

RIP CURRENTS AT NTAUFUFU BEACH

Ntafufu Beach lies on the southeast coast of South Africa, and is exposed to the south Indian Ocean to the east, and the Southern Ocean to the south. The coastline is essentially straight without features such as islands or large bays, and as such there are few areas that are protected from waves and weather emanating from these oceans.

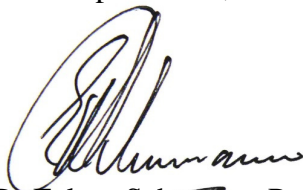
The severity of storms and winds increases to the south of South Africa, into the westerly wind belt. These strong winds generate waves which then reach the South African coast as swell, moving northeastwards along the Transkei coast. Wave refraction acts in shallower water at the coastline to bring these waves onto the shore.

The beach is well supplied with sand, with known volumes of over 200,000 m³ pa moving north-eastwards along this section of the coast. While slightly recessed, Ntafufu Beach conforms to the general line of the coast, and such sand transport will play a major part in the formation of sandbanks and transverse and alongshore bars, and therefore the existence and endurance of rip currents.

Inspection of Google-Earth satellite imagery confirms the expectation that rip currents are a relatively common feature of the dynamics of Ntafufu Beach. However, with the variations in waves and sand movement it is not possible to predict when and where such rip currents will become established, or indeed how long they will persist.

An *in loco* inspection of Ntafufu Beach on 5 August, 2019, also served to confirm these opinions. While there were no definite rip currents operating on the day, there were no reasons to expect that rip currents could not be a regular feature of the dynamics of the beach.

Finally, it is important to note that there is no definite association between the existence of rip currents and the state of the tide. As such, these intense, sporadic features of beach areas are called rip currents, and not rip tides.



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