



KISH P & I LOSS PREVENTION CIRCULAR KPI-LP-02-2012

Case: Grounding and subsequent loss of a container vessel

Location: Astrolabe Reef, Bay of Plenty, New Zealand, 37° 32.4'S 176° 25.7'E

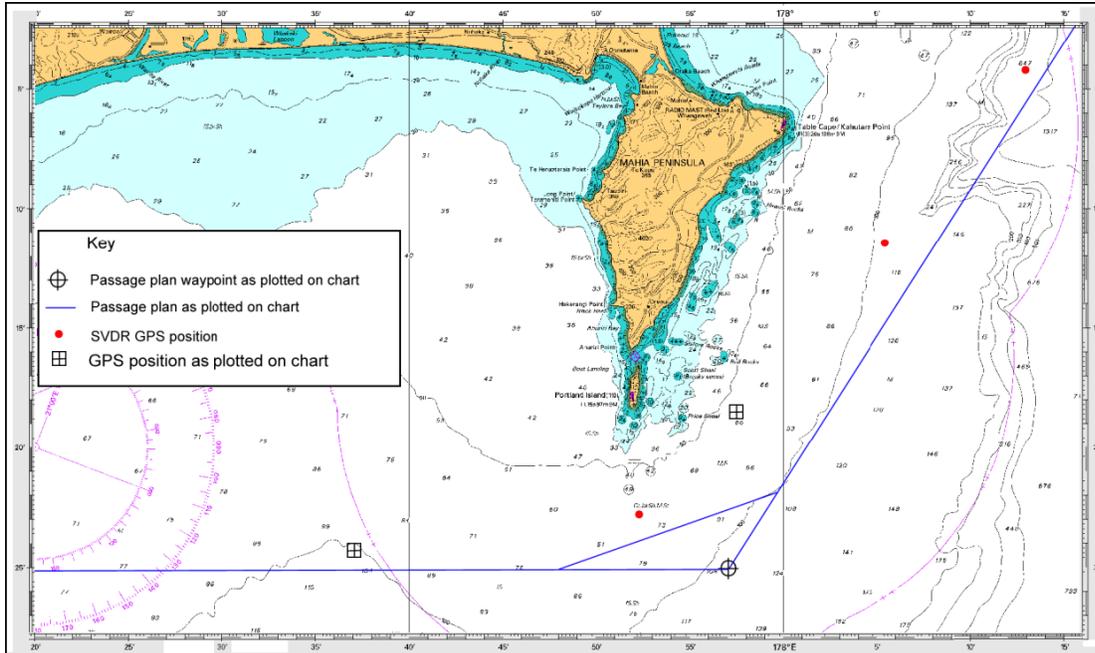
Time: 0214 on 05/10/2012

Damage: The hull was severely damaged during the initial grounding. The hull girder structure subsequently failed, leading to the vessel breaking in two pieces. The aft section moved off the reef and partially sank. Approximately 350 to 400 tonnes of heavy fuel oil were lost to the sea. Some containers were lost into sea too. No life injury.

The narrative:

A) The vessel being a container ship had a tight schedule, she had done two berthing & unberthing during the previous day. Arrival & departures have been during early & late hours of the day. *Fatigue factor*

B) The passage plan had been prepared but later altered/amended by the master so as to shorten the distance. *Commercial obligations-Compromising safety*

