

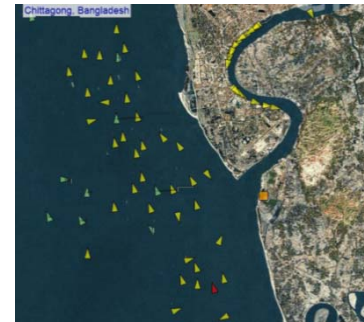
## Chittagong, Bangladesh – risk of collision and grounding

### Background

Information received from Gard's contacts in Bangladesh indicates that accidents involving ships in the Bay of Bengal, and the outer anchorage of the Port of Chittagong in particular, have increased dramatically. Dragging of anchor due to strong underwater current at the outer anchorage, particularly by vessels drawing a deeper fresh water draft, is a common occurrence. In some instances, vessels attempting to cross the bow of an anchored vessel at close range have been involved in collisions. Common factors behind the incidents include incorrect use of anchoring space and underestimating local conditions such as wind, tides and currents.

### Special conditions at Chittagong

The Port of Chittagong is the principal seaport of the People's Republic of Bangladesh, handling some 92% of the country's import-export trade. The port is situated in the lower section of the Karnaphuli River. The outer anchorage of the port lies in the Bay of Bengal, immediately outside the Karnaphuli River entrance. The seabed at the outer anchorage is silted up by soft mud, making the holding conditions fair, that is, neither good nor poor. Spring tides at the outer anchorage are very strong (6 to 8 knots) and may be even stronger during river floods. As such, a ship at anchor can be quite vulnerable if the holding ground is fair and the anchorage is exposed to high winds. Such conditions may cause the vessel to yaw wildly about the anchor and break the anchor out of the sea bed.



With the Patenga light beacon bearing more than 055°, the seabed is soft mud and vessels are liable to drag anchor. With the Patenga light beacon bearing less than 055°, the holding ground is relatively firm but attention must be paid to the strength of the ebb tide<sup>1</sup>, especially during the monsoon months (normally June to November).

### Factors to be taken into consideration

1. During spring tide/river floods/foul weather, vessels travelling at under 7 knots will not normally be handled and all such vessels will be classed by the local port authorities as grade II for operational purposes. Agents of these vessels are required to consult the port authorities well in advance.
2. Vessels entering or leaving port must have full power on the main engine; both anchors with full length of chain must be available for use at all times.
3. Ship Masters
  - are required to anchor well clear of the "prohibited anchorage";
  - must not anchor their vessels near the river entrance;
  - must manoeuvre with great care while embarking/disembarking pilots;
  - must note that strong tidal conditions prevail at the outer anchorage and utmost care must be taken while manoeuvring, anchoring or heaving anchors;
  - should pay out at least nine shackles on deck or more depending on draft and under-keel clearance;
  - should cast off lighter vessels alongside if dragging is suspected;
  - are advised to maintain watches on the forecastle and poop deck while the vessels are at the outer anchorage;
  - approaching Chittagong Road are advised not to attempt to cross bow of vessels at anchor/underway to avoid a collision due to the prevailing strong current at the outer anchorage. However, if it is inevitable to cross, ship Masters may do so giving wide berth to the vessels at anchor/underway taking into consideration that the minimum velocity of the current is 6 knots.
4. Vessels with containers on deck obstructing a clear view forward or the starboard side when viewed from port bridge wing and vice versa will not be allowed to navigate in the channel of the Karnaphuli River.

<sup>1</sup> Ebb tide is the period between high tide and the next low tide in which the sea is receding.

**Advice**

Gard's Members and clients are recommended to use all available means appropriate to the prevailing circumstances and conditions to determine the risk of collision and dragging of anchor. In order to promote proactive action, effective anchor watch measures and procedures should be implemented. In addition:

- Masters are advised not to anchor southward of Patenga Lighthouse with a bearing of less than 055° and to observe Admiralty Notices describing the areas where it is prohibited to anchor and the proposed anchorages.
- It is advisable to keep the engines ready at all times during spring tides, and maintain continuous and efficient anchor watches.
- The International Regulations for Preventing Collisions at Sea, 1972, as amended in 2002, should be followed as closely as possible while navigating within the limits of the Port of Chittagong.

The Port of Chittagong website (<http://cpa.gov.bd/portal/>) contains valuable information for visiting ships and recommendations that could be useful in order to prevent incidents.