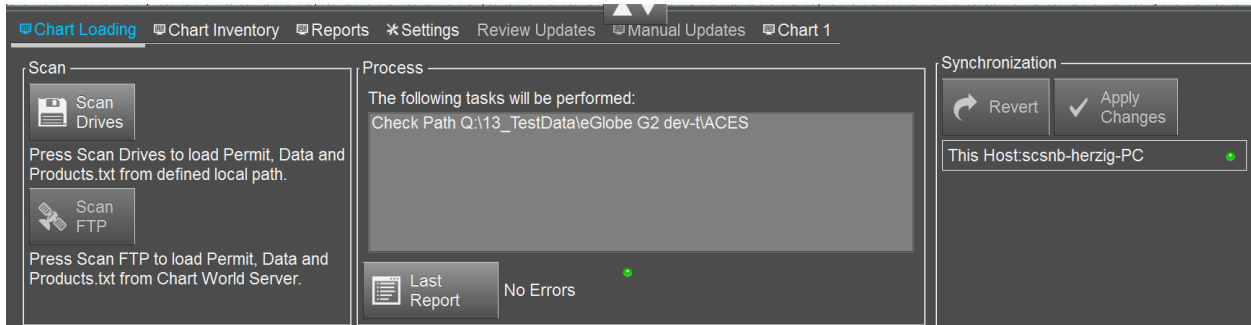
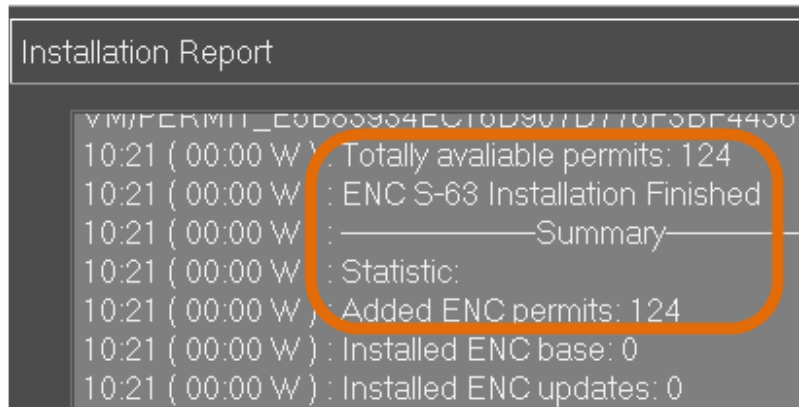
Installing ENC permits



When finished, press "Last Report" and check that the installation is done correctly.



The "No Errors" should be showing a green light.

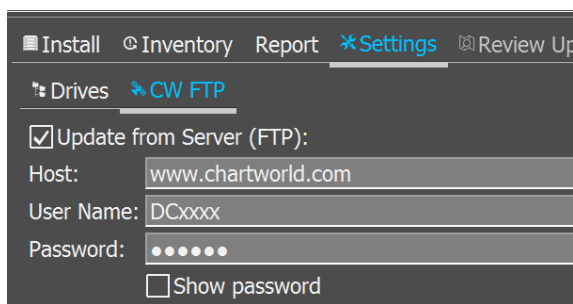


How to install Charts from ftp

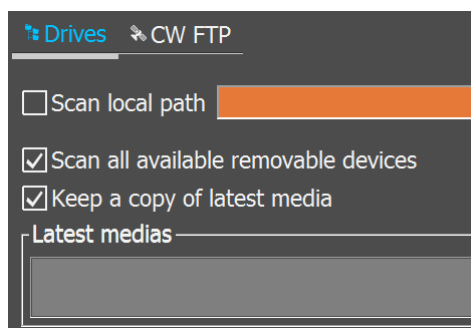
1. Run ENS *Navigation Mode* and select the *Chart Loader* task



2. Open the settings tab and insert the user name and password to access the FTP



3. Ensure that the setting `Keep a copy of latest media` and `Scan all available removable devices` are selected.

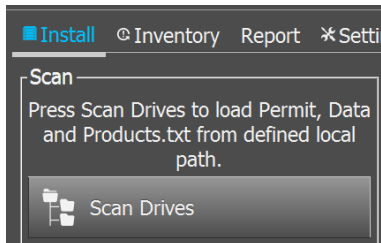


To keep a copy of the latest base media saves the content of the media locally so that new chart installations do not require scanning the base media first, before inserting the updates.

