SHIP ARRIVAL/DEPARTURE PROCEDURE (FOM - 03)

Objectives

To strive for ship's safe entering/leaving ports through the establishment and implementation of ship arrival/departure procedure.

KPI

- Accidents/incidents/near misses during ship's leaving/entering ports.

INPUT Leaving/Entering Schedule, Port/Weather Information, Port Clearance

PROCESS MAP **ACTIVITY DEPARTURE** 1 - To confirm sea worthiness / receive port clearance ® ⊚ & all certificates. PREPARATION FOR - To test machinery / equipment based on DEPARTURE Arrival/Departure Check List. (Supplement 1) - To station crew based on task assignment for each situation. STATION FOR DEPARTURE - To report timely the status of work process / Existence of danger. - To Provide ship's information (maneuvering (Under characteristics / pilot card) Command Of EMBARK PILOT - To understand/discuss pilotage plan / intentions Master) (Supplement 3) - To supervise pilotage, monitor dangerous situation continuously, report timely and rectify deficiencies UNBERTH/TAKING UP if any. ANCHOR - To observe safe working standards. (Supplement 5) - To supervise/advise navigational dangers (position, other ship's movements, depth, obstacle, engine and 4 pilotage) continuously (Supplement 4) - To check safety before disembarkation (ship speed/ PILOTAGE (Under maneuver ship to make lee side for the ladder/ Command Of check ladder/ life-saving appliances/ illumination Master) & communication) (Supplement 3) Understand navigational dangers (other ship's DISEMBARK PILOT movements, depth, obstacles) and exchange internal information continuously To secure communication channels to FWD / AFT & E/R. To own jointly the information on risks related with leaving/entering. P/STN LEAVING - To heave up anchor / anchor watch / unberthing operations. - If necessary additional W/O arranged on Bridge & Engine on S/B. (Supplement 2) - To dismiss stations after termination of dangerous DISMISS STATION situation such as clear of BWE / narrow channel / high traffic density water etc. - To secure cargoes / cargo holds watertight. - To accomplish watch keeping in consideration of the SAILING(WATCHKEEPING) fatigue of ship's crew. **OUTPUT** (a) Arrival/Departure Check List(Deck/Engine) (b) Pilot Card (c) Condition Report

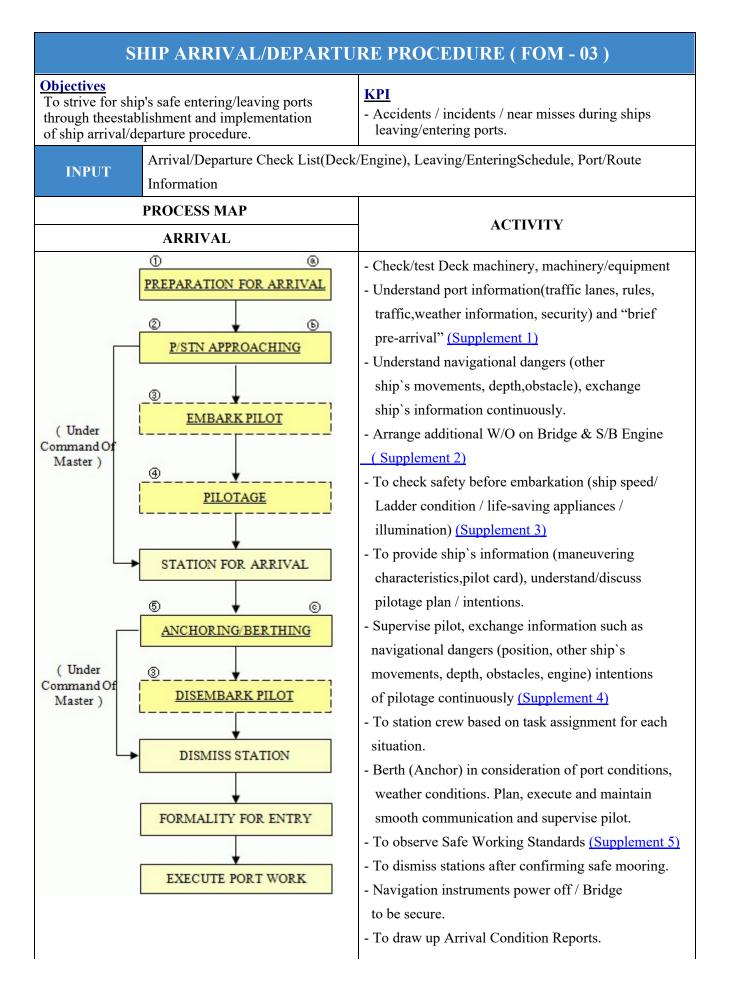
Bridge Procedures Guide, Port Information, Tide Table, 33 CFR 164.25, Reg.23 Chapt.5

