Preface.

In last chapter we have very detail discussion of graphical awareness in visual, radar and ECDIS. These awareness we need in each situation need to be as simple as a picture, no mental calculation or second thought is needed in their application. However, if the awareness cannot become an actual action to make the change of the situation, it will be useless. From our feeling, good or bad, to become an action need a self-encourage process which is called motivation. Motivation is easy to say than do. No, it is not easy to do is because we don't have enough preparation of its process and how it should be going to reach our goal. Originally, this is the topic of Human Element, or BHRM bridge human resource management, or safety culture of another book. But in Ever Forward case, we see 3rd mate missed it and we need it more often in the chapters to come while vessel is berthing with pilot which mariner refer it as MPX, Master Pilot Exchange information. MXP is important but not only in its static information exchange, but in its dynamic situation awareness exchange while vessel is berthing.

Key Words: Complacency； ~~**Slip；Refer to authority；Speed reducing rate ；Dangerous Sheer ；Positive Communication ；Accountability ；Assertive**~~

Terms used:

1. **Complacency** : Mariner had lost sense of risk in the work they are taking.
2. ~~**Accountability :** Doing the right thing in the right time is the culture we need on bridge.~~
3. ~~**Assertive :** which is to uphold one's own right without hurting other's feeling.~~

CHAPTER 6　Effective communication on

bridge

6.1 STCW & IMO Resolutions

Here under we quoted some paragraph from USCG investigation report to demonstrate the communication concern mariner should have.

1. International convention IMO Resolution: is to support the pilot and ensure that his or her actions are monitored at all times.

"International Maritime Organization (IMO) Resolution A.960(23) highlights that efficient pilotage largely depends upon the effectiveness of communications and information exchange between the pilot, master, and bridge personnel regarding navigational procedures, local conditions, and ship's characteristics. The IMO advises that this information exchange should be a continuous process that is generally ongoing for the duration of the pilotage. The IMO further emphasizes that Masters and bridge officers have a duty to support the pilot and ensure that his or her actions are monitored at all times. It is essential that these procedures are not only reflected in the vessel's Safety Management System but also regularly used and practiced during transits with pilots on board."

- ✓ In the old time, "support the pilot" is to fix ship's position while in navigation or mark the passing time of each buoy on the navigation chart to remind everyone when they already lost count of the buoys along the channel.
- ✓ The purpose of this is to give the pilot or master the awareness of where the vessel position is right now if in case pilot lost position's awareness.
- ✓ However, since the introduction of ECDIS on bridge no OOW or captain doing this (fixed ship's position) again.
- ✓ Everyone on the bridge, OOW, Pilot, or master, as well as the AB only take a look inside the ECDIS.
- ✓ As what need to be aware inside or on the monitor of ECDIS had no procedures to an international acceptable standard or acceptable practices for international usage.
- ✓ This is what we try to accomplish here in this book.

"ensure that his or her actions are monitored at all times" :

- ✓ As former practice, fix ownship position is a demonstration to pilot. "we are followed up your movement closely."
- ✓ It is a practice after vessel had turned means we are not sleeping.

- ✓ This practice is not exercised before vessel turning, before the pilot had taken action to alter course, which is the critical point before a grounding accident.
- ✓ We recommend to use 3 minutes speed vector as a basic requirement in international standard to know the WOP.
- ✓ The wording to remind the pilot turning point had arrived should be "Sir, it is wheel over position, or WOP now"
- ✓ 3 minutes before the turning point is when ECDIS 3 minutes speed vector's arrow mark in on the turning point.
- ✓ Beside the words we said, OOW should point at ECDIS the arrow mark of ownship speed vector on the turning point by hand if pilot had missed the WOP.
- ✓ With the setting of position EBL for non-fix navigation, OOW should inform the pilot whenever vessel is already on Wheel Over Line by verbal reminder or point it inside the ECDIS by his finger.

"While local pilots are essential to the safe navigation of vessels unfamiliar with U.S. waters, all bridge team members have an obligation to intervene, if a pilot in the direction and control of their vessel is taking an unsafe action or not taking an action required to keep the vessel, crew, and waterways safe. Marine operators should take proactive measures to ensure bridge teams are effective in communicating with pilots onboard and that concerns will be conveyed without hesitation or ambiguity."