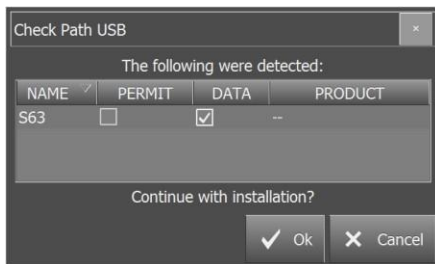
Initial settings are done. First base media, part of initial delivery, has to be installed.

How to install Charts from Base Media

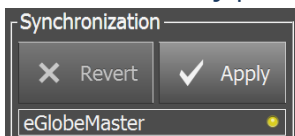
1. Connect your base media (either USB or DVD) to the ENS and press scan drive.



2. Once the installation was sighted the content will be shown and a confirmation to proceed is required



3. Press Apply once the button gets enabled (which means the installation was successfully performed).

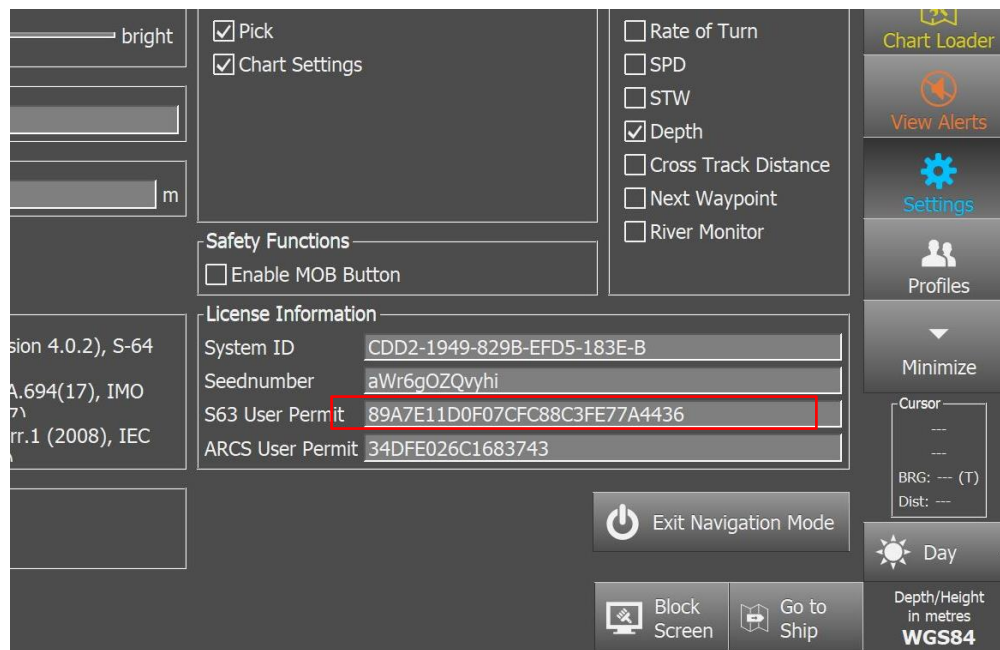


Installation process of base media finished.

Weekly ENC Update

The ENS chart folio should be updated at the same frequency as your ECDIS onboard in a weekly manner to ensure its readiness and availability in case of emergencies.

The software used in the ENS is a type-approved ECDIS software, therefore it can read the same ENC data as the “main” ECDIS. The vessel needs to provide the User Permit Number of the ENS to the chart supplier to obtain the permit.

