

TRITON ISLAND

15°47'14.74"N, 111°12'27.8"E

Geographic area

Triton Island is located on the southwestern most shallow reef platform of the Paracels, less than 135NM northeast of Vietnam's mainland and around 170NM southeast of the island of Hainan. The closest shallow geographic features are Discovery Reef and Passu Keah, more than 30NM and 34NM northeast, respectively. The coral reef platform extends 4.3km along its northeast-southwest axis and 2.5km along its northwest-southeast axis.

Land area above water

Triton Island is a mostly above-water sandy platform (1.17km²). It extends nearly 2km along its northeast-southwest axis and close to 1km along its northwest-southeast axis. Seawater intrusions involving sediment transport are visible on large portions of it, especially the central and northeastern parts; the areas concerned total 29% of the sand platform. In



the 8 February 2013 satellite image, the areas where seawater intrusion can be observed can be over 1m deep. Scattered vegetation is visible, especially along the southern edge, as well as on the northern side of the sandy platform, which suggests that unlike the centre, these areas may not get inundated. A tree plantation is visible on the northeastern side of the built-up area. A small wetland (4700m²) is also visible along the southern part of the southwest-facing side.

Human infrastructure

A built-up area surrounded by seawalls can be observed on the western end of the sand platform; it is circular, with a diameter of around 120m, and includes around 10 buildings as well as dense vegetation. Small buildings and man-made structures are also visible along the outside of the western side of the plantation and along the outside of the seawall. An artificial harbour has been constructed 44m west of the built-up area. It is 120m wide and extends 150m seaward. A 40m-wide man-made channel dug through the reef flat connects it to the open sea. The harbour and the channel are 3-4m deep. Four 70 to 90m-long by 10m-wide concrete blocks have been placed on the reef flat along the southwestern edge of the sand platform, less than 100m seaward.

Intertidal and submerged area

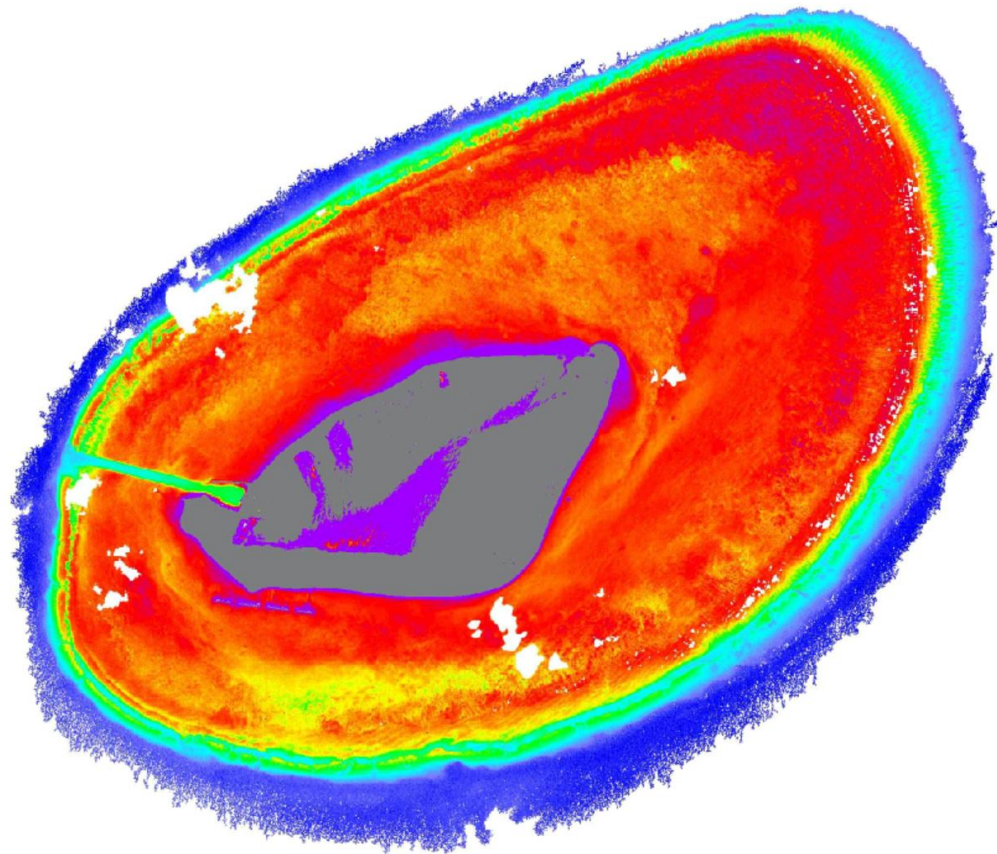
The aerial coverage of the reef platform is 7.34km², comprising a reef flat of 6.02km² and a reef slope of 1.32km². The reef flat is mostly 1.4-2m deep. Areas that are 1.49m deep or less are expected to uncover at Lowest Astronomical Tide. The reef slope extends 200-250m seaward off the northeastern and southeastern sides of the sand platform and 100m off the rest, suggesting a steep slope. Spurs and grooves are clearly visible on the northeastern side. Dredging marks are clearly visible over 1.05km² of the reef flat in the 8 February 2013 satellite image. Deeper marks over a larger area can also be observed in the 9 October 2014 satellite image viewable on Google Earth.

