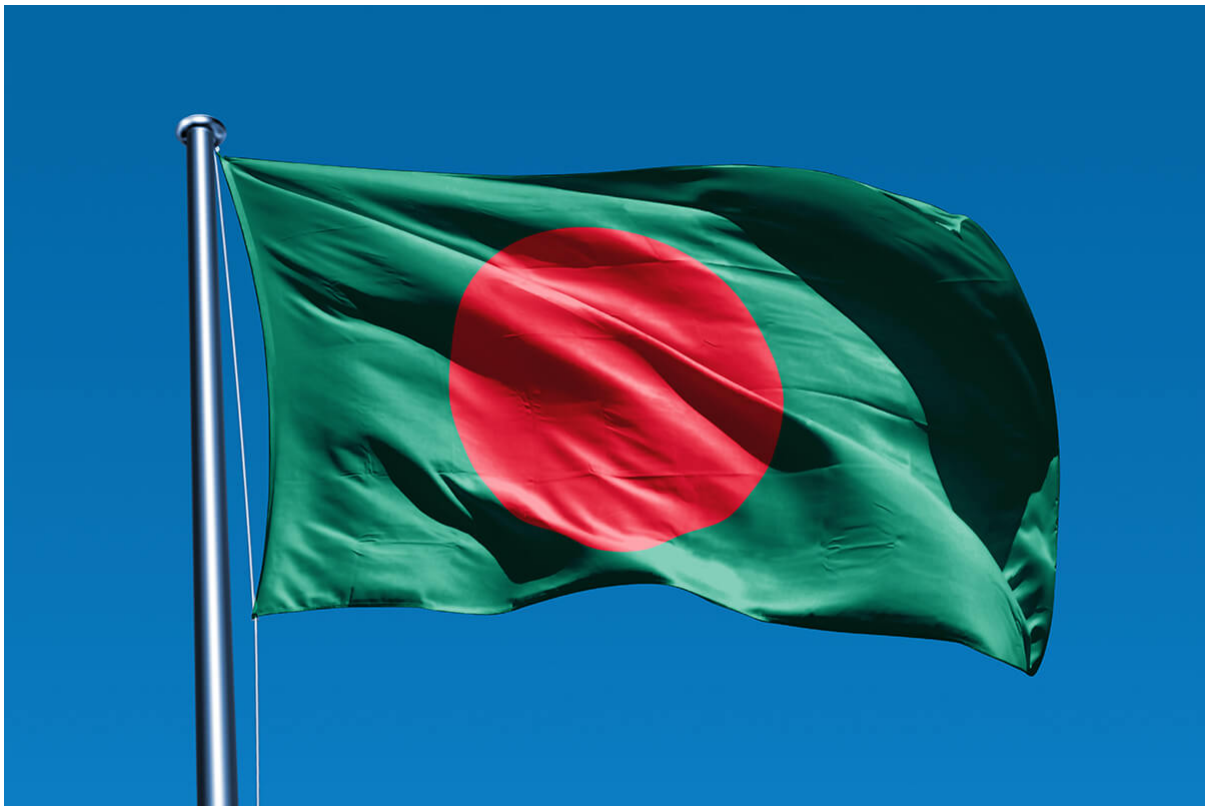

Difficult conditions at Chittagong anchorage

The number of navigation incidents off the port of Chittagong is again on the increase. Below are some lessons learned from recent incidents.

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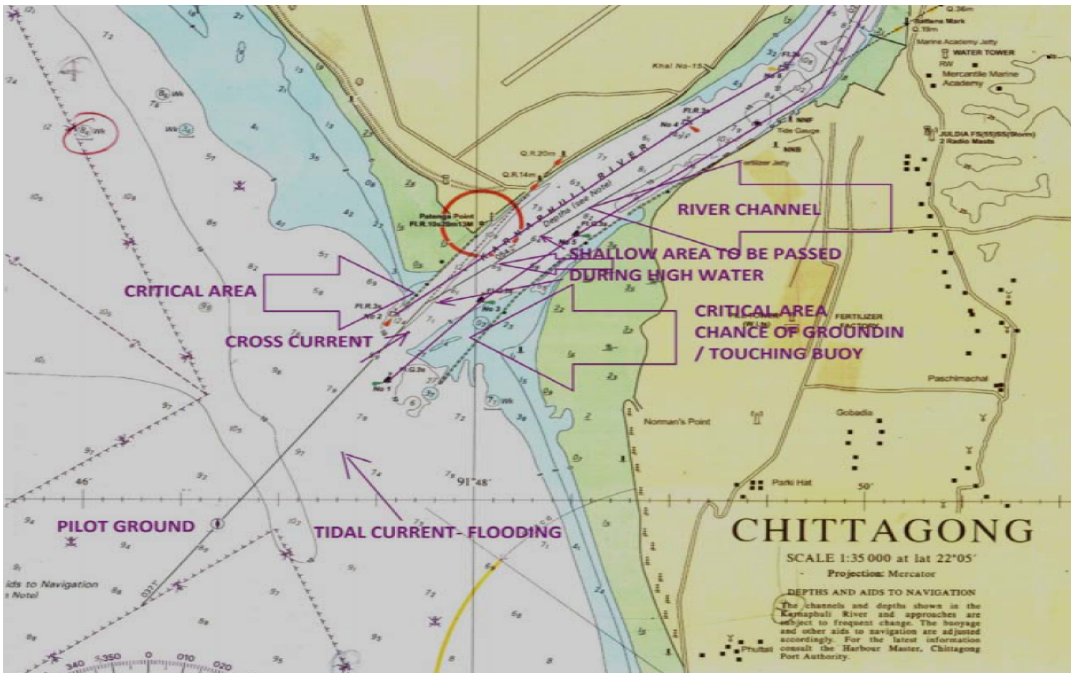
Gard has been notified of several recent collisions and groundings in the port approaches and anchorages of Chittagong, Bangladesh. The Chittagong Port Authority's (CPA) outer anchorage is very congested with vessels arriving at the anchorage for lighterage operations before entering the river. Entering the river can in itself be challenging due to strong currents especially during the monsoon season (June to November) when the weather conditions can deteriorate with little or no advance warning. Our Alert of October 2012, Gard%20Alert_Chittagong.pdf lists various measures that can be taken by vessels at or approaching Chittagong port and anchorages.