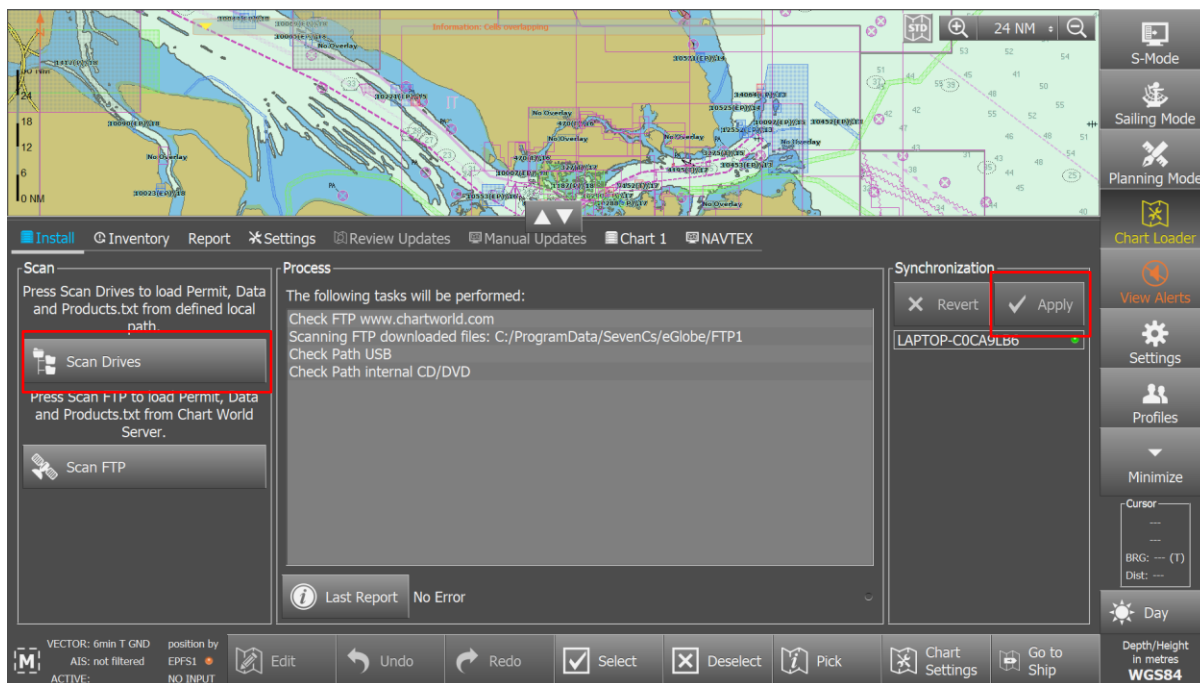


The User Permit can be found in the eGlobe Settings page.

To ensure the chart folio is always up-to-date, the vessel is required to load:

- Latest ENC permit
- New ENC data from newly-ordered charts
- Weekly ENC update

Save all the above into an USB drive and load them into the ENS PC.



Go to eGlobe Chart Loader > Install and click on Scan Drive.
eGlobe will scan all external drives and install permit/data detected. Click Apply to complete the installation.

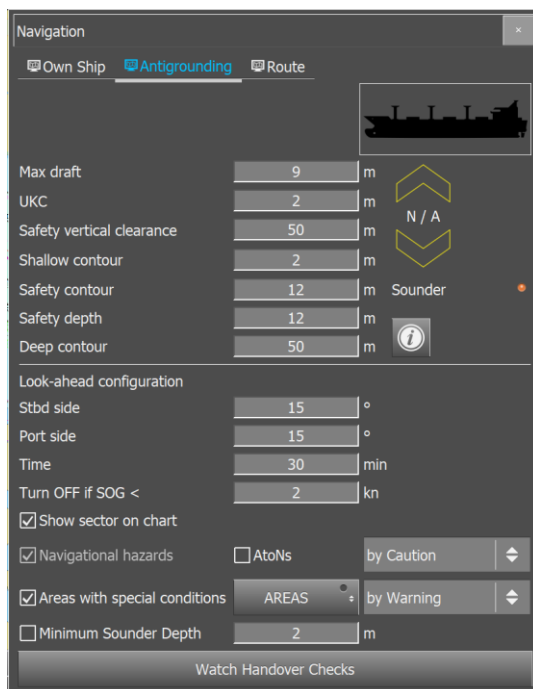
Route & Ship's Parameter Update

The route on ENS should be maintained the same as the ECDIS to ensure its readiness. Under the scenario whereby the destination and current location has significant distance, the crew will have to construct a new route to the nearest port of refuge on the ENS. ENS comes with route converter software which can convert some route format into ENS (.rte) format.