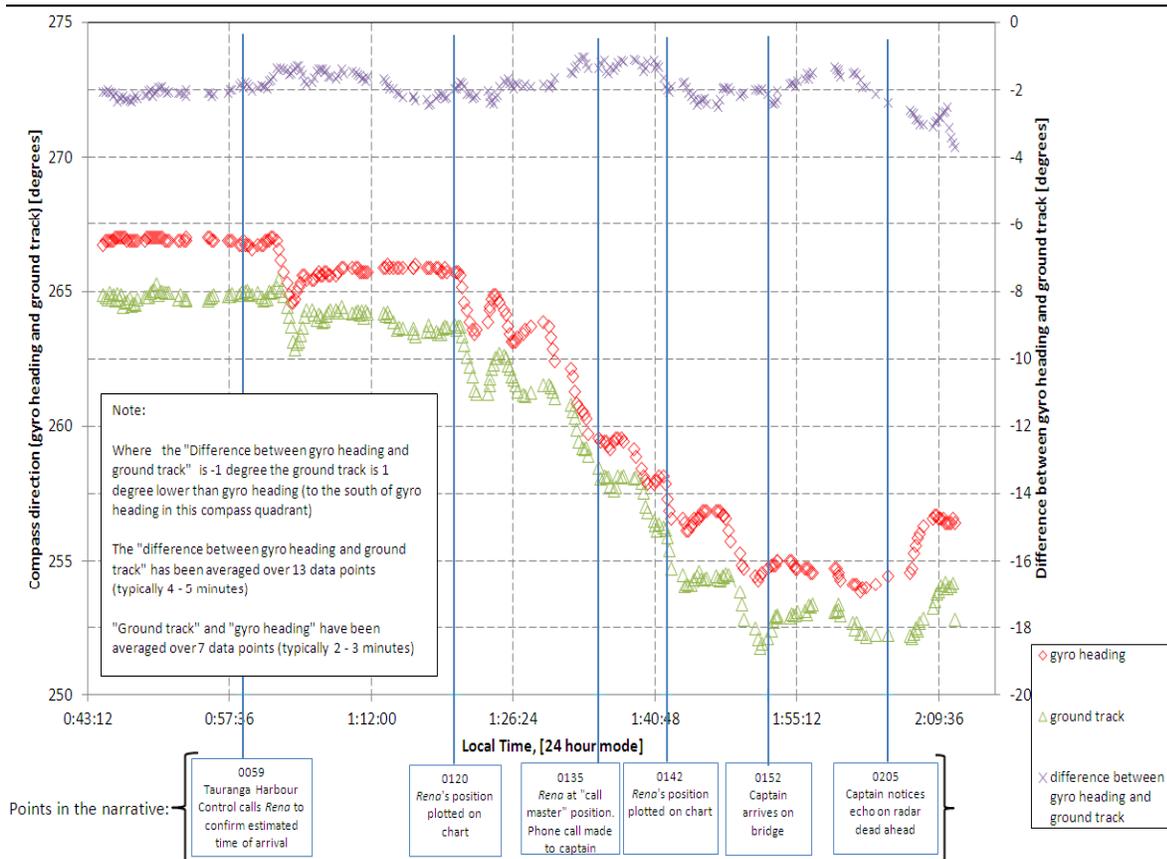


C) Positions plotted using GPS Fixes; mostly done by the AB watchman and checked by the OOW as necessary. *Probable un-systematic observation of regulations*

D) Master instructed OOW to navigate either side of the plotted course in order to evaluate the currents affecting; but did not state how far as a limit for being off the track. *Lack of reasonable/clear & justified instructions*

E) While changing charts; navigators failed to transfer the latest positions; so the off-track amount was yet to be grasped. *Failure to follow Chart Work Best Practices*

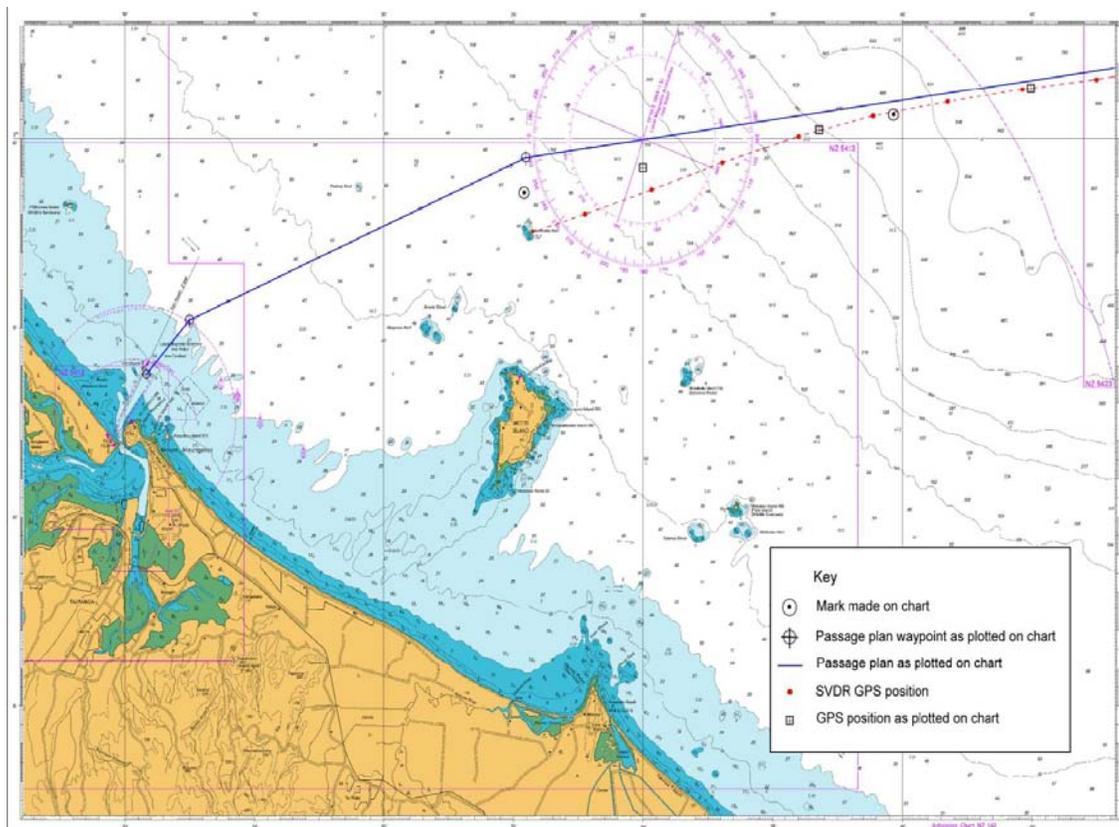
F) No systematic evaluation of drift was made. In the following figure having various data superimposed; it can be observed that the drift was growing to be gravely dangerous, but the navigators failed to perceive it. *Lack of proper workmanship*