TRITON ISLAND

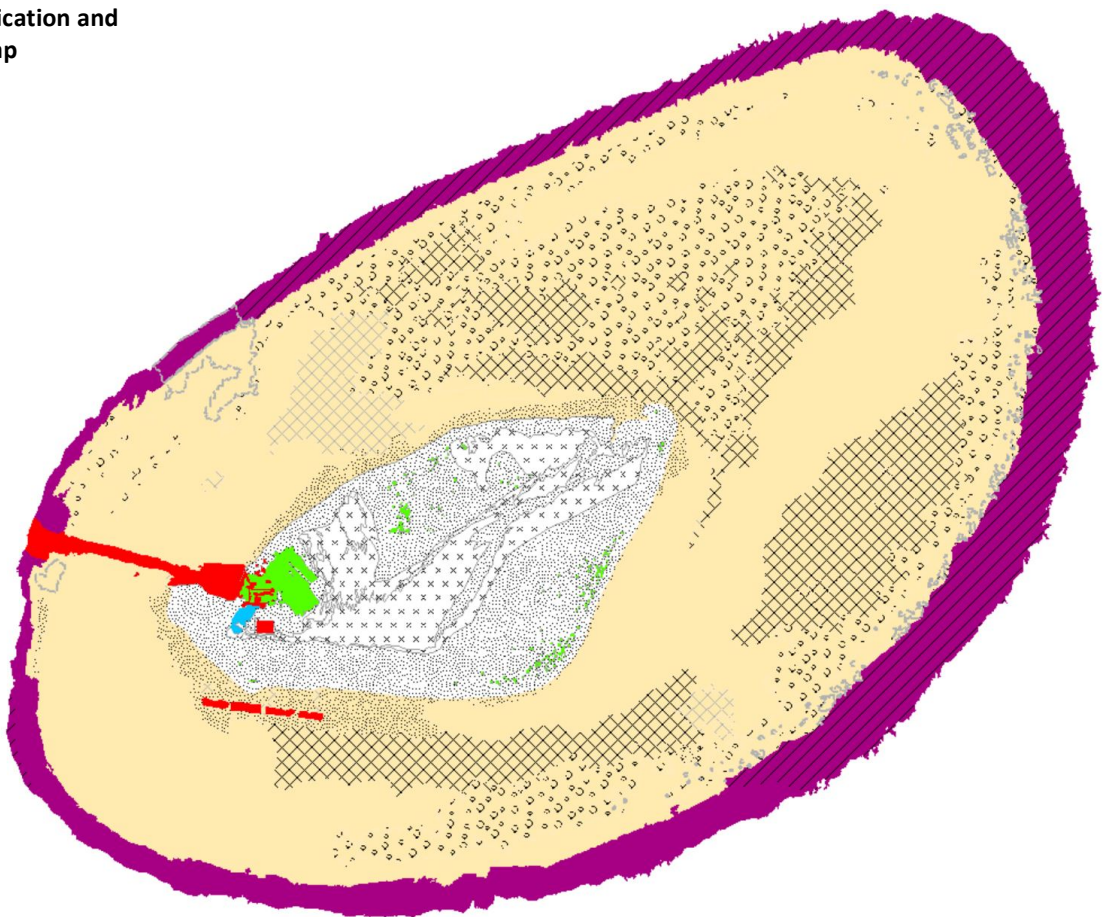
15°47'14.74"N, 111°12'27.8"E

Derived from WorldView-2 satellite data captured on 8 February 2013 [Sea Level: +11cm]