- ✓ Mariner operator include ship's owner or shipping company or manning agency to take measures to make sure bridge team have effective communication with pilots.
- ✓ Effective communication with pilots usually means the ship's master and crew have no problem in their communication with pilot in Maritime English
- ✓ This requirement may be interpretated as a common working language (English) should be used in communication between bridge teams and pilot.
- ✓ As what should be said may be included in IMO Standard Marine Communication Phrases (SMCP) (resolution A.918(22)), but it is not included what we had mentioned of speed vector or positioning EBL line.

"concerns of pilot is taking an unsafe action or not taking an action required to keep safe will be conveyed without hesitation or ambiguity."

- ✓ Without common understanding or knowledge, any communication made is ambiguity. This is most basic obstacle of communication.
- ✓ These understanding and Knowledge is not readily available to every bridge team as they are out of school of different time and location.
- ✓ Although mariner have common requirement of IMO and STCW convention to regulate their qualification, it is still not enough to cover all aspect of their jobs at hand.

- ✓ Ambiguity is knowledge base requirement which is why we have to study the practical way to solve the problem we had now.
- ✓ Conveyed without hesitation will need an inner motivation process by company's safety culture which is proactive or passive. We discuss in later paragraph.

"The IMO SMCP builds on a basic knowledge of English and has been drafted in a simplified version of maritime English. It includes phrases for use in routine situations such as berthing as well as standard phrases and responses for use in emergency situations."

- ➢ Under the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, as amended, the ability to understand and use the SMCP is required for the certification of officers in charge of a navigational watch on ships of 500 gross tonnage or above. "
- ✓ Unfortunately, after we checked on the content of SMCP we cannot find the phrase to communicate with the pilot about the turning point's reminder, execution, or precautions, etc...
- ✓ We may have to simulate the dialogue later to provide an example for marine operators to use on their crew's training.

6.2 National law USC & CFR:

"46 USC § 2302(a) provides that a person operating a vessel in a negligent manner or interfering with the safe operation of a vessel, so as to endanger the life, limb, or property of a person is liable to the U.S. Government for a civil penalty."

- ✓ Civil liability is our liability to other person regarding his life, limb, or property.

"In order to show a violation occurred under this cite, there must be evidence to show that the charged party in fact: 1) operated a vessel; 2) in a negligent manner; and, in doing so, 3) endangered the life, limb or property of a person."

- ✓ In short, if you are operating a vessel you are in danger of negligence and endanger the life, limb and property of other.
- ✓ If you are operating a vessel you are in danger of civil liability to others.

46 CFR § 5.29 defines negligence as, "…the commission of an act which a reasonable and prudent person of the same station, under the same circumstances, would not commit, or the failure to perform an act which a reasonable and prudent person, of the same station, under the same circumstances, would not fail to perform."

- ✓ As an OOW, we are a reasonable and prudent person by the license we had.

- ✓ On the Same Station means we are standing on the bridge with pilot and doing the job then.
- ✓ Under same circumstances means in some stage of process every reasonable and prudent person will do the same thing, like before the turning point. Or
- ✓ He would not fail to perform an act which a reasonable and prudent person would not fail to perform.

"The evidence collected for this investigation supports pursuing civil penalty action against Pilot 1 for negligent operation of a commercial vessel."

"Pilot 1 is at fault while

"1. Pilot 1 potentially missed cues from the bridge team when they repeated the vessel's heading as the turn was approaching, and again after the turn had been missed."

"At approximately 2017, the Third Officer announced on the bridge that the vessel's heading was 161 degrees and speed was approximately 13 knots. Pilot 1 verbally acknowledged the Third Officer and took no action. The Third Officer stated that the Pilot was still looking at his phone at this time."

