The Swedish Club

MONTHLY SAFETY SCENARIO

JUNE 2024

Collision in congested waters

Vessel A departed at midnight. Once the pilot had left the vessel it increased its speed to 17 knots. Visibility was about 3-4M with westerly wind force 3 and calm seas. There were a number of commercial vessels and fishing vessels in the area.

The Second Officer was acting as OOW, assisted by a lookout. The vessel was on autopilot and both radars were running. The S-band (10 cm) was primarily on three miles range, north-up with the centre offset to give a better view ahead and the X-band radar (3 cm) mainly on six miles range.

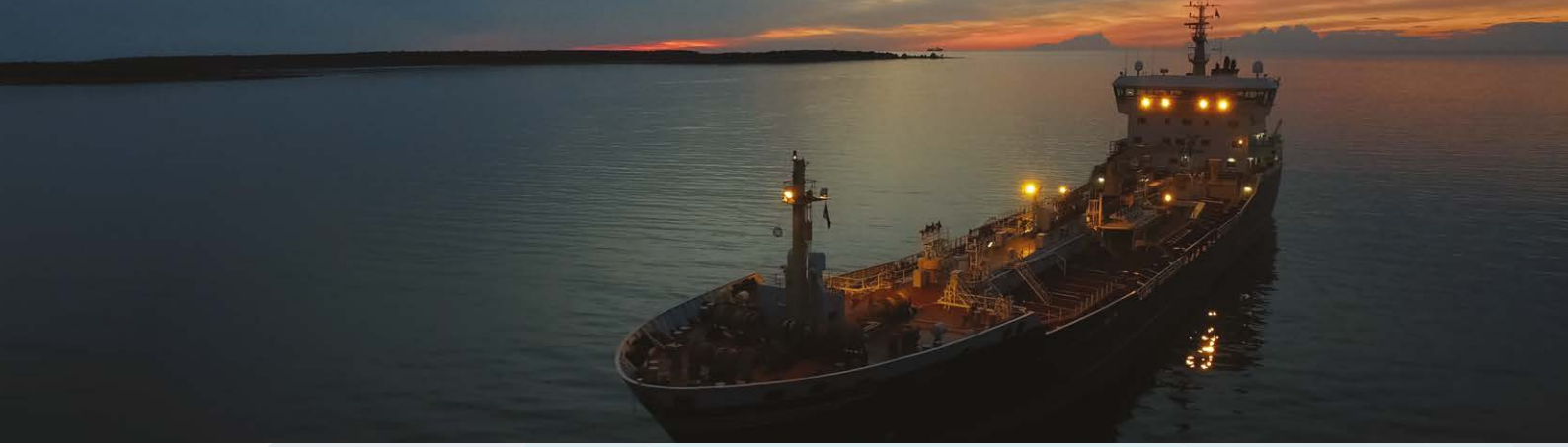
The Master completed the night orders with his customary message and then left the bridge to get some rest. Before leaving the bridge he observed fishing vessels to starboard in the distance and also some larger merchant vessels. His assessment was that none posed any concern.

Over the next 30 minutes the Second Officer altered the vessel's heading on the autopilot several times. He began plotting Vessel B which was on the portside at a distance of about 10M. The ARPA data indicated that vessel B would pass astern.

There were also two merchant vessels on his starboard side crossing to port with a CPA of about 0.7M and 1.5M – these were the Second Officer's main focus. These were coupled with an unknown number of fishing vessels in the area that seemed to be stationary. The Second Officer made a number of small alterations on the autopilot to port to stay clear of the fishing vessels.

When vessel B was about 4M away the Second Officer could see its lights. He didn't take any visual bearing but monitored it on the ARPA. Still unconcerned he focused his attention on the fishing vessels and merchant vessels on the starboard side. He did not notice any change in the CPA for vessel B.

It is the evidence of the Second Officer that at about seven minutes before the collision at 0355 he ordered the lookout to hand steer the vessel as close as possible to the fishing vessels. He believed this would give him more room for



vessel B. At this time the OOW was also handing over the watch to the 4-8 Officer.

The Second Officer ordered starboard 10 and to steer 074 degrees. He was then concerned that this was too close to the fishing vessels and ordered 070. At the same time vessel B's bow collided with the port side of vessel A. The angle between the vessels was about 90°.

The Second Officer did not use any signals before the collision such as the whistle, aldis lamp or VHF. Vessel B did not use any warning signals either. About 10 minutes before the collision vessel B made an alteration 10° to port.

Consequences

When plotting both vessels it is evident that if the vessels had maintained their headings 10 minutes before the collision the collision would have been avoided. The main fault of this collision remains with vessel B, but if vessel A had been more proactive the collision could have been prevented.

Preventive measures

Even if vessel B is the give way vessel, all traffic needs to be monitored by A. It is essential to plan ahead and be prepared for different scenarios. Be proactive and carry out an early alteration before a situation is real. Small alterations are very difficult to detect so should be avoided if possible. It is effective to use light and sound signals if the other vessel is not doing anything to avoid the collision. The Second Officer did plot the other vessel but this did not prevent the collision. This means that the officer did not have complete situational awareness.

The collision happened at the time of the normal watch handover at 0400. It is critical to not lose focus while handing over the watch. The watch should never be handed over while a manoeuvre is being completed.

Questions

When discussing this case please consider that the actions taken at the time made sense for all involved. Do not only judge but also ask why you think these actions were taken and could this happen on your vessel?

1. What were the immediate causes of this accident?
2. Is there a risk that this kind of accident could happen on our vessel?
3. What are our procedures for handing over the watch during a manoeuvre?
4. Does our navigation policy mention the practice of using small alterations?
5. Does our navigation policy address how the radar should be setup?
6. What are the concerns for having the S-band radar on the three mile range and the X-band radar on the six mile range?
7. What are the criteria's for the OOW to ask for assistance from the Master or another officer?
8. If there is a risk of collision when should signals be used?
9. How could this accident have been prevented?
10. What sections of our SMS would have been breached if any?
11. Is our SMS sufficient to prevent this kind of accident?
12. If procedures were breached why do you think this was the case?
13. Is there any kind of training that we should do that addresses these issues?
14. What can we learn?