Bathymetry Map



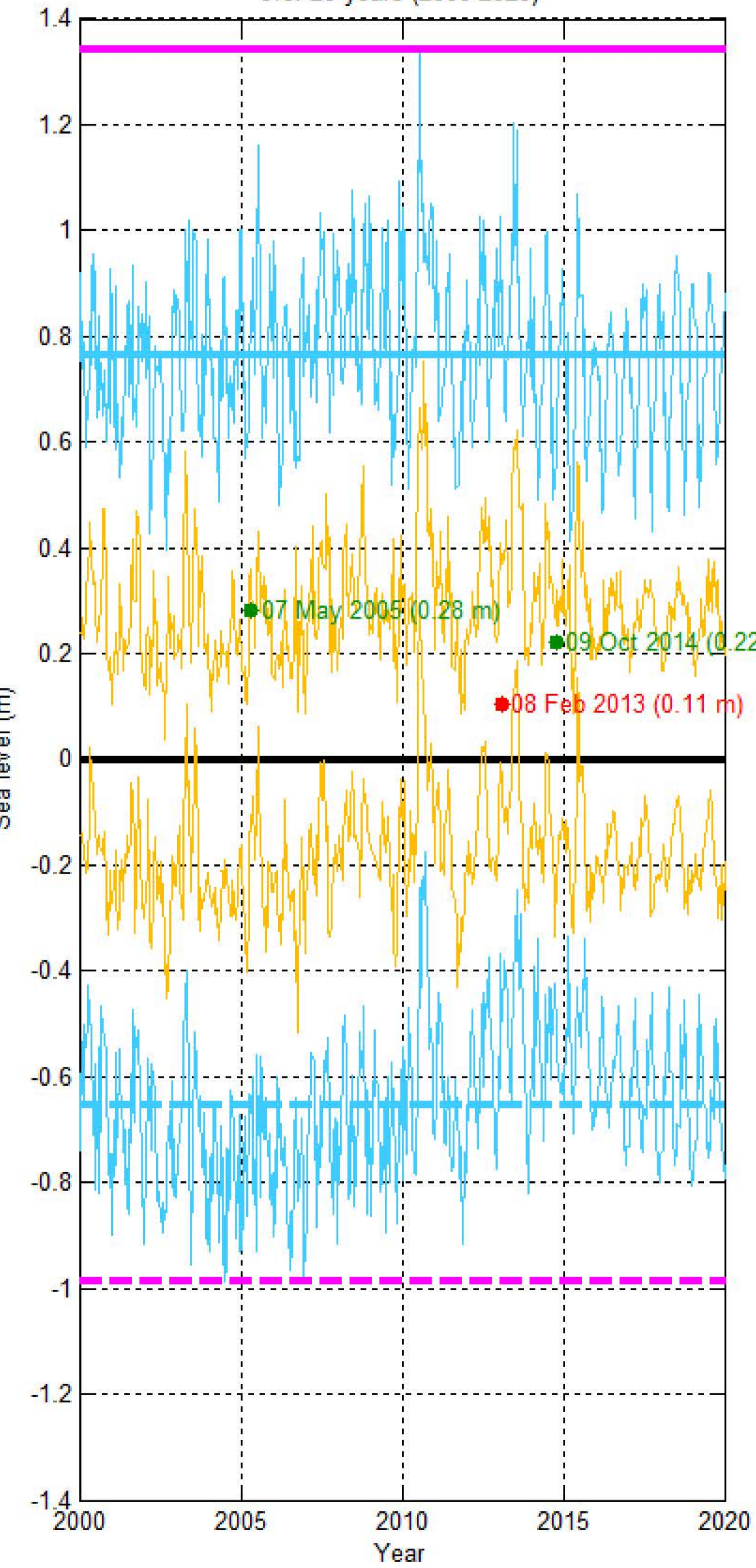
Habitat Classification and Land Cover Map



