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| **03.01** | **VOYAGE PLANNING** |

**03.01.01 PURPOSE**

The purpose of this chapter is to provide shipboard personnel with procedures related to bridge procedures and voyage planning.

Navigation at sea between ports requires good planning, a high standard of the personnel involved and well maintained and correctly operated equipment and machinery.

**03.01.02 RESPONSIBILITY**

It is the responsibility of Master to implement this procedure and to ensure compliance with applicable rules, regulations, codes, guidelines and standards related to voyage planning and bridge procedures

Master shall instruct, supervise and verify shipboard personnel who perform the tasks required by this procedure.

All shipboard personnel who are assigned tasks covered by this procedure shall comply with this procedure.

**03.01.03 WORK PERFORMANCE**

**General**

Company requires all vessels to maintain navigation standards in strict compliance with applicable rules regulations, codes, guidelines, standards in particular:

* Collision regulations, 1972 (as amended);
* SOLAS 1974 (as amended);
* STCW 1995 (as amended);
* Bridge Procedures Guide (ICS);
* IMO Resolution A.893 (21) - Guidelines for Voyage Planning;
* NP 294 How to Correct your Charts the Admiralty Way (BA);
* NP 133A Chart Correction Log and Folio Index (BA);
* NP100 Mariners Handbook (BA).

Shipboard verification and Company’s Internal Audit procedure shall directly address navigational activities. Improvements required shall be identified and implemented.

Master shall audit all navigational procedures covered in this Manual and such other navigation procedures as required by applicable rules regulations, codes, guidelines, standards.

Company shall designate a Superintendent and ops coordinator to liaise with the Master in all aspects of the operation of the vessel and to provide necessary routine shore-based support.

The assigned Operations coordinator shall be the principal contact, within the Company, for the particular vessel. All information shall be channelled through the vessel’s Superintendent. The vessel shall contact the Superintendent for any problem encountered on board.

The Master shall keep close contact with the Company, charterers, terminal representatives, port authorities and agents in order to fulfil the obligations of the charter party in a safe and efficient manner.

**Voyage Instruction**

At the commencement of each voyage, the charterers or commercial operators of the vessel will issue the vessel with voyage instructions. These voyage instructions usually contain all necessary information related to next port of call, cargo instructions, charter party clauses to be observed, appointed agents etc.

Master shall ensure that a copy of the voyage instructions is forwarded to the Company. In the event that the vessel encounters difficulties in compliance with the voyage instructions, or, finds that certain aspects of the instructions are detrimental to the vessel’s safety or to the success of the intended voyage, the Superintendent may be sought by the vessel in order to reconcile the issue.

**Agents**

Agents will normally be appointed by the charterers or commercial operators of the vessel. Agents’ full style will usually be provided to the vessel along with the voyage instruction or separately, by the charterers or commercial operators. When charterers have no agents appointed and/or in special circumstances, agents will be appointed by the Company. Master shall communicate with the vessel’s Superintendent if there is a requirement for the Company to appoint an agent.

**Bunkers**

Bunkers will be stemmed by the charterers or Company according Master's nomination.

The Master shall ensure that the vessel is adequately supplied with fuel oil and lubrication oil for the next voyage, with a suitable safe margin.

The minimum arrival fuel stocks onboard a CTV must never be below 25% total tank capacity, this is to ensure highest operational standards and the ability to provide a flexible and efficient service for our clients as well as leaving enough fuel redundancy in cases of unexpected emergency situations.

It is required that a minimum oil stock is retained onboard to return 1 set of machinery or running gear to service after failure, this includes; Main engine, Gear box, Jet system, Steering hydraulics and any other critical oil reliant system that is essential to ensure the safe return of the vessel and its passengers to a port of refuge

**Cash to Master**

When cash is required, the amount shall be transmitted at least 5 banking days in advance by email, to the Company Accounting Department, who will take care of further necessary arrangements.

**Delegation of Duty of Navigation Officer**

Master shall assign the function of navigation officer to a deck officer on board.

**Charts and Publications for Voyage**

Each vessel shall carry adequate and up-to-date charts, sailing directions, list of lights, Admiralty list of radio signals, nautical almanac, tide tables, notices to mariners and all other nautical publications necessary for the intended voyage; in compliance with SOLAS (as amended) and other relevant applicable rules, regulations, codes, guidelines, standards. Each vessel shall carry appropriate British Admiralty navigational charts and publications or their equivalent. Where available and appropriate, the British Admiralty navigational charts and publications shall be preferred to other Hydrographic office publications.

The vessels equipped with Admiralty Digital Products (ADP) program are not obligated to have on board hard copies of publications included in ADP.

