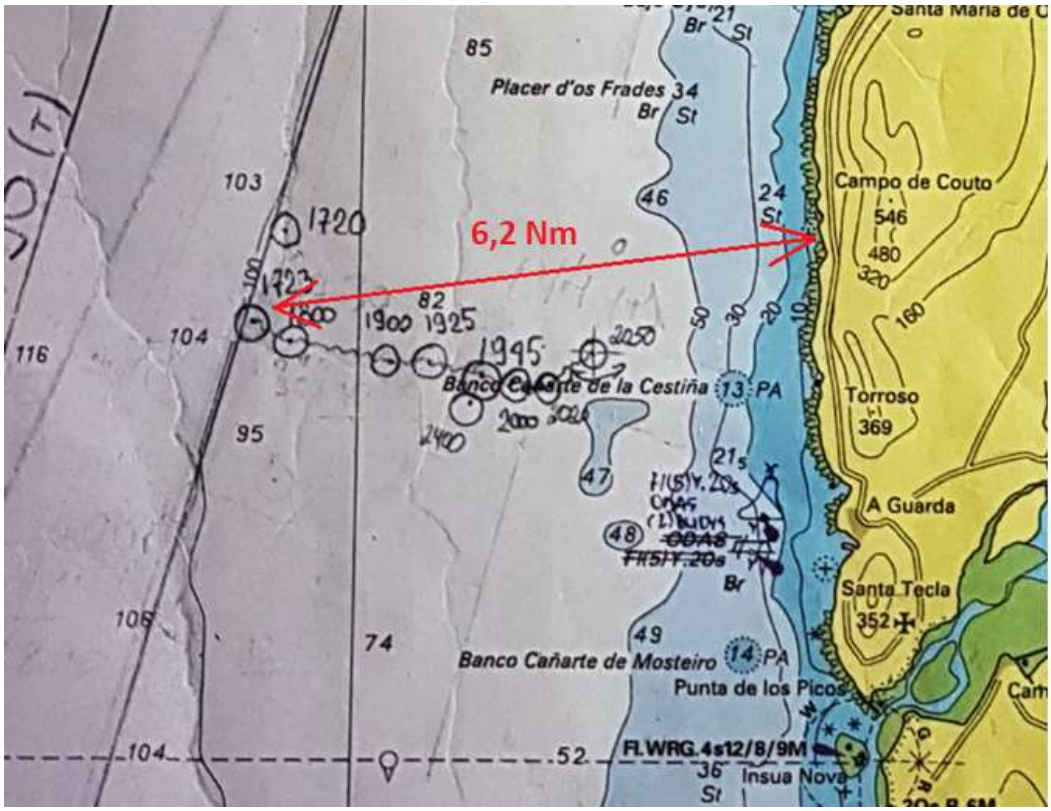
25th January 2018

To: Masters, officers and engineers.

NARRATIVE

One of our vessels faced main engine failure soon after departure from Vigo.

At 17:17 LT, the ME slowdown because safety system has been activated by high water outlet temperature. A duty officer on the bridge received telephone call from a duty engineer to reduce ME RPM immediately. Shortly later, the ME was stopped and the vessel started drifting, however still was proceeding through the water to the SSW. The master was informed when the vessel was stopped. The distance to the nearest Spanish coast was around 6,2 nautical miles. The weather was good with wind – SSW 4 and Sea – SSW 3.



Several minutes after stoppage, the master was informed by engineers about its reason – cracked cooling jacket in ME unit no 5. Knowing that repairs will take at least 4 hours, it has been decided to immobilize the ME, and start dismantling unit no 5 in order to replace the broken cooling jacket.

Neither DPA / Technical Superintendent nor VTS was informed about stoppage / ME problem, even though the vessel was very close to shore, at Spanish territorial waters.

After 40 minutes from stopping the ME, the vessel was called by VTS and asked to report the reason of drifting. The master replied that he was waiting for instruction from Charters (hiding the real cause of drifting). The VTS requested to proceed outside territorial waters (12 NM) to continue drifting.

Finisterre MRCC called the vessel around 19:00 and requested to stop drifting in that area (vessel was less than 5 Nm from shore) and proceeded towards West. VTS informed the vessel also (and several times later) that as per Spanish Maritime Authorities regulation drifting in Spanish territorial water is not permitted.

The master notified the DPA / Technical superintendent about the case around 19:15 (two hours after the ME malfunction) when the vessel has been targeted by VTS / MRCC.

The MRCC / VTS were informed about the ME malfunction and ongoing repairs. The master was asked to consider dropping the anchor in order to stop drifting towards shore.

Finisterre MRCC called the vessel several times asking questions about ship status, informing about ship's drift and requesting to leave Spanish waters.

Having in mind "unclear" communication with the vessel, immobilized ME and decreasing distance to shore, the MRCC sent a tug and a rescue boat to assist and put a helicopter on standby.

Fortunately, after three hours drifting, the vessel safely anchored 2,5 Nm off nearest shore. The ME was repaired, the vessel leaves Spanish territorial water and continued her voyage. The Spanish tug was assisting the vessel during entire stay at anchor.

As an outcome of the case, the Spanish Maritime Authorities imposed a fine to the master and charged the company for the entire operation. The case is being now monitored by the company's local P&I representative.