Effective Date : 2019.03.31

Relevant

Document/Reg.

of SOLAS



	- Arrival Clearance.
	- Refer to Watch-in-Port Procedure.
OUTPUT	Arrival/Departure Check List (Deck/Engine)
Relevant	Bridge Procedures Guide, Port Information, Tide Table, 33 CFR164.25, Reg.23 Chapt.5
Document/Reg.	of SOLAS

[Supplement 1] Preparation for Arrival/Departure

1.1 Checking points and testing Machinery before Arrival/Departure

1.1.1 Each vessel should carry out checking and testing of all machinery in accordance with Regulation 26, Chapter V of SOLAS and 33 CFR 164.25 based on Arrival/Departure Check List within 12 hours before leaving/entering a port and this fact should be recorded in the Deck Logbook.

1.1.2 Main Engine Ahead/Astern Test

- The main engine test for running ahead and astern should be carried out within 12 hours before leaving/entering a port.
- To prevent accidents at the time of engine test, the following matters should be confirmed and in case the execution of the test is judged as dangerous, the test should be put off;
 - * To check if there is any obstacle near ship's stern such as small craft etc.;
 - * To check if bunkering or fresh water supply is being conducted;
 - * To check if there is any safety concerns related to cargo work and if mooring ropes and gangway/ladder are safe or not; and
 - * To check whether shore loading arm is disconnected or not.(Tanker & LNGC)
- Duty Officer on bridge should keep in close touch with Engineers in Engine Room.
- In case the vessel is anchored, care should be taken for the strength of anchor chain cable.
- Safe condition of the vessel's mooring ropes or gangway ladder should be reconfirmed and in case of bunkering or fresh water being supplied, ahead/astern running test of the main engine should be carried out after the disconnection of supply hoses.
- After the test the control lever of engine telegraph should be placed at STOP or FWE position without fail.
- Maintain proper pressure of TANK to prohibit release of cargo vapor(Tanker) and BOG(LNGC) to the air.

1.1.3 Checking Operational Condition of Deck Machinery

In case the vessel is on voyage or in port for 10 days or more, the personnel in charge of the management should carry out operating test of the Windlass and Mooring Winch among deck machineries, Cargo Gear, Pilot Ladders, Gangway Ladders and Deck Lighting Systems once or more at 2~3 days before leaving/entering port as per supplied W.I(including PMS or Check List) and its results should be recorded in the Deck Logbook.

1.1.4 In case of finding of such serious deficiencies prior to leaving that can't be rectified by crew,

master shall notify them to the fleet superintendent immediately for proper action.

1.2 Notice to all crew through "Pre Arrival Briefing" before arrival

1.2.1 Take necessary measures for all crew to be notified regarding dangers for all works which are expected while arrival, departure, anchoring or berthing. Record the content on the appropriate form (the form must be specifically modified to reflect the ship's flight schedule and characteristics). (in case of container and PCTC, accomplish this brief before arrival of first calling port in the district and notify the changes to the persons associated individually.)

- <The main contents>
- Itinerary (preparation of engine, pilot embark/disembark, berth/un-berth, load/un-load, shifting time)
- Details of cargo work (declaration of cargo, loading/un-loading work)
- Ship and Port Security information
- Replenishment of stores (fuel oil, fresh water, provisions) and repair items.
- Change of crew and emergency contact points
- Port characteristics (passage plan including risk of traffic lanes, condition of terminal facilities, matters that demand special attention during mooring work)
- All kinds of inspections and audits
- Actions should be carried out according to weather conditions and changes
- Port regulations/attentiveness regarding to unions
- Working conditions and attendance of engine/deck machinery/navigational equipment etc.
- The matters which are expected during berthing/un-berthing, at berth or attentiveness and the method of maintaining communication.
- 1.2.2 Master should send the brief items which have notified onboard in case of request from the company.