Section of the BA Chart 84 showing Chittagong's approach channel

Keep your distance

A recent report received from a ship's master who witnessed one of the incidents describes congested waters in the outer anchorage area. This particular incident happened at "A" anchorage, which is the northernmost anchorage designated for vessels with a draft of over 10 metres. The anchorage area is surrounded by shallower waters restricting the area available to such vessels. This is also coupled with high traffic density and strong local currents.

This incident involved a vessel with a draft of 11.5 metres anchored some 0.4 NM (740 metres) away from another anchored vessel at 'A' anchorage, with 9 shackles (260.3 metres) in the water. 0.4 NM is considered adequate sea room in some circumstances, however, as this area is known for its soft holding ground and strong currents, more distance between vessels may be needed when anchoring. The vessel started to drag anchor onto another vessel nearby during the ebb tide and shortly thereafter made contact with the other vessel and her rudder became entangled with the other vessel's anchor chain. This was followed by a main engine failure. Both vessels then started to drag their anchors towards other vessels in the area. As the two vessels had little or no control over their own movements, they could potentially collide with another 4-5 vessels in the vicinity as they drifted. Chittagong port control warned all vessels in the vicinity to start their main engines and give way to the vessels dragging their anchors.

The second vessel, which had her anchor cable entangled, had to cut loose her anchor chain to be able to move away from the vessel originally dragging her anchor. The second vessel sustained a significant hull breach flooding her no 5 cargo hold.

Recommendations

• Clearance from other vessels when anchoring

When anchoring close to other vessels in the vicinity, consider the time it will take before making contact with another vessel should your vessel drag anchor. This calculation is as critical as the swinging circle as it will determine how frequently the OOW should monitor the vessels position. Estimating the time required before making contact or running aground for different ground speed during dragging of anchor is an important part of the anchor watch for this particular anchorage.

• Main engine readiness

When anchoring in congested anchorages, the state of readiness of the main engines is important. We have seen from a number of incidents that the main engine often comes into operation too late to avoid a collision or grounding. The usual dragging line at Chittagong anchorage is reportedly 160oto 340o and drift can be 8 knots or higher during spring tides.

The tidal effect can be more pronounced when freshets are expected. Freshets are caused by the normal velocity of flow of an ebb tide augmented by the flow of an additional volume of water draining into the river from the catchment areas.

In such situations the vessel cannot rely on the anchor's holding capacity only. Vessels with 49,184 tons displacement with 9 shackles with a high holding power anchor, in depths of 12.4 metres are known to have had to place their engines on slow ahead (8.0 knots) to be able to hold their position during a spring ebb tide.

• Lighterage

A number of vessels calling Chittagong need to lighter before being able to enter the port due to draft restrictions.

Lighter vessels which come alongside the mother vessels are tied to the mother vessel using the lighter vessel's mooring lines. Sufficient fendering must be in place between the two vessels to avoid any hull damage to either of the vessels during lighterage operations. Lighter vessel are known to have fendering arrangements consisting of old mooring ropes wrapped around wooden spars or second hand tyres. If the master is of the view that the fendering is inadequate, he should refuse the lighterage vessel permission to come along side. Alternatively, the master should also consider using the vessel's own fenders.

It is also important for the crew to understand the process of casting off the lightering vessel in an emergency. This must be discussed with the master of the lightering vessel in advance and all crew involved in the operation must be informed of the process beforehand. Prudent seamanship requires knowledge and insight of local conditions.

The above recommendations can be applied at any port where similar circumstances are encountered.

Gard is grateful to Coast to Coast P&I Services Ltd. , Bangladesh for their assistance in the preparation of this insight.

Chart section featured courtesy of BA.

Questions or comments concerning this Gard Insight article can be e-mailed to the * * Gard Editorial Team . We are always happy to consider topics suggested by our readers. If you have any suggestion for future articles, please contact us.