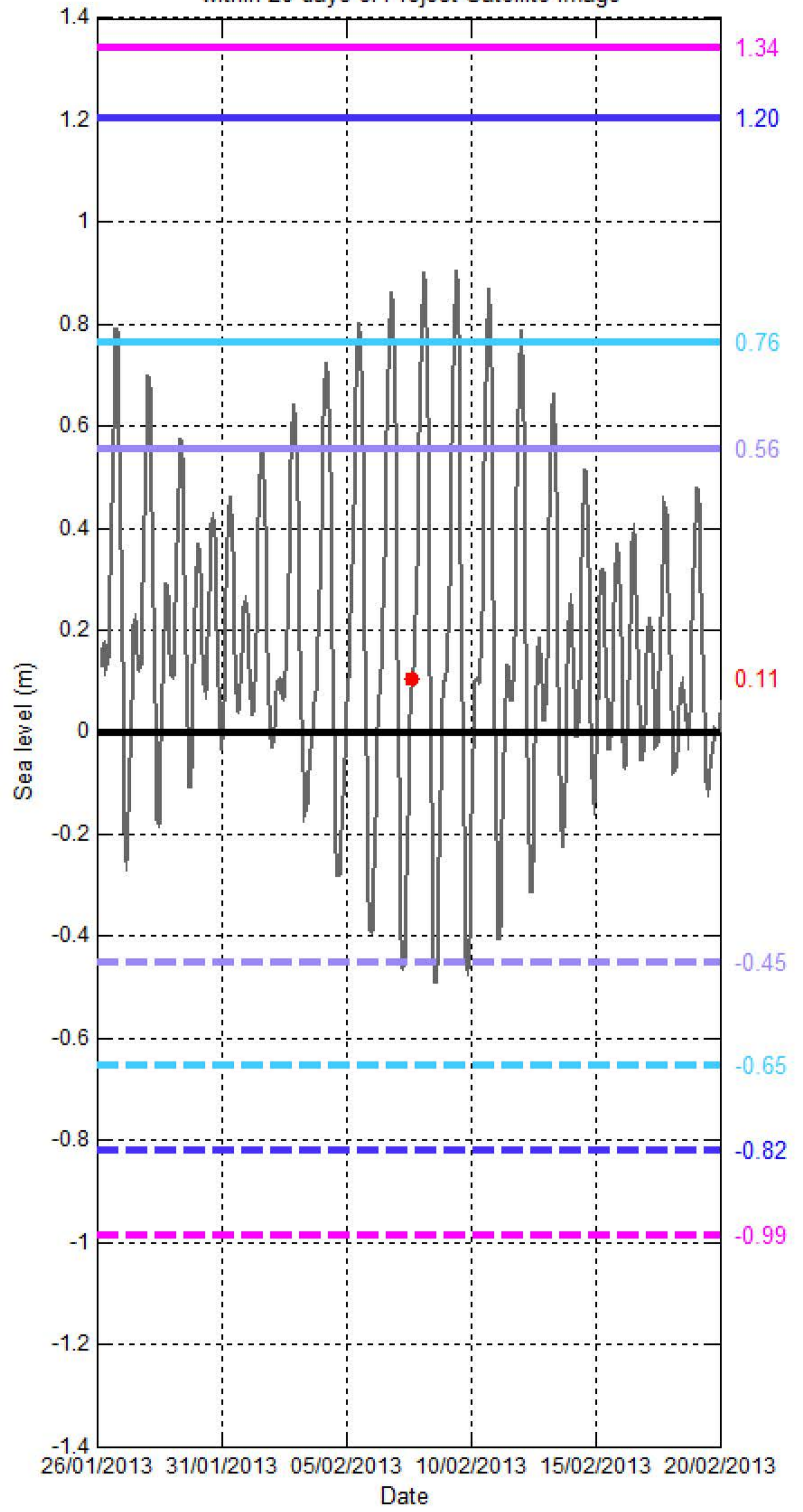
Sea level (SL) at TRITON ISLAND

[15°47'14.74"N, 111°12'27.80"E]

