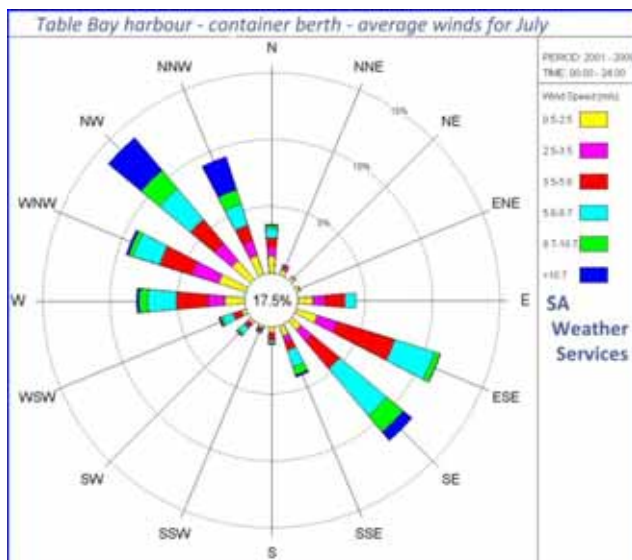


Table Bay as a lee shore. The grounding of the bulker *Seli 1* and other, similar incidents

The bulk carrier *Seli 1*, carrying 30 000 tons of coal ran aground off Cape Town's Sunset Beach late on



Monday night 7 September 2009. Of much more concern than the coal is the fuel oil of which there is over 600 tons on board. Because of its viscosity bunker oil is capable of doing considerable harm to the marine ecosystem – Capetonians need only think back to the sinking of the *Treasure* (June 2000) The old square-rigged sailing ships were unable to beat into the wind – even later versions had little chance of sailing very close to the wind. But a modern motor vessel that has lost all engine power – and finds itself on poor holding ground for the anchors to ‘bite’ into – is no better off. With a strong wind blowing onshore, it will find itself drifting steadily towards the beach (hopefully not rocks). Vessels such as passenger ships and car carriers are particularly vulnerable because of their high superstructure.



The wind rose above is the July average from an automatic weather station located in the container berth (eastern side of the harbour – very badly located for SE'ly gales). Note the strong onshore wind components, mostly associated with incoming frontal troughs. Although the frequency of SE'lies increases significantly towards September, the NW'lies hold their own, particularly in a year where frontal activity remains unusually high.



This vessel tracking services chart comes courtesy of MarineTraffic. The position of vessels carrying VTS are updated real-time. Thus this is the actual position of the Smit salvage tug *Smit Amandla* standing by the casualty earlier this morning (11-9-09). Unfortunately wave conditions have deteriorated overnight. Soon after the grounding the deep sea significant wave height was in excess of 6m (~ SW'ly) – probably 3-4m in the Bay, due to wave refraction.

The bones of dozens (hundreds ?) of vessels are scattered along the west coast of the Cape Peninsula. A popular dive site is the wreck of the *RMS Athens*. This sail/ steam ship combination dates back all of 144 years (!) – to the “Great Gale” of 1865. Many other vessels were driven ashore in the same (NW'ly) storm.

Another category of grounding is the case where a vessel is under tow, the cable snaps in adverse weather – and the tug is unable to reconnect. The *BOSS 400*, southwest of Oudeschip is a typical example. This was a particularly intense frontal system (by comparison the event earlier this week was not that extreme : sustained wind speeds in the Bay did not remain above gale force for more than a few hours)

Perhaps there is a (partial) solution to the problem of a ship drifting helpless onto a lee shore :



These sail-assisted merchant ships have been a reality for a few years now, with fuel savings of up to 35% being claimed. But of more significance in this particular case is the fact that the kite is apparently able to tow a vessel upwind. Well, within 50° of the eye of the wind. Probably not much help when you're already well into a semi-enclosed bay. But certainly a possible life-saver if the vessel is still well offshore – or where the coastline is fairly straight and the wind angled to the coastline.

Ian Hunter – SAWS – 11-09-09