- ✓ This is the communication problem here. 3/O announced ship course and speed to pilot is useless.
- ✓ Although 3/O had noticed that this pilot is very occupied by his cell phone correspondence with external parties before the incident.
- ✓ 3/O should have the sense that pilot may forget the heading and turning point already which make pilot cannot understand what 3rd officer is saying by announcing course and speed to him.
- ✓ Even 3/O had tried to announce course and speed to pilot, Mr. pilot is not at the mood or groove that the turning point is arrived.
- ✓ No response. By then, more drastic moves have to be taken by 3/O for the fact (Mr. pilot is not at work now) which 3/O had ascertained now.
- ✓ He has two choices, one is to bring Mr. Pilot back to his job now, the other is to execute the turn by himself if he ascertained this position is correct for course change.
- ✓ The way to bring Mr. pilot back to his job need the communication skill called "positive communication" which is to say what is in your mind directly. To communicate the concern he had in mind right now.

6.3 Positive Communication

- ✓ To say what is right in your mind "what you want" : Positive Communication

- ✧ “we need to alter course now” when there is one minute more before the turning point position. Or
- ✧ “vessel will aground in next minute” when vessel is at turning point already.
- ✧ Prudent OOW will inform the pilot before the turning point is arriving and say “ Mr. pilot, we are going to approach the turning point now” when he saw Mr. Pilot is not aware of it, 3 minutes before the turning position and point out the 3 minutes speed vector’s arrow mark is at turning position now.

✓ To do the right things they need “what you expect” : Accountability

- ✧ If there is no time to communicate the situation or two parties may have different prospect of the situation, prudent navigator should do it (he truly believe) as the best interest for all parties concerned.
- ✧ “To do” is not an easy job which need a proper training of the courage we have and cultivation the atmosphere of proactive safety culture on board.
- ✧ 3/O have to <u>make sure ship’s position once again no matter how urgent</u> the situation he think because he may take all responsibility after he take action along to alter the course.
- ✧ It depends on Pilot’s reaction after 3/O take action along.
  - ✧ Pilot may resume the manoeuvring when he finally realized what 3/O is doing.
  - ✧ Pilot may still unaware of what 3/O is doing and has no follow-up with 3/O action.
- ✧ The efficiency of 3/O fixing position depend on his navigation practice on the bridge, by positioning EBL or visual. He may be as quick as another one look into the ECDIS again or check the visual navigation aids outside bridge window.
- ✧ In this incident, Mr. pilot do complain about the buoys at turning point is a pair of ordinary IALA buoy without usual quick flash lighted buoy to mark the turn. This deficiency of buoys layout design give no visual alert which is needed by mariner, even by an experienced Pilot.
- ✧ The action 3/O should take is, Give the rudder order “Starboard 10” as loud as possible and look into the eyes of quarter master at the same time.
- ✧ This is to alarm both parties of Pilot and quarter master, 3/O is in charge now.
- ✧ They will confuse by this ” Starboard 10” rudder order you shout as you had not communicate or had failed communication earlier.
  - ✧ Usually, Pilot will understand the situation immediately if he has the navigation aids he needs (his own favorite PPU).

        - ✧ But, pilot is not well prepared in this case for his PPU is in playback mode which cannot provide indication of ship's position now.
        - ✧ And, one look outside the bridge will not help pilot of anything either as these pair of buoys has no quick flash light by the design.
    - ✧ 3/O have to look at quarter master is to confirm his intention of the rudder order "Starboard 10" to quarter master if he has some doubt in his eyes / face and seeks for clarification from 3/O.
    - ✧ If 3/O saw quarter master's question face, he can nod to him to confirm his intention of rudder order.
    - ✧ Also, it is important to check quarter master had turned the wheel and had turned in correct direction as quarter master has no ECDIS and visual aids to know where this ship is going.
    - ✧ Once ship's heading is moving 5 degrees to starboard side, give the course 180 degrees to quarter master to steer. (release the tension of maneuvering and the uncertainty of ship's response to the rudder angle been used)
    - ✧ Called the master immediately. 3/O don't need to explain to Mr. pilot anything. (no time and no need)
    - ✧ Pilot may awake from his own chaos now and take over the con.
    - ✧ Anyway, master have to be informed now.
- ✓ To be able to do "what you should" : assertive
    - ✧ Assertive is to claim one's concern without hurting other's feeling.
    - ✧ To be an assertive OOW, we need to take the first move.
    - ✧ The first move is an accumulated experience from past practice we had.
    - ✧ It is like other skills we had on bridge like, take sight, radar observation, collision avoidance,… They all have the very first time, so don't let the first time become your last one.
    - ✧ Speak, inform, instruct the pilot what 3/O need to say (as it is not the last time 3/O need to do it = mind set of 3/O).
        - ✧ Speak, is something we say without any emphasize of its importance.
        - ✧ Inform, is something we say with some kind of formality and compulsory.
        - ✧ Instruct, is something we say with authority and have to be complied.
    - ✧ Yes, there are 3 levels of communication requirement. It is not depend on your politeness; it depends on the urgency of the situation.
        - ✧ When there is ample time before the event, you may address it politely and remind your member.
        - ✧ When you are right on the spot, the action needed is immediately. Just simple truth and actions needed.