[Supplement 2] Approaching/Leaving Pilot Station

2.1 Duty of Master and Deck Officer

2.1.1 Master

- To command overall, be familiar with maneuvering characteristics, maneuver and take actions to avoid collision as per navigational rules (avoid inappropriate communication by VHF).
- Understand the characteristics of approaching/leaving lanes, the status of traffic (traffic flow), notification of ETA in consideration of dangerousness of approaching/leaving lanes (width, current, traffic), reduction of speed, VTS and request necessary shore team support (the usage of additional tugs etc.).
- In case it is impossible to secure safety due to weather and sea conditions, entering or leaving port

- should be adjusted through discussion with the Company in advance.
- Notify expected problems and concerns to the associated persons regarding characteristics of lanes, weather conditions, traffic, engine/deck machinery/navigational equipment and preparations for emergencies.
- Station proper number of persons in engine room/bridge considering the fatigue of crew and maintain close communication.
- To conduct engine tests in safe waters before entering/leaving port, arrange manpower to drop anchor in emergency before arriving dangerous waters and both anchors emergency stand-by to be dropped anytime.
- To check arrival/departure preparations through inspection with Check List in advance.
- To make relevant personnel familiar with precautions according to port information before arrival/departure against emergency situations.
- To request recommended course and weather information from the Ocean Route Service designated by the Company before leaving port and upon making Departure Report via telegram, the fact whether the services were used or not should be described in it.
- To conduct clearance work for arrival/departure
- * To prepare for various certificates and port clearance to be submitted to Agent or port authority referring to Port Informatio n and Guide to Port Entry etc.
- * To draw up Crew/Passenger List when entering/leaving port and submit those to Agent and port authority in case of necessity.
- * To recollect certificates submitted for departure clearance and collect the port clearance.

2.1.2 Deck Officer

- To assist master on Bridge.
 - <Matters to be reported to Master>
- "Officers should report all circumstances and happenings relevant to the ship to the master continuously"
- * The details of look-out with naked eye, navigational equipment (Radar etc) and the contents of communication by VHF
- * In case of an occurrence of an emergency situation
- * When he feels uneasiness regarding navigational characteristics (other ship's movement, navigational obstacles, special navigational marks)
- * In case of other dangerous/doubtful situation such as unexpected change of depth of water, difficulty in fixing position etc
- * When navigational danger is expected according to position, course/speed, set/drift, weather etc.
- * Report whether all instruments are working in normal condition or not (GYRO, MAGNETIC COMPASS, Steering System, RADAR etc.)
- Test of every machine/equipment during navigation and for entering port (ahead / astern test of main engine should be made under Master's instruction).
- Acquire ship's position regularly (acquire position before passing obstacle), mark current (set/drift) on chart.
- Look-out and watch for traffic, navigational obstacles (sallow waters, wrecks, navigational marks) and endeavor to contact Master as early as possible in case of need.
- Maintain the fittest condition of and use navigational equipments.

- Understand port information, master's intention of maneuvering, the characteristics of approaching/leaving lanes and traffic movements

- To check whether pilot ladder is rigged properly or not as necessary and guide the pilot for safe boarding/un boarding.
- * Chief Officer: to command berthing/unberthing, anchoring/heaving up operation at forecastle deck.
- * 2nd Officer: to command berthing/unberthing operation at poop deck, and to assist Master on Bridge during heaving up/dropping anchor.
- * 3rd Officer: to assist Master on Bridge, draw up Check List before arrival/departure, make entries of Bell Book and Pilot Card and tide/tidal current table.
- 2.1.3 Other members of crew should carry out their duties as prescribed in Task Assignment for Each Situation.

2.2 Arrangement of Additional Deck Officer on Bridge

- 2.2.1 Additional Arrangement of Deck Officer on Bridge during Ship's Arrival/Departure
 - Master may arrange additional Deck Officers or look-out on bridge when the vessel is leaving/entering any port or entering narrow channels in consideration of the characteristics of sailing routes, weather conditions, visibility, traffic density etc., so as to secure the safety of the vessel.
- 2.2.2 Standard of Additional Arrangement on Bridge
 - Anchoring under master's command: 2/O, 3/O
- 2.2.3 Standard of additional arrangement on bridge (Except LNGC)
 - Arriving at Dual Watch Area during C/O Watch: 3/O
 - Arriving at Dual Watch Area during 2/O Watch: C/O
 - Arriving at Dual Watch Area during 3/O Watch: 2/O
- 2.2.4 Master adjust whether the additional arrangement or not accordingly in consideration of the officer's fatigue and observance of regulation of rest hour.