ROOT CAUSE / CONCLUSION

Immediate cause:

- ME malfunction due to broken upper cooling jacket in cylinder no.5. At this stage and without specialized expertise, it is hard to determine what was the cause of the cooling jacket damage (material defect or excessive wear and tear).

Root cause

- Inadequate inspection or monitoring
- Inadequate assessment of the emergency situation and associated risks.
- Inadequate or lack of communication.
- Inadequate or lack of leadership and supervision from the ship's management staff.
- Inadequate review instructions.
- Lack of experience.

Very poor planning of relatively minor main engine malfunction repair resulted in escalation of dangerous situation and consequently numbers of wrong decisions made by the Shipboard Management Staff.
Inadequate communication, lack of assessment and proper supervision of the overall situation just increased authority's attention.

WHAT WENT WRONG

Neither DPA nor technical superintendent were timely informed about the ME malfunction when it occurred. First notification to the Company was almost 2 hours later. Thus, the shipboard management team deprived itself of shore side assistance in dealing with the ME malfunction / handling the case with local authorities.
The Master's reluctance to contact Office DPA immediately the emergency occurred, is strongly indicative of his desire to avoid close attention from the office side while he and Chief Engineer tried to resolve the situation.

Disconnection of the faulty unit and running the ME in emergency mode (to leave territorial waters / increase distance from shore) was not taken under consideration by ship's management team.

The Master was fully aware that the vessel must be stopped. Nobody decided to alter the course to West to increase distance to shore.

A decision to stop the vessel in Spanish territorial waters / very closed close to shore was taken too hastily and without consolation with technical superintendent / DPA.

A decision to drop an anchor (or even use them to reduce drift) was taken very late and evidently after such suggestion from VTS / DPA. The anchor was dropped at 20:50 – 3,5 hours after ME malfunction although it was possible to drop the anchor much earlier at least at 19:00 when the depth around the vessel was 80 meters.

There was no any evidence that the risk of such critical operation (repair / immobilization of ME few Nm from a shore / navigational dangers) was assessed and adequately addressed.

Spanish VTS was not informed about the ME malfunction. Moreover, the master being aware of the nature of ME malfunction (and expected time required to deal with the malfunction) misled VTS when he was asked for the reason of drifting in territorial water.

The Master showed a fundamental misunderstanding of the principles of stopping the vessel and her anchoring given the weather, tide, depth of water and the proximity of the Spanish coast.

LESSON LEARNED

The company (DPA / Technical / HSEQ superintendent) **MUST BE NOTIFIED BY PHONE IMMEDIATELY** once any accident or incident occurs. It includes serious emergencies (such as collision, grounding, fire etc…) and incidents such as power generation plant, propulsion and steering gear malfunction which. Company's procedures contained in Shipboard Emergency Manual must be strictly followed.

Each malfunction which resulted in (or may result in) ME immobilization MUST be reported immediately to Technical Superintendent or DPA, regardless if occurred in open sea or confined waters.

Ship's crew must not commence any repair which may immobilize the vessel without consultation with the technical superintendent and his approval. An exhaustive risk assessment must be issued and approved by the Master.

A vessel must not be slowed down or stopped without OOW or Master's approval. It is especially important in heavy traffic areas and in coastal navigation.

Should any ME malfunction occur while the vessel is: in territorial waters, traffic separation scheme, in proximity to navigation dangers, ship's crew must do their utmost to evacuate the vessel from above mentioned areas and seek safe place to undertake necessary repairs (open waters away from shore, dangers to navigation / safe anchorage). It is essential to leave territorial waters.
In such case, all scenarios are to be taken into account to avoid stopping the ME. Such scenario includes (but is not limited to):

- disconnection of faulty ME unit
- running ME in "emergency" mode from local engine control station
- running ME with reduced speed with constant monitoring of parameters which are in question

If ME stoppage is unavoidable, lay a vessel on such course to increase distance from shore / any dangers to navigation (when proceeding through the water until stop). Always consider safety of navigation.

When ME is immobilized and anchoring is impossible use all possible means to reduce drifting towards shore / dangers to navigation. E.g. lower anchor to use it as sea anchor, use thruster to reduce drift, etc…

If a vessel navigates in coastal waters, a VTS shall be notified about all problems with propulsion/steering which restrict ship's maneuverability and / or result in its immobilization.

Chief engineer is to prepare clear instruction with procedure on how to disconnect a faulty ME unit and run the ME without it. The instruction is to be posted in ECR.

Engineers must be fully familiar and well trained on how to disconnect a faulty ME unit in order to run the ME in emergency mode if required (to evacuate territorial waters, separations schemes and areas danger to navigation).

All members of the shipboard management team are to complete special, one-day seminar / training related to Crisis Management and Navigational Incident awareness. It will be arranged by the company.

ACTION REQUIRED

1. Hold a special safety meeting and discuss this case with all crew.
2. Revert with scan of "clear instruction on how to disconnect a faulty ME unit and run the ME without it" and provide a picture showing that it has been posted in ECR.
3. Familiarize all engineers with above mentioned instruction and revert with list signed by all participants.

SIEM Ship Management
HSEQ Department