- ✧ If the right time is missing now, give him clear instruction or clear vision ahead you had foreseen.
- ✧ You should be able to master these 3 kinds of communications skill by repeat it in your heart in routine navigation to familiar with it.
  - ✧ When there is ample time before the event, “Sir, we are about to alter course now.”
  - ✧ When you are right on the spot, “Now is the turning point, please alter course.”
  - ✧ If the right time is missing now, “we passed turning point, alter course now.”

“ Since Pilot 1 stated he was not utilizing any other navigation equipment besides his PPU, he was unable to accurately determine the vessel’s location in real time.”

- ✓ This is not a reason to excuse. This is his fault. He had not doing his best (all he can) to safe guard the vessel.
- ✓ This is not his laziness. It is human nature to keep things as simple as possible.
- ✓ We should change our mind-set to keep things as safe as possible with all means we have.

“ Had Pilot 1 refrained from drafting email correspondence, and placing and receiving personal or non-urgent 14 professional calls, it is possible he would have maintained better situational awareness and properly executed the turn in a timely manner, avoiding the vessel grounding”

- ✓ Usually, no irrelevant communications with outside parties is a basic requirement in navigation safety on board and their SMS.
- ✓ Every ship operator had this requirement already only they don’t know how to compel on Mr. pilot to comply.
- ✓ The pilot association is not a rigid organization which may not subject to SMS requirement.

6.4 Single minded Complacency

Inadequate Bridge Resource Management

“1. As noted in U.S. Coast Guard Marine Safety Alert 09-13, a key aspect to effective bridge resource management includes using all available resources, both human and electronic. As previously mentioned, the only equipment Pilot 1 used to navigate the vessel was his PPU.”

“ 2. Pilot 1 stated that he was not aware that there were paper charts on the bridge and that he was intentionally in the practice of not using the ship’s installed

navigation equipment, including the ship's ECDIS."

- ✓ Very often, pilots may use only one means to navigate the vessel. The problem is not how many means you had used.
- ✓ The problem is the navigation watch should not be interrupted in any case, no matter how many means you are used to monitor the progress.
- ✓ The navigational watch interval may be scattered as OOW's position fixing interval is not always in very compact 3 minutes term.
- ✓ If you cannot maintain continuous compacted watch keeping with non-fixing skills, you should make sure you know how minutes more is needed to alter course even in a very straight waterway, like in a river passage.

" 3. This was due to his stated distrust of equipment besides his PPU."

- ✓ This is at his own risk. He has to adapted to the equipment on board or seek for other means by his own power (visual, radar, or carry his own PPU beside the one association given to him, the positioning EBL skill has no restrictions in its application on radar if he knows) to do his job.

" 4. He also stated he found the navigational buoys to be unhelpful. Since it was a clear night and his view was unobstructed, Pilot 1 should have been able to easily view the available navigational aids that marked the channel's turn south, a lighted gated pair of lateral buoys." (he is right.)

" 5. Pilot 1's lack of awareness and decision not to use ship's charts, navigation aids, and other available bridge navigation systems demonstrates an overreliance on the singular PPU system."

- ✓ Most serious problem is when he discontinuous use of his PPU but it cannot give him a little risk-taking thought.
- ✓ If pilot 1 can feel something is wrong, he will find some way to replace the monitor function of his PPU and keep on his watch keeping.

"6. This overreliance on a single navigational tool limited the pilot's ability to accurately and quickly make a full appraisal of the situation and safely navigate the vessel."