Where a Master has to purchase charts locally at a port, it is essential that he informs the Company, so that the Company can advise Chart supplier accordingly.

If the vessel is supplied with charts of other publishers without automatic updating, these charts should be corrected in the same way as the Admiralty Chart through weekly notices. Necessary arrangements for updates shall be agreed with a Company.

If the vessel receiving order for next voyage at sea and necessary charts for entering into port are missing on board the Master shall contact with local agent for delivery of required charts and port plans with pilot before entering into port. Another option might be to obtain required charts (or copies) from local Pilot Station. Also Company shall be informed in such occasions.

**Charts and Publications Corrections**

It is vitally important that all charts and navigational publications on board the vessel are kept up to date with the latest corrections from Notices to Mariners and other relevant publications. Charts and publications needed for current and next voyages shall have first priority. The navigation officer shall ensure that all charts and navigational publications required for the current and intended voyages are on board and corrected up to date. Corrections shall not be delayed beyond six weeks.

Company shall ensure that Notices to Mariners are supplied to the vessel by suppliers appointed by the Company.

Vessels equipped with digital chart and publication management system are not required to keep hard copies of the NtM but be sure that soft copies are kept in PC. Blocks for publications and charts should be printed in colour.

It is important to check that the previous correction has been completed by checking that the number of the last correction has been entered on the bottom left hand corner of the chart. If not it will be necessary to check previous Notices to Mariners. Corrections shall be made in indelible ink, ensuring that standard symbols are used, that the correction is made neatly and accurately and does not obscure other information on the chart.

A Chart Correction Log (NP133A) shall be maintained up-to-date. The Chart Correction Log shall be always maintained ready for examination by PSC, Vetting Inspector, or other relevant Authority.

All OOW’s must monitor Navtex and other radio aids providing Navigational Warnings e.g. VHF etc. All warnings received during their watch are to be checked and marked on the chart where appropriate. These navigational warnings are to be left on the chart table for the navigational officer to check and file. The Master is to be advised immediately of any Navigational Warnings received that affect the immediate route of the vessel.

Chart catalogue shall be maintained up-to-date at all the times for new charts and new editions published and those withdrawn without replacement. Chart limits shall be drawn in or deleted on the appropriate index sheet in NP 131 and the chart number and title inserted or deleted as appropriate on the opposite page in the relevant page. This will ensure the correct charts can be ordered if the vessel is scheduled to take passage through such areas.

Navigational Warnings are to be removed from Notices to Mariners and placed in a special loose leaf file titled “Navigational Warnings”. This file is to be divided in sections for each area (i.e. Navarea I, Navarea II etc.). An update of the corrections in force is issued every four weeks with the Navigational Warnings and warnings cancelled should be deleted from section and removed from the folder.

Temporary and Preliminary notices are indicated by (T) or (P) after the notice number and are placed at the end of Section II of NTM. T&P are to be removed from Notices to Mariners and placed in a special loose leaf file titled “Temporary and Preliminary Notices”. This file is to be arranged in sections for each area (i.e. 1, 2, 3 etc.). An update of the T&P notices in force is issued every four weeks with the T&P notices cancelled should be deleted from section and removed from the folder.

Information from these notices is not included on charts before issue; charts shall be updated in pencil on receipt.

Amendments to Sailing Directions are given in Section IV of NTM. Those in force at the end of the year are reprinted in the Annual Summary of Admiralty Notices to Mariners Part 2 (NP 247(2)). A list of amendments in force is published in Section IV of the Weekly Edition quarterly. For volumes of Sailing Directions maintained by Continuous Revision, amendments may be cut out and pasted/corrected directly in to the book.

**Navigation Equipment**

The navigation officer is specifically responsible for the navigation bridge and the navigation equipment.

The navigation officer shall ensure that necessary maintenance and repairs are carried out in accordance with the manufacturer's instruction manuals. An approved service-technician must be ordered when required.

No repairs shall be carried out without Master's knowledge and permission.

A function test of all navigation equipment shall be carried out prior to commencement of any passage.

**Voyage Planning - General**

When voyage instructions are received, the Master shall advise Department Heads as soon as practicable, regarding the next voyage and instruct them to make the necessary preparation of the vessel.

The voyage shall be planned in advance taking into considerations all relevant information. Such a plan shall not be inflexible and may be amended by the Master at any time in interest of safety and efficiency. The Master shall establish a detailed plan for the entire voyage and shall ascertain that the vessel is ready for the next voyage, and that there are, with reasonable allowances of safety, sufficient stores, provisions, bunkers and water on board, for the next voyage and/or up to the intended replenishment port, as applicable. The Master shall also ascertain, prior sailing, that there are updated charts and navigational publications on board for the intended voyages.

