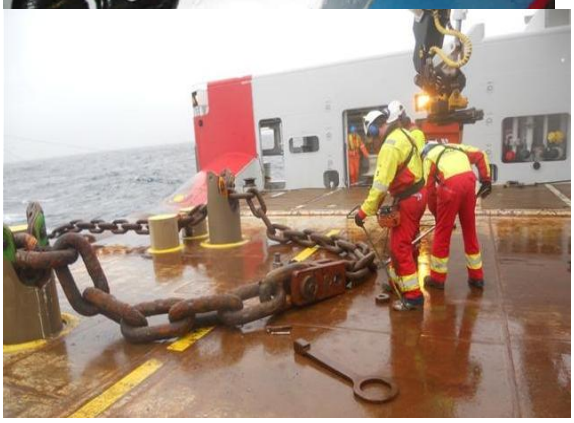
KISH P&I CLUB

KISH P & I LOSS PREVENTION CIRCULAR KPI-LP-75-2012
(Anchoring in Unfavourable Weather)

►Introduction:
There have recently been several severe incidents where anchored vessels have ended up dragging their anchors. The anchors are reported to have been lost & damaged to the extent beyond repairs. Consequentially the ships have been endangered due to bad weather & proximity of dangers, shoals & confined waters. This circular is to highlight some of the issues surrounding anchoring operations in adverse weather conditions.

►Collected experience from previous casualties:
It is inevitable that vessels may be required to anchor off shore at more exposed anchorages whilst waiting for a berth to become available. The vessels may be at such an anchorage for days or even weeks and will be exposed to wind and waves.
One of the most crucial factors identified during the analysis of the incidents is the importance of making the appropriate decisions in time when the weather is deteriorating.
Seafarers are often taken by surprise by deteriorating weather and fail to prepare their vessel for such a situation. Several important lessons can be learned from the two incidents extracted from reliable sources & described below:

Case one-Collision at anchorage:
A bulk carrier (vessel Alpha) collided with another bulk carrier (vessel Bravo) while dragging its anchor in strong winds. The two ships were anchored at an exposed off shore anchorage.
During the morning in question, a southerly weather front came through the anchorage changing the wind direction from off to onshore. At 0900, the OOW on board vessel Alpha noticed that the ship was dragging the anchor. The master was informed and he decided to weigh anchor and depart the anchorage at 0913.
However, vessel Alpha's crew encountered difficulties in weighing anchor. During the anchor retrieval process the vessel drifted towards vessel Bravo, which was anchored to the north.
At 0935 vessel Alpha pitched heavily, resulting in the propeller coming clear of the water and the main engine being shut down by the over-speed trip. Vessel Alpha's main engine was restarted; however, it was too late to avoid a collision and at 0939 the vessel collided with vessel Bravo. The two ships moved apart and then made contact a second time before vessel Alpha finally made its way clear of the other vessel.
The following causes contributed to this incident:
(1) The ships in the anchorage were anchored too close to each other.
(2) Vessel Alpha's OOW did not use all available means while keeping anchor watch. This led to his failure to identify the change in the ship's position until 40 minutes after the ship had begun to drag its anchor. Hence the decision to leave the anchorage therefore came too late.
(3) Vessel Alpha's master did not increase the scope of cable laid out, either prior to or on the day of the incident despite the weather reports and the changing weather conditions at the anchorage.



Case two-Grounding following dragging of anchor:
A strong gale passed through an exposed anchorage in the southern hemisphere, producing 50 knot south easterly winds and 7 metre waves. The gale created dangerous and difficult conditions at the anchorage, particularly for lightly ballasted large bulk ships with limited manoeuvrability.
The day before the incident occurred there were 56 ships at anchor waiting to enter the port. In response to the forecast gale force winds

two ships decided to depart the anchorage. Later that day and during the night further ships put out to sea. By the next morning there were only 9 ships out of the original 56 left at the anchorage. At least 3 ships experienced difficulties in manoeuvring or were dragging their anchors during that morning.
One ship was driven ashore by the weather and grounded. Another had great difficulties manoeuvring whilst only 0.7 nm away from the shoreline and nearly ran aground. A third ship was unable to weight anchor and dragged towards the shoreline.
The investigation undertaken by The Maritime Authority found that the grounding of the bulk carrier resulted from a series of erroneous judgements and decisions made by the master. The most significant being:
(1) The master's failure to realise the potential impact of the weather forecast for the anchorage for that particular day;
(2) An initial decision to ride out the gale force winds at anchor; and
(3) A decision not to ballast the ship for heavy weather.