- ✓ Overreliance on a single navigation tool together with its limited function and application knowledge is what we called "complacency".
- ✓ The complacency is because his PPU give him a feeling that the job is much more easy to know where the vessel are right now to compare with years ago.
- ✓ In the past, he may have to rely on ship's OOW fixing ship position in every 3 or 6 minutes or counting/identifying the buoys' number by himself to know where vessel is.
- ✓ Right now, he may just take a look inside his PPU and know immediately what he has to do.

- ✓ All maneuvering depend on one look of PPU. If this one look is missing, then everything else are missing immediately.
- ✓ That's the risk of depending single mean of lookout and why we need double check to get the awareness if one of these two is missing.
- ✓ The complacency is exactly what Mariner had lost sense of risk in the work they are taking now.
- ✓ The reasons cause the complacency are lots. That's the reason of "Challenger" explosion after 10 times successful launch.

We have another versions of marine accident caused by Complacency in BHRM. Here we quoted some topics of NASA Aviation Safety Reporting System issue 446 to raise our awareness.

" Defined as overconfidence from repeated experience on a specific activity, complacency has been implicated as a contributing factor in numerous aviation accidents and incidents. Like fatigue, complacency reduces the pilot's effectiveness in the flight deck. However, complacency is harder to recognize than fatigue, since everything is perceived to be progressing smoothly."

Complacency plagues more aviation professionals than just pilots. It can occur to anyone while accomplishing the most routine function or the most complex task in any sector of aviation operations. Because immunity from complacency simply does not exist, proactive techniques and procedures are necessary to mitigate its detrimental effects.

- ✓ Fueling Complacency : This C182 pilot experienced an embarrassing loss of engine power. The pilot attributed his loss of power and subsequent off-field landing to pilot complacency when he overlooked a portion of the checklist procedures.
- ✓ Dueling Complacency : A Tower Controller's complacency, compounded by a pilot's perfectly timed mistake, resulted in a ground conflict that could have had more serious consequences.
- ✓ Automating Complacency : A G-V pilot was surprised when his automation did not capture the altitude as it always had. Contemplating the incident, he discovered the underlying problem.
- ✓ Functional Complacency : During the initial takeoff on what seemed to be a routine day, a B767-300 First Officer made a simple, but significant error. Making no excuses, he describes how complacency was the most probable culprit.
- ✓ Procedural Complacency : This Mechanic erred while performing a procedure on a CRJ-700 engine. Only after extensive damage was done to the engine

during run-up testing, did he realize the mistake and distinguish between the apparent and root causes.

- ✓ Combating Complacency : This Flight Attendant, who recognized an ongoing situation where complacency could generate a real hazard, attempted to mitigate the threat by making the hazard known. We applaud both the Flight Attendant and the effort.

While every incident can be attributed to complacency, the definition of complacency seems meaningless. We could just define the Complacency is a simple-minded or single-minded state who can see only one side of the incident without a whole picture of what is happening around it.

To give us a whole pictures of each incident, we have to cultivate the knowledge by reading, the skill by practicing, and intuition to cultivating. Now back to our discussion of Ever Forward,

“ Had Pilot 1 used all available means to determine the ship’s location, the grounding likely would not have occurred.””

- ➢ Pilot 1 had not used all available means to determine the ship’s location. This is a polite way of saying. The truth is pilot 1 use only one means to determine ship’s location which is a single minded state: complacency, no double check.

6.5 assertive

“ Leading up to the grounding, the EVER FORWARD bridge team observed that Pilot 1 was frequently on his cell phone and appeared agitated.

- ➢ Bridge team sensed the alarm but take no action. Maybe OOW can go forward and ask “Sir, do you need a cup of coffee?” to remind Pilot 1 where he is now.

“ Immediately prior to the grounding, the Third Officer, a Chinese national, believed that the vessel had missed the waypoint to turn.”

- ➢ “vessel had missed the waypoint to turn.” OOW should give instruction to Pilot 1 as we discussed before which should be like this “Sir, vessel missed the turn, alter course now”.
- ➢ No politeness is needed, or OOW can call it aloud, everything can do to raise the attention immediately.

“ However, instead of directly telling Pilot 1 that the turn had been missed, he repeated the heading multiple times in an attempt to cue Pilot 1 of the vessel’s situation.”

- ➢ “instead of directly telling Pilot 1”, it is a wrong attitude in this emergency.