The following are the convertible/readable formats:

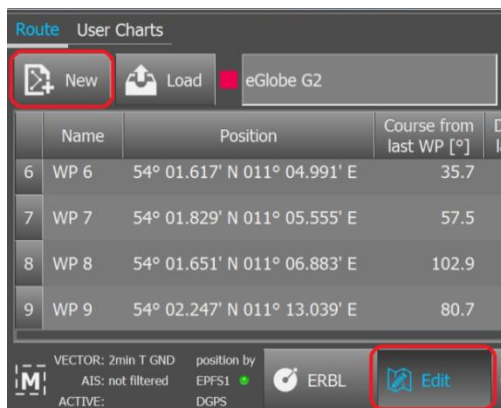
- eGlobe Route Format (*.rte)
- Standard Route Exchange Format (*.rtz)
- XML Paper Specification (*.xps)
- S-57 (*.000)
- Sperry Vision Master XML (*.route)
- Furuno Text Format (*.txt)
- StormGeo BonVoyageSystem Format (*.bvs)
- Raytheon NMEA Format (*.nmea)
- Raytheon Route Format (*.route)
- MeteoGroup SPOS Format (*.spos)

Parameters of the ship needs to be updated before leaving port in NAV tab.

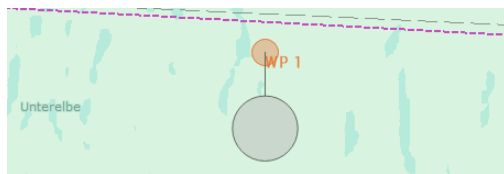


How to Plan a Route

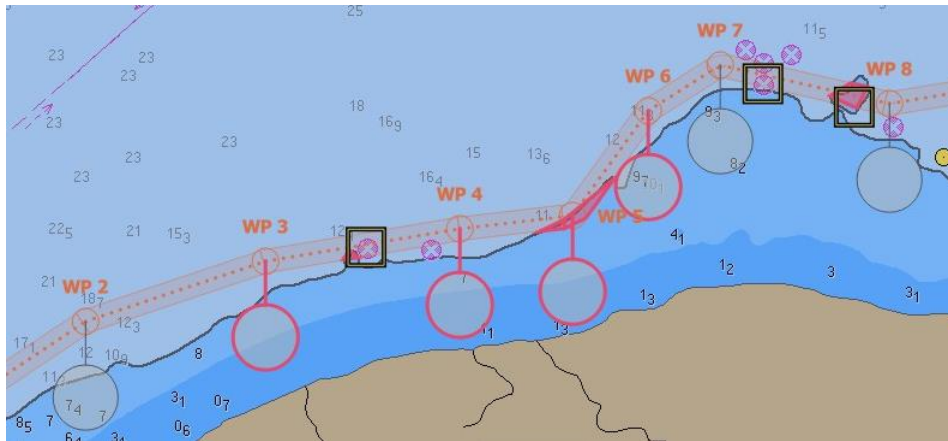
Go to “Planning” mode and click on *New* and the *Edit* button in the Toolbar is automatically activated. Enter an adequate name for the route instead of the default *New Route*.



Move the screen to the area where the first waypoint shall be set. Tap (in case of touchscreen) or click left with keyboard or mouse at the desired position, and the first waypoint will be displayed. It is possible to use the handle to precisely set the waypoint position, especially if touchscreen is used.



Adjust the screen area if necessary and touch the screen at the position of the next waypoint. This will insert the next waypoint and create the route leg from the first waypoint.



Should the automatic *Check* function detect any dangers the respective handle will be highlighted reddish (i.e. risk of grounding), and dangerous objects will be highlighted. So it is possible to have a closer look. If any dangers occur it is possible to change the location of the waypoint by moving the handle and/or changing the safety contour for route checking. Once this is done, the changed leg will be automatically checked again.

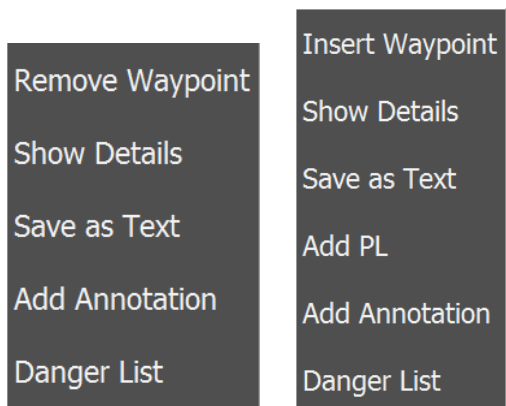
The check will only be initialized once the waypoint is left on the screen so continuous moving along the chart will not continuously check the safety of the possible leg.

