

NAMYIT ISLAND (TIZARD BANK)

10°10'49.28"N, 114°21'38.68"E

Geographic area

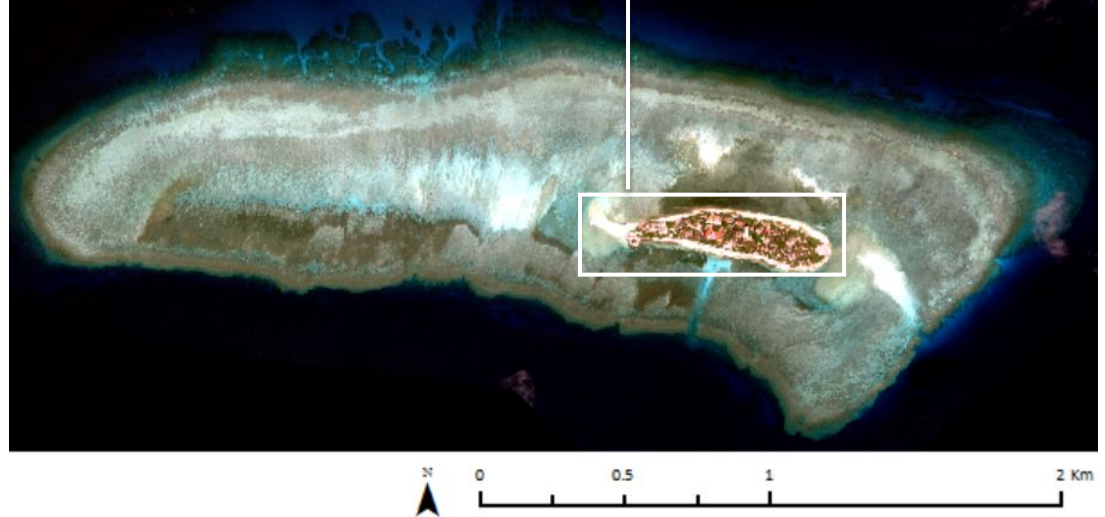
Namyit Island is located on the eastern side of the only reef flat of the south facing side of Tizard Bank, between Gaven Reef South (5.4NM west) and Eldad Reef (over 20NM northeast). This reef platform is 3.7km long along its west-east axis and 1km wide along its north-south axis.



WorldView-3 True Colour
23 Oct. 2014
Sea Level: +25cm
©DigitalGlobe 2014

Land area above water

Namyit Island is the only above-water land area on this coral reef platform. In the 23 October 2014 satellite image; it is shaped like an elongated teardrop with a height of 800m (west-east axis) and a width of 150m or less.



Most of this

above-water area is surrounded by a seawall, except for a 10-30m wide band of sand and vegetation along the northern side and a 130m by 30m sandy spit at the western end (the bottom of the tear drop) that changes shape and size under the combined effect of astronomic tides, storm surges and wind-waves. Within the seawall, terrestrial vegetation can be observed between the buildings (50% of the above-water area is vegetated), including a noticeable presence of palm trees.

Human infrastructure

Around 30 buildings are visible on Namyit Island as well as additional smaller structures; some have solar panels. A system of roads can also be seen, sometimes obscured by vegetation, as well as a helipad on the eastern end. Buttresses can be observed seaward of the seawall to reinforce them. A lighthouse has also been constructed on the southwestern end. Two small jetties on the northern side of the above-water area extend 10-15m seaward. A wider and concreted jetty stretches 30m seaward. A 300m-long by 60m-wide channel has been constructed south of Namyit Island, from the jetty to the reef slope. It is 3-9m deep, whereas the surrounding reef flat is 2m deep. Three sets of non-accessibility device systems have been installed on the reef flat: two along the southern seawall and one that is 280m long and is positioned along the edge of the northern reef flat.