[Supplement 3] Embark Pilot

3.1 Preparations before Pilot's Boarding

- Master should review the arrangement of pilot carefully in consideration whether there is a qualified pilot or not and the necessity and extent of pilotage etc., and in case of calling at a port for the first time he should send the form of "Pilot/Ship Information Exchange" to pilot through the Branch Office or Agent of the port to collect necessary information, and to utilize it in establishing the passage plan.
- ETA should be informed to Pilot through VHF radio and necessary information, such as the time available for pilot, on which side the pilot ladder should be rigged and height of the ladder above the water etc., should be requested.

- In case there are many ships approaching pilot station, inquire the sequence number for picking up pilot including other Ships and adjust speed or course accordingly.

- The pilot ladder should be suitable for the requirements of International Regulations (Regulation 23, Chapter V of SOLAS) and man-rope, illumination equipment for night time, life-ring attached with self -ignition light, heaving line etc. should be provided.
- Rigging and removing the pilot ladder should be conducted under Duty Officer's instruction, and for the safety 2 personnel or more dressed in life jacket should attend at the ladder, holding the transceiver to communicate with the bridge.
- Duty Officer should inform Duty Engineer of the expected time of S/B Engine and reducing speed for pilot boarding and un-boarding.

3.2 Precautions for Pilot's Boarding/Un-boarding

- Ship's speed should be reduced to required speed or about 4 knots for pilot's boarding and in case of necessity the vessel should be maneuvered to have the pilot boat on lee side.
- When the pilot is coming on board, Deck Officer designated by the master having donned a life jacket should attend at the ladder, holding transceiver to communicate with the bridge.

[Supplement 4] Pilotage

4.1 Supply Information Which Is Necessary For Maneuvering To Pilot

4.1.1 Master/pilot exchange checklists (ship to shore and shore to ship)

- Pre-arrival information exchange for pilot plan with prepared form should be executed at least 24 hours before pilot's boarding via agent and if pre-arrival information exchange for pilot plan is not possible, Master should secure sufficient time to discuss the pilot plan & sufficient room to maneuver ship before pilotage.

4.1.2 Drawing up Pilot Card

- 3rd Officer should draw up the Pilot Card in the form as attached before pilot's boarding and present it to pilot after receiving the master's confirmation.
- In case an accident occurs during pilotage, the copy of Pilot Card should be kept as important records.

4.1.3 Preparing Pilotage checklist

Upon securing sufficient time to discuss the pilot plan & sufficient room to maneuver ship,
 Master should execute information exchange for pilot plan with pilotage checklist after pilot's boarding.

4.1.4 UKC &SQUAT INFORMATION

- Provide the UKC information & SQUAT table for the current voyage to the pilot.

4.2 Obligation When Pilot is On Board

"Supply information which is necessary for maneuvering to the pilot"

4.2.1 Master's Obligation

- Pilot or Dock Master familiar with local circumstances is only an assistant to the master, so the master should keep in mind that the responsibility for safe ship operation lies upon him during the pilotage.
- Upon arrival of the pilot on bridge the master should present the Pilot Card immediately and hand over the right of ship's maneuvering to the pilot after briefing ship's maneuvering characteristics and other special matters about the vessel.
- The master should discuss with pilot for ships sailing and berthing/un-berthing plan and these include the number and horsepower of tug boats, number and position of mooring ropes etc. In case the pilot advises additional tugs for the safety of the vessel, required tugs should be used without considering its numbers. (In case the "Pilot/Ship Information Exchange" requested by the master in advance was not delivered, necessary information based on the form should be collected and the maneuvering plan should be confirmed.)
- The ship's routes and points where ship's engine to be used that cannot be drawn in the "Pilot Ship Information Exchange" should be discussed looking at the chart and drawing of those should be requested of Pilot (compare/review passage plan which is drawn by ship, discuss expected problems and include the results on the next passage plan)
- Notify the agreed passage plan with pilot to bridge/engine human resources, dictate the necessary warning/Report and maintain the smooth communication with the pilot.
- In case the wind speed is BF Scale 5 or upwards, the use of additional tugs should be considered positively after reviewing the wind direction, tide/tidal current, draft etc.
- If, B.F scale is 6 or more (22 knts ~), the master of PCTC consults with the P.I.C of Fleet team member before deciding on berthing and departure. If berthing or departure is inevitable as a result of discussion, take all risk reduction measures including using additional Tug.
- In case the pilotage is taken over from the Pilot temporarily or the pilot's measures are judged as dangerous, the master should command the vessel immediately for safe operation of the vessel.
- The features of the port, external effects such as coastal current, tidal current, ship's draft and shallow water effects etc. should be considered sufficiently.
- The location of life jackets for pilot should be informed.
- In case of expecting problems in berthing/un-berthing such as restrictions or limitations of maneuvering ability or counter actions in an emergency, such facts should be reported in writing to the Fleet Team.