If no dangers are found the handle will not be highlighted reddish.

It is recommended to save the route after the session is finished otherwise the planned route will not be synchronized with the potential other stations inside the network (e.g. from Planning Station to Master Station).

Extended Information on a Waypoint

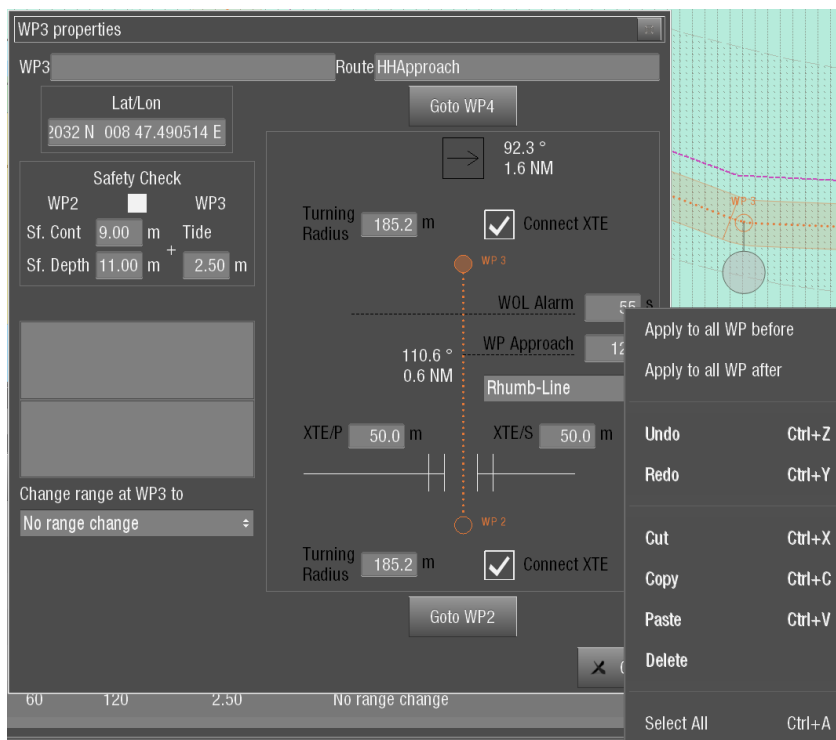
It is possible to have extended information on a waypoint / leg displayed. This is done via the context menu of the respective handle / legline:



Context menu of waypoint (left) and legline (right)



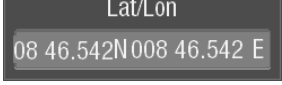

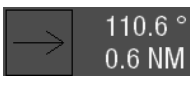


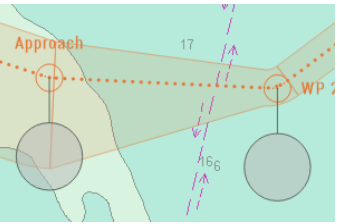


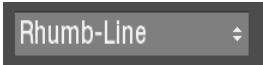
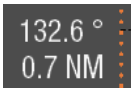

Remove Waypoint removes the selected waypoint.


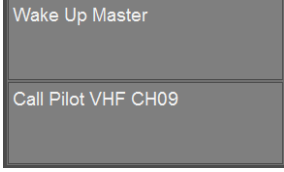
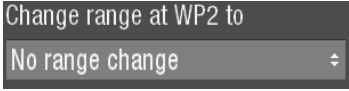

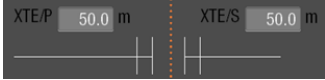
Show Details opens an additional window displaying the properties of the respective waypoint:



Thus the user has quick access to all properties and parameters of the waypoint / leg:

Parameter	Description	Note
-----------	-------------	------

	Waypoint number and optional name.	Number is for display only. Editable.
	Route name.	Display only.
	Latitude / Longitude of the WP.	Editable.
	Safety check for leg and parameters used for route safety check. Tide: expected (planned) tidal level.	Only Tide level is editable.
	Indication of the course and distance for the next route leg.	Display only.
	Turning radius at waypoint.	Editable.
	Connect XTD allows to have a non-parallel XTD limit for a particular leg by connecting to the limit of next leg. The smaller value of two will be used.	
	Advanced time for WOL approach alert.	Editable.
	Advanced time for WP approach alert.	Editable.
	Type of leg. Rhumb Line or Great Circle.	Editable.
	Indication of course and distance for the current route leg.	Display only.
	Cross track limit on port side.	Editable.