Intertidal and submerged area

The aerial coverage of the reef platform is 3.75km²; the reef flat is 2.37km² and the reef slope 1.29km². The northern half of the reef flat is 1.2-1.5m deep when the sea level is 24cm above Mean Sea Level, whereas the southern half is mostly 1.5-2.5m deep. A few small areas in the western end and in scattered area in the northern half of Namyit Island are around 1m deep. All areas that are 1.38m deep or less are expected to uncover at Lowest Astronomical Tide.

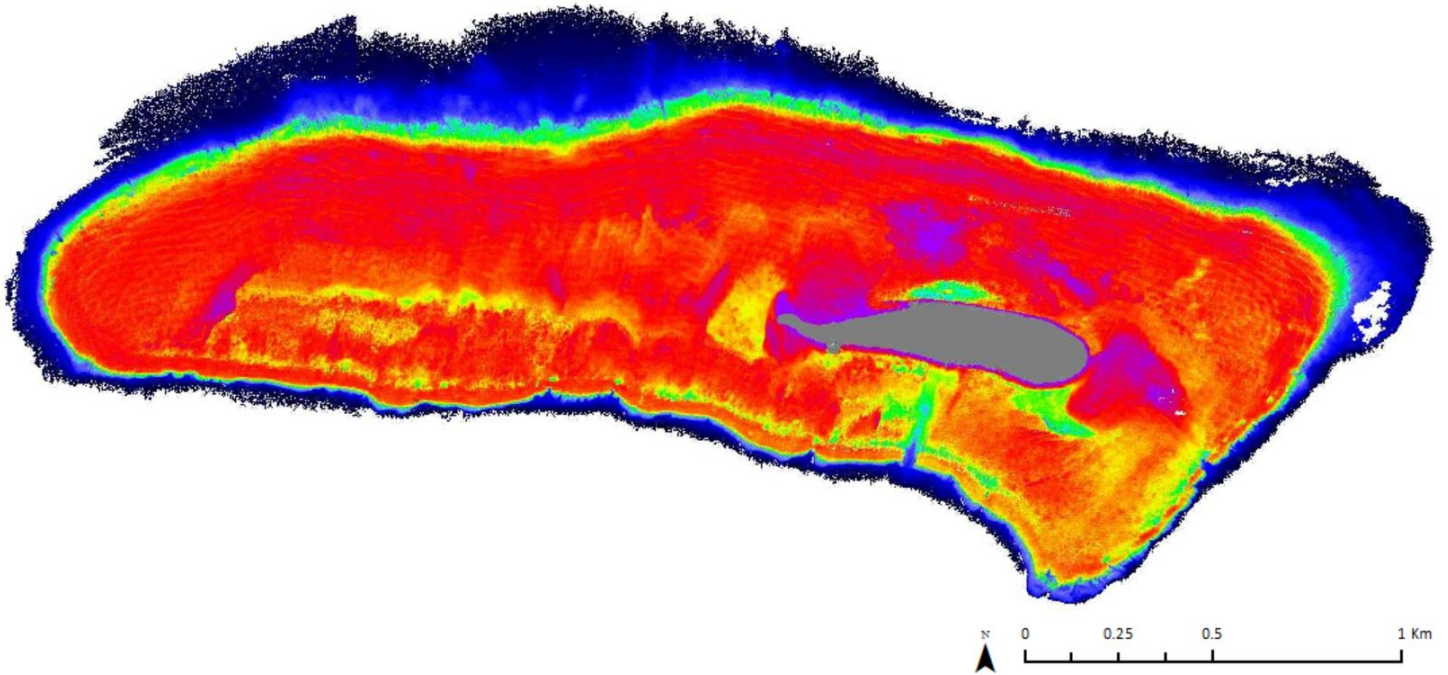
The reef slope extends 100-200m seaward off the northern, northeastern and western sides of the reef flat, compared to 50-100m for the rest. Spurs and grooves are only visible where the reef slope is the longest, mostly towards Tizard Bank's central lagoon where it does not seem as steep.