The Chief Engineer, shall in consultation with the Master, determine the requirements of fuel, water for machinery operations, lubricants, chemicals, consumable and other spare parts, tools, stores and supplies etc. for the next voyage and/or up to the intended replenishment port, as applicable.

The Chief Mate, shall in consultation with the Master, determine the of water for domestic consumption, consumable and other spare parts, tools, stores and supplies etc. for the next voyage and/or up to the intended replenishment port, as applicable.

The Master shall ensure that watch keeping personnel who perform duties during departure from port and immediately thereafter have adequate rest prior to sailing.

The Master shall ensure that the vessel is adequately manned in compliance with applicable regulations and the requirements of the manning certificate.

**Voyage Planning - Passage Plan - General**

The navigation officer shall prepare the Passage Plan, under the guidance and instructions of the Master.

Master shall verify and approve the passage plan after it is ensured that it is made to his satisfaction and in accordance with this procedure.

Passage planning includes:

* appraisal, i.e. gathering all information relevant to the contemplated passage;
* planning of the whole passage from berth to berth shall include any intermediate offshore locations such as drilling rigs and platforms;
* execution of the plan; and
* monitoring of the progress of the vessel in the implementation of the plan.

**Passage Plan - Appraisal**

All information relevant to the intended passage should be considered. The following items should be taken into account for passage planning:

* Exact Offshore Installation positions SHALL NOT be used for GPS waypoints: always use an offset position, preferably on the down-current side, of at least one nautical mile from the installation.
* The condition and state of the vessel, her stability, and its equipment; any operational limitations; its permissible draft at sea in fairways and in ports; its manoeuvring data, including and restrictions;
* any special characteristics of the cargo (especially if hazardous), and its distribution, stowage and securing on board the vessel;
* the provision of a competent and well-rested crew to undertake the passage;
* requirements for up-to-date certificates and documents concerning the vessel, its equipment, crew, passengers or cargo;
* appropriate scale, accurate and up-to-date charts to be used for the intended passage, as well as any relevant permanent or temporary notices to mariners and existing radio navigational warnings;
* accurate and up-to-date sailing directions, lists of lights and lists of radio aids to navigation; and
* any relevant up-to-date additional information, including:
  + mariners’ routeing guides and passage planning charts, published by competent authorities;
  + current and tidal atlases and tide tables;
  + climatological, hydrographic, and oceanographic data as well as other appropriate meteorological information;
  + availability of services for weather routing (such as that contained in Volume D of the World Meteorological Organization’s Publication No. 9);
  + existing ships’ routing and reporting systems, vessel traffic services, and marine environmental protection measures;
  + SECA’s to be indicated and identified on charts
  + volume of traffic likely to be encountered throughout the passage;
  + if a pilot is to be used, information relating to pilotage and embarkation and disembarkation including the exchange of information between Master and pilot;
  + available port information, including information pertaining to the availability of shore-based emergency response arrangements and equipment; and
  + any additional items pertinent to the type of the vessel or its cargo, the particular areas the vessel will traverse, and the type of passage to be undertaken.

On the basis of the above information, an overall appraisal of the intended passage shall be made. Assessment of risks should be carried out for critical legs of the passage. This appraisal shall provide a clear indication of:

* all areas of danger:
* those areas where it will be possible to navigate safely, including any existing routing or reporting systems sailing directions, lists of lights and lists of radio aids to navigation; and
* any areas where marine environmental protection considerations apply.

**Passage Plan - Planning**

On the basis of the fullest possible appraisal, a detailed passage plan should be prepared which should cover the entire passage from berth to berth, including those areas where the services of a pilot will be used. Time permitting; the plan should be completed at least 24 hours prior to departure.

The detailed Passage Plan shall include the following factors:

* the plot of the intended route or track of the passage on appropriate scale charts: the true direction of the planned route or track should be indicated, as well as all areas of danger, existing ships’ routing and reporting systems, vessel traffic services, and any areas where marine environmental protection considerations apply; and
* the main elements to ensure safety of life at sea, safety and efficiency of navigation, and protection of the marine environment during the intended passage; such elements should include, but not be limited to:
  + safe speed, having regard to the proximity of navigational hazards along the intended route or track, the manoeuvring characteristics of the vessel and its draught in relation to the available water depth;
  + necessary speed alterations en route, e.g., where there may be limitations because of night passage, tidal restrictions, or allowance for the increase of draught due to squat and heel effect when turning;
  + minimum clearance required under the keel in critical areas with restricted water depth, and restrictions caused by bridges and overhead cables (Refer SOM Chapter 3.12 for Company guidelines for Under Keel Clearance and Clearance from Bridge and Overhead Cables);
  + positions where a change in machinery status is required;
  + course alteration points, taking into account the vessel’s turning circle at the planned speed and any expected effect of tidal streams and currents;
  + the method and frequency of position fixing, including primary and secondary options, and the indication of areas where accuracy of position fixing is critical and where maximum reliability must be obtained;
  + the method of parallel indexing, incl. clear marking of “No-go” areas;
  + the Abort Point is a position to be marked on the charted course where the ship may abandon her passage and be able to return (or hold position safely). Take care when marking an abort. At the abort position, there should be sufficient sea room for the ship to undertake any of the following maneuvers in safety - Turn around, Stop in safe waters, Anchor;
  + use of ships’ routeing and reporting systems and vessel traffic services;
  + considerations relating to the protection of the marine environment; and
  + contingency plans for alternative action to place the vessel in deep water or proceed to a port of refuge or safe anchorage in the event of any emergency necessitating abandonment of the plan, taking into account existing shore-based emergency response arrangements and equipment and the nature of the cargo and of the emergency itself.

The details of the passage plan should be clearly marked and recorded, as appropriate, on charts and in **Passage Plan Checklist**.

A bridge team meeting should be conducted with all navigation personnel present prior to commencement of the voyage.

Each passage plan, as well as the details of the plan, should be approved by the Master prior to the commencement of the passage.

**Passage Plan – Execution**

Factors which should be taken into account when executing the plan, or deciding on any departure from the plan include:

* the reliability and condition of the vessel’s navigational equipment;
* estimated times of arrival at critical points for tide heights and flow;
* meteorological conditions, (particularly in areas known to be affected by frequent periods of low visibility) as well as weather routing information;
* daytime versus night-time passing of danger points, and any effect this may have on position fixing accuracy; and
* traffic conditions, especially at navigational focal points.

It is important for the Master to consider whether any particular circumstance, such as the forecast of restricted visibility in an area where position fixing by visual means at a critical point is an essential feature of the passage plan, introduces an unacceptable hazard to the safe conduct of the passage; and thus whether that section of the passage should be attempted under the conditions prevailing or likely to prevail. The Master should also consider at which specific points of the passage there may be a need to utilize additional deck or engine room personnel.

**Passage Plan – Monitoring**

The plan should be available at all times on the bridge to allow the officer in-charge of the navigational watch immediate access and reference to the details of the plan.

The progress of the vessel in accordance with the voyage and passage plan should be closely and continuously monitored. Any changes made to the plan should be clearly marked and recorded.

**Deviation en route**

It might become necessary for the Vessel to deviate to pick up stores, crew change, bunkering etc. or the Vessel may be involved in a rescue mission.

It is the responsibility of the Master to ensure that the Voyage Plan is amended to reflect the intended deviation and that deviation can be conducted safely not exposing crew, cargo and vessel to dangers.

**03.01.04 DOCUMENTATION AND FILING**

Regulation V/28 of the 1974 SOLAS Convention, as amended, requires all ships engaged on international voyages to keep on board a record of navigational activities and incidents which are of importance to safety of navigation and which must contain sufficient detail to restore a complete record of the voyage, taking into account the recommendations adopted by the Organization.

Significant information related to the operation of the vessel shall be entered in the Log Book. Copies of all reports and correspondence must be kept on file on board.

Record of correction of charts shall be maintained in Admiralty Chart Correction Log, or equivalent, in accordance with the procedure given in NP 100.

Record of correction of other navigational publication shall be maintained within the publication in the space provided for the same.

Notices to Mariners for the current calendar year and past two years shall be available on board in hard or soft copy.

Ships on fixed route (e.g. passenger ferries) do not require to make a completely new passage plan, however the dynamic elements in each passage shall be duly filed in a suitable format for a period of two years, for each completed passage. This file should also contain the original passage plan for the passage.

Details about the deviation shall be recorded in the Deck log Book. Amended voyage plan, deviation statement and other relevant documentation shall be forwarded to Owners and/or to Charterers as instructed. A copy of all documents shall be filed on board.

**Updating**:

* This procedure is subject to changes caused by new regulations, recommendations or operational requirements.
* The Master shall report any disagreement between the procedure and the actual requirements to execute safe and efficient operations.
* Proposed changes of the procedure are transmitted by the Master to the SHE-Q Manager for review and processing.

**Passage Plan Checklist** once completed shall be filed on board for a period of two years, for each completed passage.