4.2.2 Duty Officer's Obligation

- In case the master is not on bridge during pilotage, Duty Officer should keep in mind that the responsibility for safe operation of the vessel rests upon him.
- Pilotage plan and pilot's intentions should be well understood and close cooperation should be made during pilotage, and every navigational instrument necessary for ship's maneuvering should be in operation.

- Required navigation lights are to be lit and the shapes and signal lights are to be hoisted in compliance with International Regulations for Preventing Collision at Sea and local rules and regulations.

- Characteristics of sailing routes and matters relevant to pilotage are to be asked frequently so as to have the pilot concentrate his attention on pilotage.
- Disturbing behavior or kidding capable to distract the pilot's attention should be self-controlled.
- Duty Officer should keep in mind that he is the main radar and ECDIS observer and any movement of vessels around should be checked early and reported to pilot, and confirm VHF communication related with ships sailing. In case of using two radars and ECDIS simultaneously one of the radars should be designated for pilot's use.
- Duty Officer should fix the vessels position frequently and make a mark on charts and particularly the transit time of buoys and important aids to navigation should be marked on charts.
 (Ships equipped with ECDIS measure their position using the EBL/VRM/LOP function within 15 minutes and compare with GPS and RADAR)
- Engine orders made by pilot, Dock Master or master should be executed correctly.
- Steering of the able seaman should be monitored and in case of necessity wheel orders are to be relayed so as to achieve a smooth maneuvering.
- Important matters such as pilot's boarding/un-boarding time etc. should be recorded in the Bell Book.
- In case the pilot's actions or intentions are doubtful, explanation for the same should be requested from the pilot immediately, and if any question or doubt still remains, such fact should be reported to the master and in case of urgency necessary action should be taken even before the master comes to the bridge.

4.3 Bell Book

- In case of collision accidents the records of using engine on bridge and engine room will be important evidence to establish the facts. Such records should therefore be made correctly.
- The recording time will be Ship's Apparent Time (SAT), and the clock on bridge and in engine room should be adjusted to coincide correctly.
- In the vessel using Engine Telegraph Logger, the record should be checked carefully at all time not to have an error and its time should be adjusted to SAT.
 - The records should not be missing or wrong. This can be ensured by checking paper level and recorder condition in advance.

[Supplement 5] Precautions during Anchoring and Berthing/Un-berthing

5.1 Precautions during Anchoring/heaving up anchor

5.1.1 Before anchoring/heaving up anchor, check windlass (worn out condition of shackle pin, crack condition of the crown, brake system) and in case there are troubles or defects, repairs should be requested.

5.1.2 Anchoring Plan should be established after collecting information on expected anchoring position, nature of seabed(including around seabed condition-wreck, cable, pipe line, fishing reef, etc) depth of water etc and discussion with port authority and company.
Decide whether to anchor or not if the weather condition is bad or expected to be bad (On anchoring, when bad weather is expected, take shelter after discussion with the company in advance)

- 5.1.3 In case the anchoring is to be conducted in deep water or hard quality of bottom, the anchoring is to be carried out as mentioned below to prevent any damage or deformation of the anchor;
 - In case of 20m or less in depth of water the anchor is to be dropped from cock-a-bill position, but in case of hard quality of bottom the anchor is to be dropped after adequate walk out to prevent excessive shock to anchor;
 - In case of 20~50m depth of water the anchor is to be walked out up to 7~8m from bottom and to be then dropped at low inertia and the chain laid out in the fore-&-aft direction using brakes;
 - In case of 50~80m depth of water the anchor is to be walked out up to the bottom and the chain is to be paid out and laid in a forward-&-aft direction at low inertia, so as to have the anchor bite the bottom;
 - In case the depth water is 80m or more, estimated length of chain cable is to be paid out upright in a stopped condition.
- 5.1.4 After dropping anchor the cable 3 times of the length between the hawse pipe and bottom of the sea should be paid out, hold that to have the anchor dig into the bottom properly, and then make her brought up after paying out the intended cable length.
- 5.1.5 On heaving up anchor, fore station crew reports the direction and tension of anchor chain from time to time, master uses engines to avoid excessive tension.

