Case study for onboard safety meeting
Case study no. 31: Task overload

Please read the below story of an incident. Keep our company's standards and procedures in mind while reading to compare with the actions of the crew below as we will discuss the factors which led to the incident occurring.

A chemical product tanker had been fixed on a voyage from Rotterdam to Karmsund, Norway. Half the vessel's crew was changed at the loading port. The period in port was hectic due to loading, bunkering and the required familiarisation for the sign-on crew. The ship then left – on time – despite the crew not being fully familiarised.

Three hours before reaching the intended pilot boarding area in Western Norway, the inexperienced and newly appointed 3/O started his watch as OOW. He arrived on the bridge early to prepare the required checklists and to ensure a proper handover. An AB joined him as lookout. During the handover; the C/O reminded the OOW to contact the local pilot station and VTS prior to entering the area. The C/O also informed the OOW to give the Master a call well in advance of the pilot coming onboard.

After several attempts on the VHF, the OOW was finally able to contact the pilot station; reporting ETA at the pilot boarding ground in 1 hour. 30 minutes into the watch the OOW spotted two fishing vessels, 2-3 nm away, crossing from starboard. The course was altered to starboard in order to increase CPA of these vessels. At the same time, the Electrician entered the bridge. The ship's VHF had lost position input, resulting in a continuous alarm, and the Electrician had been called to fix it. The OOW was distracted by the work of the Electrician and the annoying sound from the VHF. The OOW called the Master to inform him about the approaching pilot boarding. The Master advised that he would be on the bridge in about 10 minutes. As the vessel was still clearing the fishing vessels, there was a coaster coming from starboard. This coaster was not acquired as an ARPA target.

Around the same time, the OOW received a call from the pilot station, stating that the pilot would not be boarding at the charted boarding ground, but much closer to the inlet of the fjord. The OOW informed the master about the changed boarding ground. The OOW maintained the speed and then started to calculate the new time of arrival at the new boarding ground. Following the change in pilot boarding position, the Master delayed coming to the bridge, however, since the Master had previously said he would come to the bridge in 10 minutes, the OOW expected him to appear shortly.

Due to position fixing and extensive communication taking place on the VHF, the OOW did not pay enough attention to the approaching coaster from starboard, nor to the efforts made by the coaster to communicate with the chemical carrier. At the same time the lookout reported several small fishing vessels on the port bow. The vessel was now entering the VTS area and several attempts were made to contact the VTS. However, there was no answer even after 3-4 attempts.

The OOW's intention now was to get back on course. However, there was another cargo vessel coming out from the fjord and it was hard to see if she would turn coming towards the chemical carrier or not, and, therefore, the OOW waited with his turn. The OOW suddenly realised that his vessel was on a collision course with the coaster which was now very close. Manual steering and an immediate course change was ordered to try to avoid a collision. The ship started to turn, but unfortunately it was too late and shortly afterwards she collided with the coaster.

Due to the extensive numbers of tasks and assignments given prior to the collision, in combination with the traffic situation in the area, the OOW did not get the sufficient situational awareness needed in order to get the overview of the surroundings and the situation.

How to improve by lessons learnt

Based on the case and the keywords, you should now perform an onboard risk assessment of the incident and the factors which led to it. Bear in mind our vessel's procedures.

You can also discuss the keywords below in order to determine onboard areas/topics for increased awareness:

- Onboard **Familiarisation** and crew change. Do we have adequate solutions/ procedures/ checklists for such? Any additional areas not covered under current familiarisation process (onboard and/or onshore) in case of crew change?
- **Bridge Resource Management and task overload**. How is the bridge organised dependant on the changing risk for the different areas? What tasks are associated with the OOW and what is additional tasks that should be covered by others? How do YOU tell your superior about task overload? Internal communication (e.g phonecalls to the bridge/ engine room) vrs physical presence. When do you ask for assistance?
- **Differential of risk** dependant on area you are in. E.g manning level in accordance with risk zone (red, yellow, green risk areas), experience present on bridge, speed, alertness of resting crew, fixed watch system-or should it change to reflect the navigational complexity in the area you are in?
- **Reduction of speed** – company policy, vessel policy, expectations from the Master. To clarify: When do we reduce speed onboard our vessel? When do we call the Master to the bridge? (Colreg Rule 6 – Safe Speed)
- **Alarm management**, target acquisition and Electronic chart system – is the system set up in a way that would benefit the OOW? Know your settings (TCPA, CPA, PROXIMITY ALARM settings) How is electronic charts used as support for your paper navigation?

1 What factors contributed to the incident in the above case?

2 Risk Assessment: Could some of the factors identified be present on board your ship? (How frequent could they be present? How severe could it be if they are present?)

3 In the risk transfer zone (yellow and red), what would you suggest as measures to control the risk? Any additional barriers that could be introduced?