Case Three--Collision at anchorage due to dragging:
A bulk carrier dragged her anchor & collided with a general cargo vessel, both in ballast & anchored in close proximity; about 8 cables from each other. There were plenty ships at anchor in a congested area. The area being in Persian Gulf mainly with fair to moderate sea conditions but occasionally during winter months the onset of gusting winds such as Shamal from N to NW or other local winds of variable directions of blow were expected. The wind at that particular night reached a speed of 47 knots.
The bulk carrier realized the drag & tried to move away by weighing anchor. He attempted calling the other ship apparently with no reply. The VHF channel had been very busy as many ships started dragging & numerous communications between ships & the port authority were going on. The general cargo ship became aware of the situation but on the conception that the other ship is moving, as observed her propeller in motion.
Both of them reacted quite late & the stern of the bulk carrier came in contact with the bows of the general cargo & apparently the propeller and rudder of the dragging ship (bulker) got entangled with the anchor chain from the general cargo vessel.
They kept on banging onto each other until at last the general cargo vessel let go of her anchor & chain from the bitter end, after which the ships separated & moved away.
There were numerous damages on both ships & one anchor was lost completely.
The findings were:
(1) Apparently there was a weather forecast for the gusting wind conditions but none of the ships took proper/early/evasive actions against;
(2) Both ships blamed each other for not replying to the VHF calls or having a proper anchor/bridge watch-keeping;
(3) A decision to take action was taken quite late by both ships as the dragging by the first one started some time before anyone does anything;
(4) A decision to ballast the ship for heavy weather -at least by the bulker- was not taken;
(5) The engines on both ships were not as ready as they should have been for encountering strong wind & gale conditions- the notices they kept on, were not really short-;
(6) The VDR on the bulker was not operational & on the general cargo vessel had connectivity problems to the radar in particular so no proper & detailed information for evaluation & cross-checking of the statements could be retrieved;
(7) The port authority was not prepared for such weather conditions & could not render any assistance to the vessels within the anchorage and under its authority.

►General Recommendations for similar cases:

- ✓ A good anchor watch should always be maintained and main engines should always be available for use when at exposed anchorages. Weather conditions may deteriorate at short notice;
- ✓ Regular position checks using all available means including visual aids, GPS, ECDIS and radar;
- ✓ The time available to react based on the limitations of the anchorage and nearby hazards should be estimated & borne in mind;
- ✓ The weather & associated forecasts should be monitored;
- ✓ Communication watch and registration of information received from shore is very essential. It is also important to bear in mind that talking on the VHF in many situations may waste time & create confusions & therefore not to be relied upon.
- ✓ The level of experience of the bridge team;
- ✓ The level of experience of the anchor party/team;
- ✓ The load limitations/design & capabilities of the anchoring equipment;
- ✓ In the event that rapidly deteriorating weather is forecast, the Master must make timely decisions whether to:

• take on heavy weather ballast before conditions deteriorate
• deploy an extra anchor
• pay out more anchor cable
• weigh anchor and depart the anchorage
• slip the anchor cable if necessary
• call for tug assistance
• monitor the situation and let the vessel drag in a controlled manner through the anchorage.

- ✓ Emphasise on the importance of detailed planning and risk assessment of the operation when vessels are anchoring;
- ✓ The contingency plans are as always very crucial in these situations;
- ✓ Knowledge of the ship's manoeuvring characteristics and the particulars of the anchorage are very important;
- ✓ Staying at anchor for a relatively long period may slacken the workmanship standards on board & bring about tendencies for complacency; the masters should use any possible means of motivation to instigate alertness & abiding by the various Safety Management System procedures amongst which the requirements of the bridge procedure guide are prominently vital & related to the issue.
- ✓ It is a good practice to promulgate various related accident investigations within the companies & various fleets in order to raise awareness & clarify elder conceptions concerning the anchoring operations as many of today's design & development strategies are different than that of earlier categories of the devices.