5.2 Precautions during Anchor Watch

- 5.2.1 While the vessel is anchored, anchor watch should be kept for safety of the vessel and the main engine, steering gear, deck machinery etc. should be prepared in advance against every situation that may be encountered.
- 5.2.2 While the vessel is at anchor, anchor bearings should be observed from time to time and its result should be recorded in the Deck Logbook.
- 5.2.3 In case Duty Officer has feeling of collision risk against any approaching vessel during anchor watch, he/she should make warning signals to the vessel with whistle, signal lamp, VHF radio etc., and should make a report to the master.
- 5.2.4 If the anchor dragging is detected during anchor watch, it should be reported to the master immediately and measures taken against accidents.

- 5.2.5 Anchor lights should be checked for proper functioning and in case of restricted visibility appropriate sound signals should be used.
- 5.2.6 During the stay at anchor, the maintenance work of main engine should be avoided and in case it is necessary to carry out, it should be conducted after acquiring the permission of relevant port authority and confirmation of the following:
 - It is informed to manager of the Fleet Team;
 - Both anchors are available;
 - The anchorage near the vessel is suitable for anchoring and wide berth is available: and
 - The weather forecast is good for the intended duration of the maintenance work.
- 5.2.7 Follow up the related procedure(FOM-08 Anchoring/Berthing keeping procedure)

5.3 Precautions during the Berthing/Un-berthing

5.3.1 Supervise pilot

- Report the expected dangers to the relevant persons. Assess the dangers associated with berthing / unberthing /turning etc., of the vessel and then implement / supervise and report suitable actions.
- If necessary, give advice and supervise pilot whether or not to berth/un-berth or turn in consideration of the width of lanes, the distance from obstacles, wind, current, fog, usage of tugs etc.
- When the pose of berthing/un-berthing is unsafe or speed is too fast, advise to use engine/tug/ bow thruster and when urgent danger is envisaged, take the conning from pilot and maneuver to safety.
- Politely request the Pilot not to rush to berth.
- When arriving at berth and using tug to make it traverse, if a forward/ backward speed exists whitin 1 X B, request pilot not to have momentum due to the existence of a danger which will be resulted from the contact with the wharf.
- When the vessel approches alongside the berth and is at about 1 X B with berth, request the pilot to make it parallel to the wharf.
- When the vessel is within 2 X L, request the pilot to make speed keep 2 knots or less in advance, and monitor the speed. (Request politely that, it is the company policy.)
- When the vessel is at about 1 X B, request preparation of using tug reversely.
- When the vessel approches alongside the berth, supervise thoroughly. Because, the pilot is sometimes nervous and make wrong orders.
- For reference, when using reverse engine and making speed 3 knots or less, it is possible to stop it within 1 X L.
- Master should advise the pilot to do manuevering with a safe speed in order not to cause damage to berthing vessels and the small boats inport by the emanation waves and the deverging waves due to high speed.
- 5.3.2 Guide for Safety speed (pilot used safety vessel speed standards by usual)

- Safe Speed when approching to Berth
 - a) 5 X L (hull length) in the distance to Berth: 5 knots or less
 - b) 4 X L in the distance : 4 knots or less
 - c) 3 X L in the distance: 3 knots or less
 - d) 2 X L in the distance to berth: 2 knots or less
- Safe Speed in front of Berth when moving sideway
 - a) 3 X B (width) when off: 10 cm / sec. (about 0.2 kts)
 - b) 1 X B (width) when off: 5 cm / sec. (about 0.1 kts)

5.3.3 Maintain smooth communication

- The personnel in charge of Forward Station/Aft Station should check frequently the condition of lines, ship's approaching speed, distance to pier etc., and make a report of those to the bridge, so as to have the bridge understand the situation correctly.
- Bow Thruster Knob should be controlled by the master or Duty Officer on bridge and its use should be reported/repeated between Forward Station and Bridge so that each understands.
- The person in charge of forward station understands the method of signals by hand correctly.

5.3.4 Others

- Mooring ropes should be prepared for lowering on the water only and the rope should be paid out slowly with hands incase of sending ashore. Particularly, in case of sending the spring lines, the line should be put out one by one as far as possible and it should be put out at proper speed in synchronization with the lineman's work.
- To identify the location of Bow Thruster easily, luminous paint marking should be made on Bulwark at the upper part vertically above the location of the Thruster. To prevent the suction of mooring ropes into Thruster propeller, the draft forward should be so adjusted that the depth between the upper part of Thruster and water surface is more than the diameter of the Thruster propeller as far as possible.
- Care should be taken not to let the mooring ropes get caught in shore constructions and ropes should be heaved in quickly not to be allowed to get sucked into the Thruster.