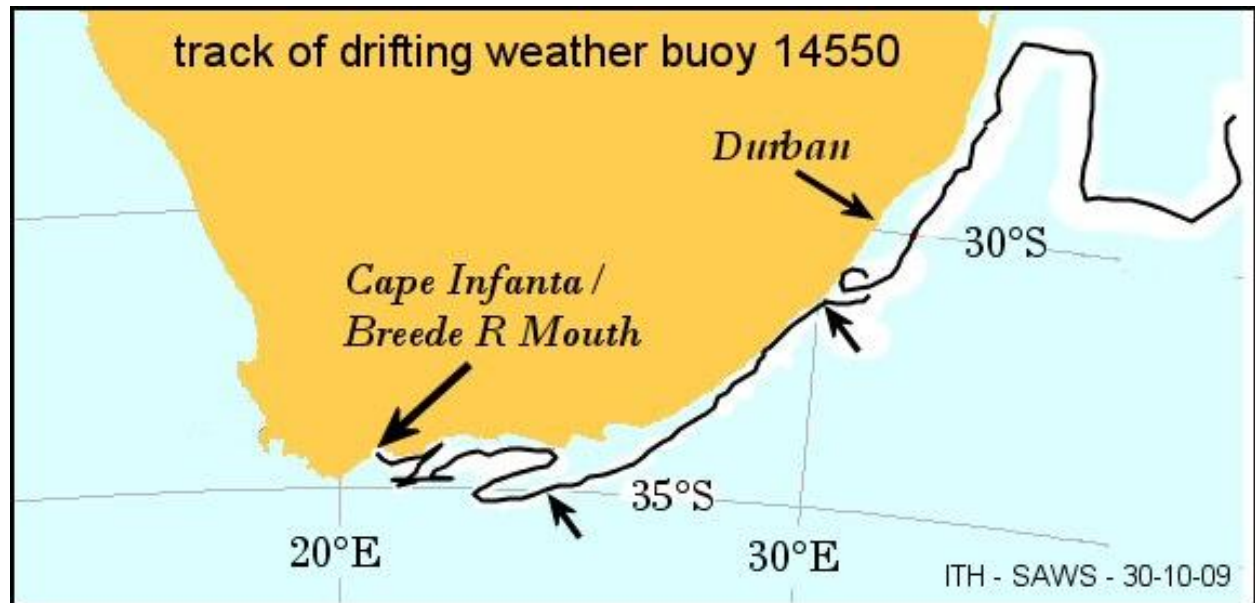


Drifting Weather Buoy 14550 – Mozambique Channel into Agulhas Current

– ‘docked’ Cape Infanta 27-10-09 14h20 UTC



For several days towards the end of October the above buoy threatened to go ashore somewhere along the Cape South Coast. Fortunately it eventually chose the safe haven of the Breede River Mouth : on the afternoon of 27 October its ‘sea’ temperature reading jumped from a steady 17-18°C to 28.4°C - drifting buoy 14550 had landed !

This ‘drifter’ was deployed by the French fisheries protection vessel *Osiris* on 25 June 2009 at a position roughly 80 nm southeast of Île Europa in the Southern Mozambique Channel. The track above starts mid-July.

There is much to take note of following the track of this drifter :

- The drogue came off after only 5 days – i.e. the buoy would have responded somewhat more to surface conditions than desired
- Natal Pulse. This is a much-researched cyclonic meander in the Agulhas Current which propagates down the East Coast at approximately 20 km/dy. It is quite possible that the circular track followed by the buoy off the KwaZulu-Natal South Coast was related to this phenomenon – i.e. buoy

drawn inshore, then drifting northwards for a time in the inshore counter current

- Between 11 and 15 September (buoy positions marked by arrows on the map) this buoy *averaged* 3.6 kts. At times it could well have been in the range 4-5 kts (to put this in context the Olympic record for freestyle over 50m translates to just over 4.5 kts)
- On September 17 the buoy ID'd a perfect case of the instability in the Agulhas Current as it approaches the Agulhas Bank. It swung from 23°E all the way back to offshore Cape St Francis in a large meander. Then it moved offshore again on September 29, only to rotate cyclonically back to the coast, eastwards beyond Cape St Blaize. And thereafter an inshore track into the Breede R Mouth, just east of Cape Infanta
- Apart from the jump in temperature when the buoy was beached and exposed to the afternoon sun (and the subsequent low overnight air temperatures) – the variation in SST was relatively low during the whole track. It stayed between 20 and 23°C from the time of its deployment until 17 September when it exited the Agulhas Current meander and moved into a filament of cold water extending well offshore.

The day after this drifter went ashore (i.e. 28 October), the owners of nearby Mudlark Lodge very kindly arranged a search for it. The Argos positions were pretty much spot on – there it was on the beach, adjacent to Cape Infanta village. Still functioning 100%.

PTO ->

Staff off the South African Weather Service regional branch in Cape Town drove to the Lodge the following day to collect the buoy and personally express the gratitude of SAWS.

Ian Hunter, Lithakazi Mkatshwa & Sydney Marais

See photos below :





PTO : THE buoy (and beautiful Cape Infanta !) ->

*Ashley & Rudolf from Mudlark Lodge
- with THE buoy*



note the gooseneck barnacles
on the drogue cable