G) The second officer had decided to pass one mile north of Astrolabe Reef. He considered this to be safe. *Under-estimation & Complacency*

H) Second officer had been using parallel indexing but when the master was called on the bridge; he switches it off to avoid busy screen. *Inadequate use of Nav-Aids*

I) At 0200 the master and second mate were on the chart discussing the arrival arrangements (which was a few hours later) so the AB did not plot the position on 0200. *Mis-understanding & Mis-conceptions about the priorities in operations*



J) At 0205 the master observed intermittent echos on the radar screen about 2.6 miles off , he and watchman checked with binoculars from the bridge & from the wing. But they did not see anything. *Lack of proper Look-Out*



K) At 0214 the vessel ran aground with 17 knots speed.

Lessons to be learnt:

- 1- Lack of look out is evident in the case. The watchmen should not be given additional tasks. Plotting position is a very delicate additional task and not for ratings really. The look-out should be un-distracted and kept as a systematic duty. There had actually been no proper look-out. The island is seen as an intermittent echo on the radar at last stages but the peril was un-detected. The navigational aids should be used to best advantage as a look-out means as well as anti-collision aid. There are possibilities of confusion when working with the equipment such as Radar so Understanding-the-Limitations should be a part of familiarization process. Too many electronic lines can make picture too busy & the small echoes inconspicuous. Inadequate use of facilities can lead to mis-apprehension of drift and a possible collision.
- 2- Passing close to islands requires extra precautions; if not the most important; surely vital to check the positions more precisely & by other means. Cross-checking the positions is a task which should be practiced as a routine work. Had they been checking the positions more frequently & precisely as well as by other means; they would notice the drift at earlier stages.
- 3- The chart-work principles were not followed. While changing charts, transferring the positions were not done. This could be a good indication that the ship is closer to danger than it was planned to be.
- 4- Issuing vague orders are to be avoided. Estimation of drift should be done by continuous monitoring of positions from a single source of fixes. Wobbling around the course laid down & not knowing what are the limits to this, can have grave consequences. The subordinates due to many reasons like lack of experience or skills & misunderstanding; should be given clear & concise instructions & possible doubts must not be left unclarified.
- 5- The under-estimation of dangers is a common error. Passing one mile from an island is not safe at all. After many passages with such proximate distances; one can easily get complacent & the practice of passing dangers closely becomes normal. We must educate the operators to have the danger alarm thresholds tuned in a reasonably cautious way so that repetition of some risks taken will not reduce sensitivity levels hence growing complacent and careless can be avoided. Acting safely must be a matter of principle.



- 6- Making short cuts in the courses laid down for commercial obligations and schedule upkeep can at times reduce safe margins to danger & precautionary areas. The problem of safety versus financial interests has always been there. Having due regard to the enormous burdens to be borne in aftermath of an accident may trim our decisions back on the safe track. A short cut will reduce steaming time by hours at most but grounding the vessel can bankrupt the owners and cost lives & sway careers jettisoned & awash.

- 7- The requirement of STCW & MLC(ILO) concerning rest periods is an all time regulation. It does not state if you are a container vessel or losing your schedule; you can dispense with it. Fatigue factor has to be considered as a paramount element in accidents so would be the lack of attention and delays in response time as influenced by frequent restless passages in a voyage.