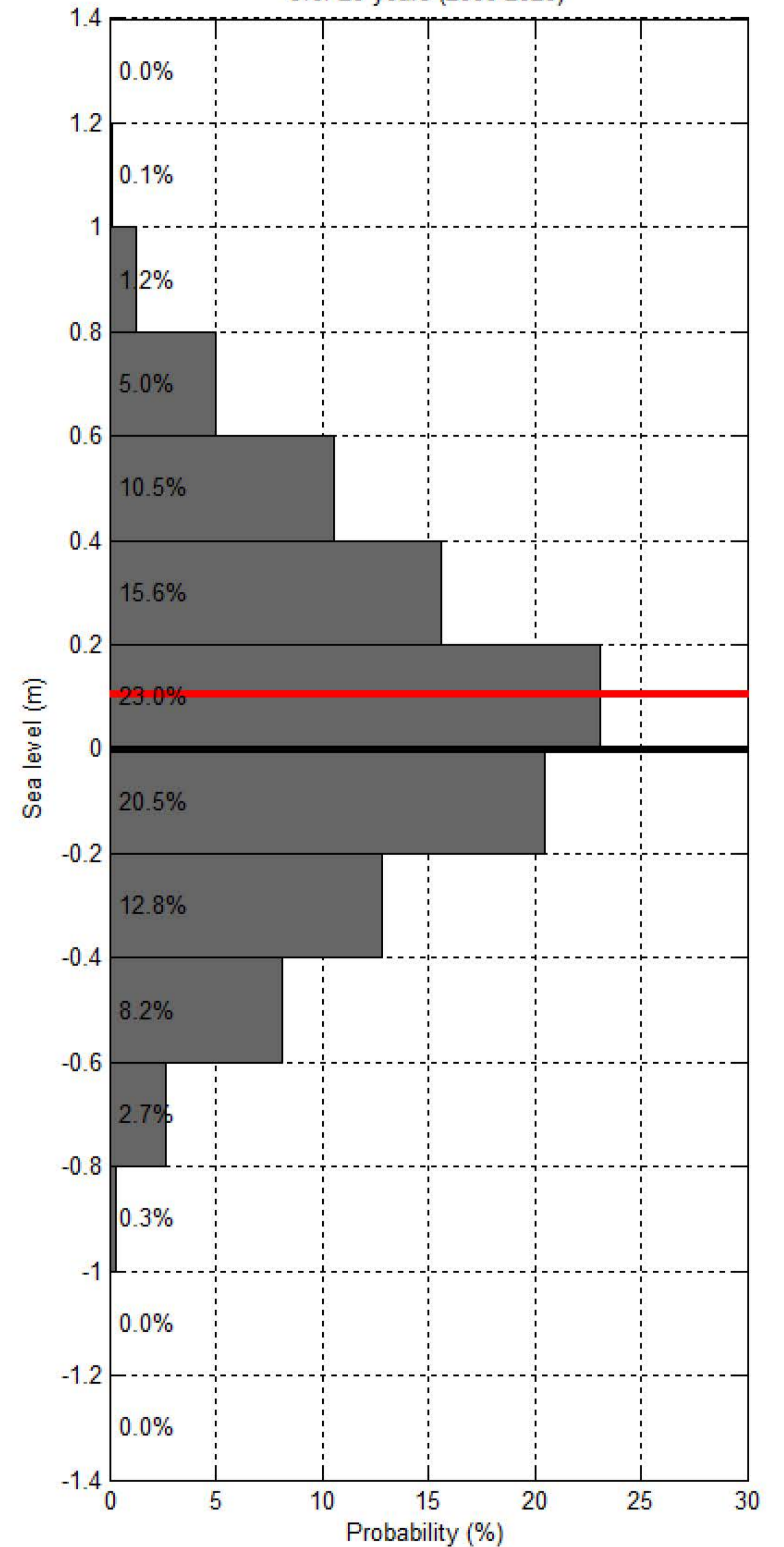
Sea level at spring/neap tide at TRITON ISLAND over 20 years (2000-2020)



Sea level at TRITON ISLAND within 20 days of Project Satellite Image



Probability of sea level at TRITON ISLAND over 20 years (2000-2020)



- Hourly sea level
- SL at spring tide
- SL at Mean High Water Spring
- SL at highest tide of the year
- SL at Mean Higher High Water
- SL at Highest Astronomical Tide
- Project Satellite Image
- Mean Sea Level
- SL at neap tide
- SL at Mean Low Water Spring
- SL at lowest tide of the year
- SL at Mean Lower Low Water
- SL at Lowest Astronomical Tide
- Google Earth and Landsat satellite images