- We are not telling and communicate with Pilot 1. We want to settle our own concern of safety first, no matter what pilot 1's personality need, to raise his attention with immediate effect.

" The EVER FORWARD's SMS dictates that if the vessel experiences difficulty maintaining course or any doubts arise in regard to the vessel's situation, the officer on watch shall call the Master. "

- It is every ship's practice, also clearly stated on their SMS policy.
- However, first thing is first. When Master is not on the bridge, OOW is on behalf of the master now. Give the rudder order now and let Pilot 1 to take over.
- Call the master, although it is necessary in every case but it is not the first thing to do if you know what is more important now.

" After the Third Officer's attempts to cue Pilot 1, he did not immediately notify the Master. Had the Third Officer immediately notified the Master, the likelihood of an alternate outcome is low due to the short amount of time between the point when the turn south was missed and the grounding."

- Failed Communication: communication take 5 steps to accomplish which are
  1. From the sender's mind to his native language.
  2. From his native language to working language
  3. From sender's pronunciation of working language to receiver's ears.
  4. From receiver's ears working language to his native language.
  5. From receiver's native language to his mind.
- Communication chain could miss in each one or two of these links.

" Without substantive input from the bridge team, Pilot 1 continued to underutilize the available resources for navigation and continued to look at his cell phone."

- No substantive input from the bridge team, no input can make pilot 1 feel / sense something is wrong or give pilot 1 a clear instruction what action need to do.

" The Third Officer acknowledged that as the expert on local waters, he was hesitant to question Pilot 1's expertise and familiarity of the channel."

- 3/O don't need to question pilot 1, he just need to do his job.
- It is not a questioning process; it is the things need to do on bridge in 3 correct priorities/sequences.
- Lots thing on the bridge don't need to communicate, "just do it" just follow the priority and do as you should then you will get what you want.
- So, the worry of 3/O "How to question pilot" is not a problem.
- 3/O should know what to do if he find something is wrong, step by step.
- Just do it is accountability (doing right thing in right time) or just tell pilot the truth is positive communication (say what you want) now.

“ This may have in part been due to the Third Officer fearing he may offend Pilot 1 or cultural differences regarding seniority.”

- 3/O fearing he may offend Pilot 1 is because he thought this is a personal issue. It is not personal issue but a teamwork everybody has part in it. Just doing your part will be good for all members on board.
- Doing the right thing in the right time is the culture we need on bridge which called “Accountability”.

“ When interviewed, Pilot 1, the Master, and the Third Officer all agreed that Pilot 1 was in direction and control of the vessel until he had completed the transit. Nevertheless, as noted in the ship’s SMS, the presence of a pilot does not relieve a bridge team of its shared responsibilities for safe navigation.”

- Understand the shared responsibilities cannot help the situation when they don’t know what to do in correct timing.
- They don’t need substantive input to the pilot 1 when there is no time, bridge team need to do substantive actions like “give the heading 180 degrees to quarter master directly” or “rudder angle ordered” to initial the turn.
- “Say what you want” is easy as long as bridge team have common understanding of their situation.
- This needs a seminar course in class room where every bridge team joint together to practice what is the right words to say in the right time.
- It is not “assertive” which is important to uphold one’s own right or thought.
- We need positive communication or Accountability.
- Positive communication is to release our worry inside our heart to someone who is responsible even it is not so correct or precise.
- The direct benefit of positive communication is we don’t need to worry any more for we had spoken it out. It is good for our mental health in every situation.
- For other member on the bridge, your worry is their responsibility. They will seek the way to help you, or they can prepare themselves for what they need to do for themselves by your positive communication (even it is foolishness in your professionalism).
- That’s the reason why we said positive communication is always good to everyone on the bridge.

“ Despite cultural differences or seniority, the Third Officer and others on the bridge should have been more assertive to let the pilot know the waypoint had been passed and turn missed. Had the bridge team been more assertive and notified Pilot 1 of the missed turn, there may have been enough time to avoid or minimize the significance of the grounding.”

- It seems assertive can help the situation a lot. But, what is “assertive”?