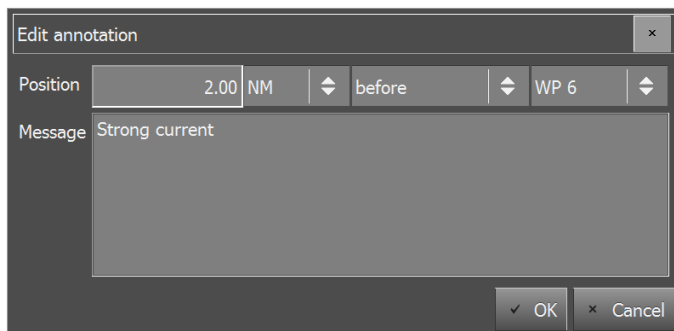
	Cross track limit on starboard side	Editable.
	Entry of notes 1 and 2.	Editable.
	Selection of an automatic range change at the waypoint.	Editable.
	Jump to next or previous waypoint.	
	View the selected XTD for port and starboard.	This can be adjusted by moving the white indicators.

It is possible to open a context menu in each editable field. Besides standard functions (e.g. copy, paste and delete) this menu also offers to apply the same value to all waypoints/legs before or after (except WP name, notes and tidal level).

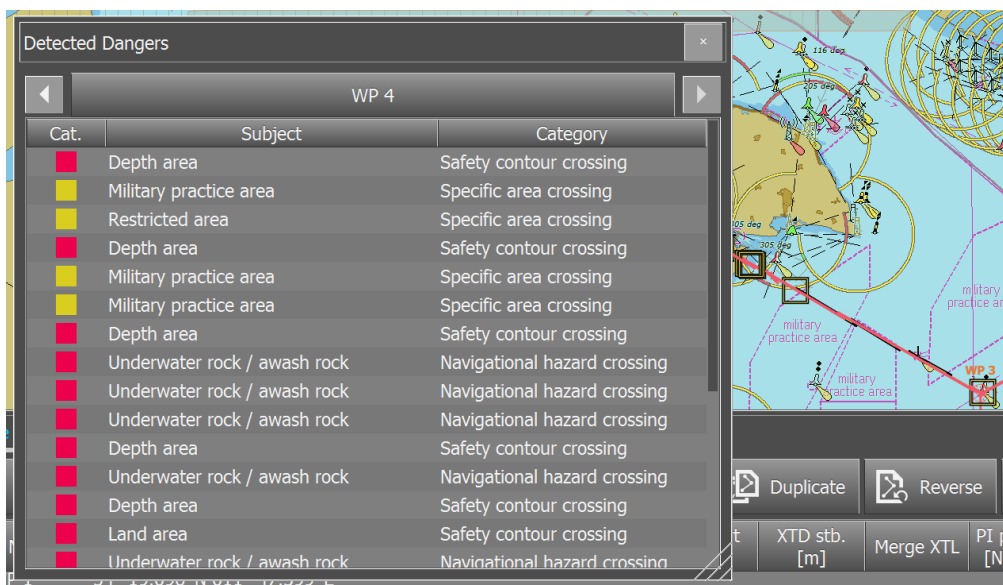
Save as text offers to create a text file document of the currently loaded route with the current state. This function saves a description of the selected route as text (.txt) file. This file can then be found in the [Fehler! Verweisquelle konnte nicht gefunden werden.](#) on the tab *Routes TXT*. It can be exported and opened with any text editor.

Add PL offers to set [Fehler! Verweisquelle konnte nicht gefunden werden.](#) which are used for radar navigation.

Add Annotation opens a window to enter additional information on the respective route/waypoint.



