INTERNATIONAL MARINE TRANSPORTATION

SAFETY ALERT BULLETIN

NUMBER: 02/2015

Key findings – Navigation related incidents

THE INFORMATION BELOW IS PRODUCED BY IMT AND IS BASED ON ANALYSIS OF SOME OF THE RECENT NAVIGATION RELATED INCIDENTS.

Incident statistics reveal that navigation related incidents in the year 2015 have exceeded the trend experienced by the industry in preceding years.

In most cases, resources and tools that could have been utilised to avert such incidents were available. However, they were not effectively utilised by the bridge team.

Based on analysis of such events, below findings have been observed:

A. Passage planning meeting does not encompass key aspects

- ❑ Step by step walk through of the entire passage including identification/mitigation of all possible hazards.
  - During all stages, is the vessel transiting at a safe speed?
  - Have critical passages been identified and associated hazards mitigated?
- ❑ Officer's involvement and task allocation.
  - Do all navigating officers actively contribute in the pre execution meeting?
  - Does each bridge team member understand his roles and responsibility during a passage especially during enhanced watch keeping levels?

A pre-passage briefing prior to the commencement of a voyage forms a key aspect of safe navigation and must be conducted in an earnest and detailed manner. The briefing/meeting must simulate the entire passage on paper or ECDIS and ensure that all hazards are highlighted.

We strongly urge vessel operators to ensure that SMS includes requirement to carry out such pre- passage briefings prior to commencement of a voyage and critical passages.

B. Ineffective use of available navigational aids

- ❑ Parallel indexing, visual bearings, Swing circle etc.
- ❑ Navigational advice provided by VTIS.
- ❑ Trial manoeuvre function within ECDIS/RADAR.

The above navigational tools have proven to be very effective in ensuring safe navigation.
As part of on-board training/navigational audit, Master/Superintendent should emphasise the use of above mentioned tools and verify implementation.

C. Ineffective utilisation and management of alarms and alerts

- ❑ Collision avoidance alarms such as CPA/TCPA/BCR.
- ❑ Off track alarms and shallow water alarms.

Most navigation related incident reports indicate that alarms were muted or incorrectly set at the time of the incident. Procedures ensuring effective management of alarms on radars, ECDIS, Echo sounders etc. should be in place. In addition to the periodic checks stipulated by the operator, this process should be verified during navigational audits.
Electronic aids to navigation are equipped with a number of alarms and alerts, which if used effectively will ensure a safe transit.

D. Lack of Situational awareness

- ❑ Vigilance towards changing scenarios & developing risks – Assess, Analyze & Act
  - Is the bridge watch keeper distracted due to prevailing work load?
  - Setting of auto alarms to pre-warn on developing targets. e.g. not utilising auto-acquire target function in radar.

At times a vessel may encounter a scenario that may need a Last Minute Risk Assessment (LMRA). Such scenarios can only be detected through effective situational awareness.

Situational awareness can be enhanced with proper delegation, monitoring and feedback mechanism in place.

E. Inadequate Master/Pilot exchange process

- ❑ Pilot not absorbed into the bridge team
  - Are the pilot's intention and plans communicated to the team?
  - Is there a constant engagement with the pilot at all stages of the transit?
- ❑ Lack of information sharing
  - Are the manoeuvring characteristics/limitations shared with the pilot?
  - Is pilot's plan for tug engagement clear to the bridge team?
- ❑ Questioning pilots intentions when in doubt and intervening when required

Pilot, with his local experience and knowledge brings additional value on board. Hence pilot's effective integration within the Bridge team is necessary for safe completion of passage.
Over reliance on pilot's decision should be avoided. Operator must emphasise Master's responsibility and accountability whilst the vessel is under pilotage.

F. Ineffective Navigational audits

- ❑ Checks on behaviour based aspects
  - Are the officers complacent?
  - Are developing situations / risks being identified in a timely manner?
  - Are officers able to prioritise immediate concerns?
- ❑ Functioning of the team in real time scenario?
  - Is bridge team communicating effectively and working as one cohesive unit?
  - Do the junior officers have any inhibitions in questioning Master's intention?
  - Are capabilities to analyse VDR data used effectively?
- ❑ Reporting of navigation related Near misses
  - Is there a process? If yes, are these being recorded and closed out?

It has been noticed that behaviour based aspects are not being covered in a navigational audit program. This leads to unsafe practices not being corrected promptly.

Safe navigation can be achieved by the combination of:-

EFFECTIVE FUNCTIONING OF BRIDGE TEAM + ROBUST OVERSIGHT BY VESSEL OPERATOR

We strongly encourage all vessel operators to take note of the above listed findings and review their internal procedures for effectiveness.

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