- Assertive is having or showing a confident and forceful personality. For ex. patients should be more assertive with their doctors.
- If the communication line is from Doctor to patients, it will be more direct and natural because this direction is from more power or authority side to less side which we call it instruction or order.
- Now if the communication is from a patients to a Doctor, the communication is from a less professional or authorized personal to a more professional or authorized personal which we called it “assertive”.
- Actually, in a bridge team every member is important, no assertive is needed. It is your job, not your attitude we need.
- Also, mariner should set their mind correctly. We are not assertive to anyone. We just do our job on bridge.

6.6 Steering con in Yangtze river

In the longest river of China, Yangtze river, the cruiser ship is navigated by the master himself. Although with all master’s knowledge and seniority on board such vessel, he communicate his concern of the vessel while it is underway is in a peculiar way to an ocean going seaman.

Figure 6 – 01, “Steady as she goes” by thumb finger up

The quartermaster steering the wheel maybe is his duty officer in apprentice. There are no rudder order, heading, course given by the master and no reply received from the quartermaster. The navigation is done by silent mode. As figure 6 -01, captain ahead looks outside the window with his thumb finger up. This is the sign language of “Steady as she go” or steady on current heading. Keep this

heading by your judgement of rudder angle and yawing rate.

Figure 6 – 02, “turn to starboardside” by index finger up

In figure 6 -02, captain raised his index finger up to give the order to turn the vessel to starboardside direction without specific rudder angle or heading instruction. As we can see from the picture, captain have no compass card to monitor nearby his standing position, he can only looking outside the window by his eyes to judge where to turn and turning to which direction, no compass degree been given.

Figure 6 – 03, “turn to portside” by 2 fingers up

In figure 6 -03, captain raised his 2 fingers up to give the order to turn the vessel to portside direction without specific rudder angle or heading instruction. This process is throughout the navigating period without any sound. Maybe in an emergency situation, Captain may wave his hand with finger to indicate his agitated state which we don’t know here.

Yangtze river is not always smooth and straight. There are must be a lot to

communicate if the passage is winding and turning. However the subtle change in rudder's response and turning rate are subject to change in very short interval which make captain and quartermaster hard to keep in the same pace in their maneuvering steps. Even the captain cannot remember what course it is in the passage, he can only give quarter master a direction to the left, right, or straight ahead. What captain saw the riverway is a vision spread ahead the vessel rather than a clear line on the chart. There must be a agreed turning rate between captain and the quartermaster which they had cooperated before or a common rate of turn used in this cruiser ship.
Although lots concern goes without saying in Yangtze river, they are working in the same goal. The paces of maneuvering had coordinated long before an outsider arrived.

6.7 Self-training of assertive

Although our recommendation is "This needs a seminar course in class room where every bridge team joint together to practice what is the right words to say in the right time." But as always we cannot wait till that day had come, we have to practice the assertive immediately as it is needed in every day's watch.
We all have job to do when we stand on the bridge. On the bridge is a very precious time we had in our career. Even if we are only a small and young cadet, we come to the bridge already have with some knowledge of what will happen on the bridge, also the working procedures are no secret to us. It means we only need more practice than we can be a competent OOW immediately. When to start the practice is best to an OOW ? Why not now ?

- ✧ Assume we are the ship handler now.
  No matter who is in the con of vessel now, pilot or Captain.
  Assume I am the pilot or captain now.
- ✧ Estimate the WOP and call out the rudder order in heart when vessel arrived
  Use positioning EBL skills to monitor vessel's position before turning.
  When ownship arrived Wheel over Position, call out rudder order in heart.
  Check the timing and rudder angle used by pilot or captain with the one we given in our heart.
  Take a close observation of the situation vessel had now to understand the reason why they give different prospect as we did in heart.

- ✧ Follow up every timing in heart of “ease the rudder”, “counter rudder”, “slow down the turning rate”, “adjusting the drift angle or COG by increase speed, or straight ahead, over-turn the course, or reduce engine to drift more.”.

This is a mental exercise we practice in heart. The rewards come when we can match the pace and magnitude of pilot, or captain’s maneuvering. This will give us an incredible confidence in our ability of maneuvering the vessel.
The theory may be simple but its power is immense. That’s why we devoted one paragraph to emphases it. We should make best use of our time on bridge.

5.5 Effective communication on bridge

5.6 conclusion

➢