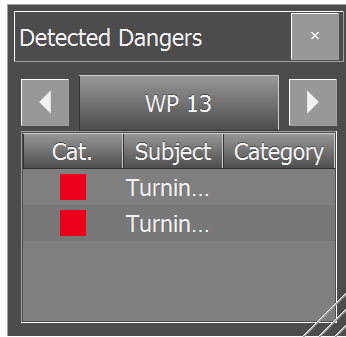
Danger List opens a dialogue listing detected dangers in a table enabling the user to easily centre single dangers.



At an early planning stage a route probably contains numerous dangers. When it comes to fine tuning the officer can open the danger list offering to jump from detected danger to detected danger. Clicking on one entry will centre the view on that dangerous object.

The *Category* colour visualizes the nature of the respective danger (e.g. yellow for area, red for turning radius, reddish for dangers).

The list entries are sorted `chronologically`, i.e. the first danger detected from WP1-WPx is listed first.



With the arrow buttons it is possible to jump to the previous / next leg line.

The lower right part of the detected danger dialog allows resizing the window.

202424: Enclosed space claims one victim but spares two others

29 APR 2024

MARS

As edited from TSIB (Singapore) report TIB/MAI/CAS.122

A bulk carrier loaded with a cargo of coal was at anchor. Deck crew were tasked with greasing the dog handles of the hold access booby hatches. Some of the handles were rusted shut and needed to be disassembled before they could be greased.

Four crew members were working to free the dog handles at one of the booby hatches. The booby hatch was open while they were doing this, and a disassembled dog handle fell down the hatch. One man climbed down to retrieve it. As he climbed back up with the retrieved dog handle, he lost consciousness due to a lack of oxygen, fell and landed on the coal cargo about 3.5 metres below.

The alarm was immediately raised and the crew mobilised to rescue the victim. An officer arrived at the booby hatch with an Emergency Escape Breathing Device (EEBD) hood and entered the cargo hold through the booby hatch ladder. Meanwhile two air hoses were being connected to the air supply in an attempt to supply air to the hold. The officer that had entered the booby hatch with the EEBD soon came out, saying that it was difficult to breathe and hot in the cargo hold.

The chief cook, of his own accord, then took affairs into his own hands. He grabbed the two air hoses, a safety harness and ropes and descended into the hold to attempt a rescue. Within five minutes, the cook had managed to secure the safety harness below

the arms of the victim and the crew on the main deck were able to pull him out; the cook exited the hold soon after. The victim was not breathing and there was no heartbeat or pulse. CPR was performed on the victim and he was evacuated ashore but to no avail – he was declared deceased.



Booby hatch



Lessons learned

- In an emergency rescue, the atmosphere of an enclosed space should always be considered unsafe unless confirmed otherwise.
- An EEBD should never be used to rescue a victim in an enclosed space. This equipment is only for escaping from a compartment that has a hazardous

atmosphere and should not be used for entering oxygen deficient voids or tanks on board ships.

- Many enclosed space emergencies have claimed extra victims; persons attempting to rescue the initial victim have themselves succumbed to the lack of oxygen in the course of improvised and poorly executed rescue actions. In this case, the cook and the officer with the EEBD were just 'lucky'.
- Vessel leaders must take charge in situations such as this accident. The officer should never have entered the hold with only an EEBD and the cook should have been immediately stopped from entering the hold.
- Although enclosed space rescue exercises are now mandatory on vessels, the 'elephant in the room' – the problem that is not discussed – remains the lack of standardised and comprehensive training for crew (how can you practise what you don't know how to do?) and the lack of mandatory rescue equipment that should be kept on board. This paradox was raised in a Seaways article of June 2021 and can be accessed [here](#)
- Another 'elephant in the room' is the unwritten understanding that, if the atmosphere is not breathable, an enclosed space rescue will be accomplished with firefighting breathing apparatus (BA) equipment. Although better than nothing, arguably, this equipment is very bulky and could hinder the rescue or otherwise be counterproductive. Slimline rescue BA equipment is available in other industries, but to date there is no requirement for its use in the marine industry.
- Another enclosed space rescue attempt gone wrong can be found at [MARS202124](#).

[← Return to listing](#)

The Nautical Institute

200B Lambeth Road, London, SE1 7JY

T:+44 (0)20 7928 1351 F:+44(0)20 7401 2817

E: sec@nautinst.org W: www.nautinst.org

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