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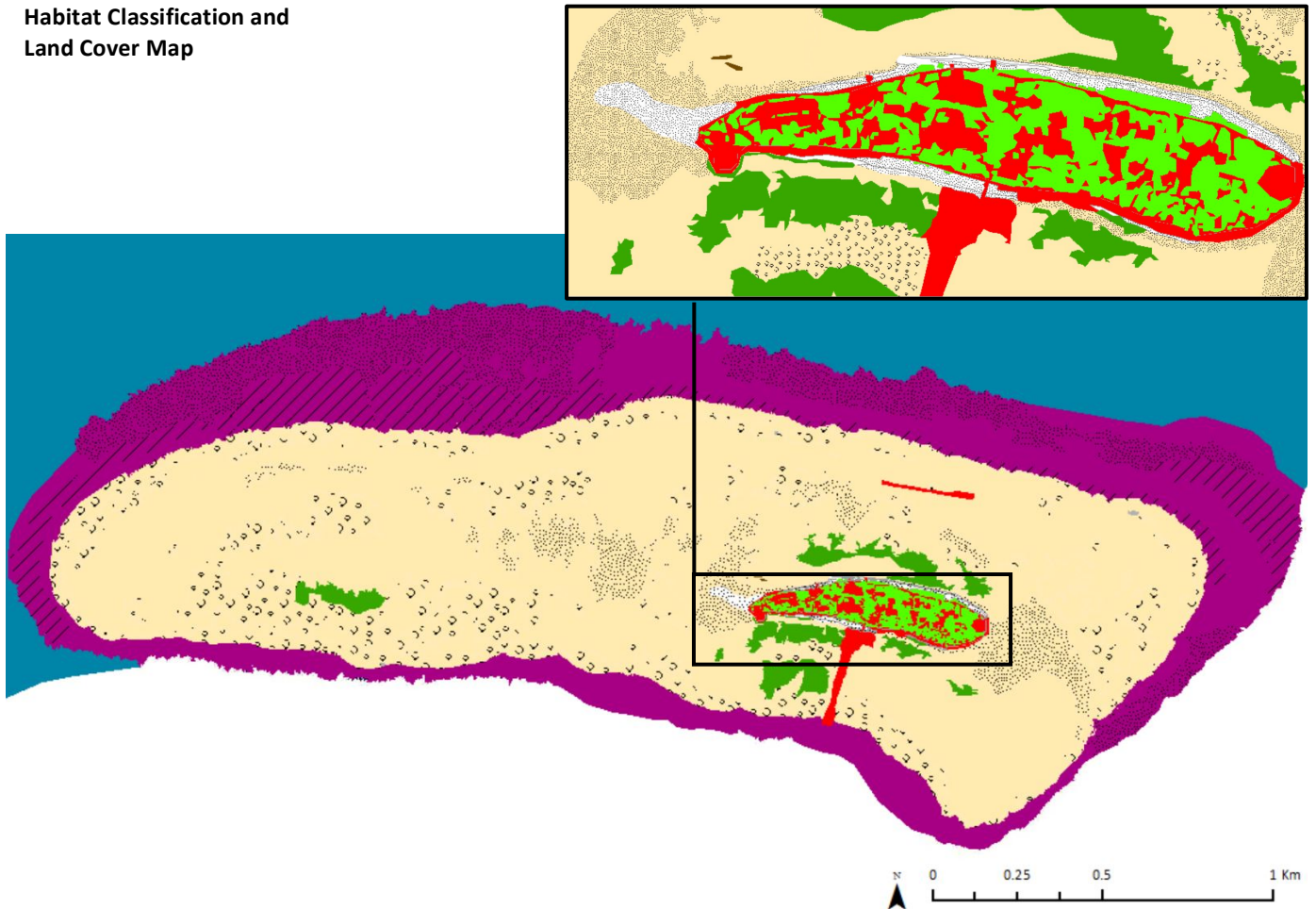
10°10'49.28"N, 114°21'38.68"E

Derived from WorldView-3 satellite data captured on 23 October 2014 [Sea Level: +25cm]

Bathymetry Map



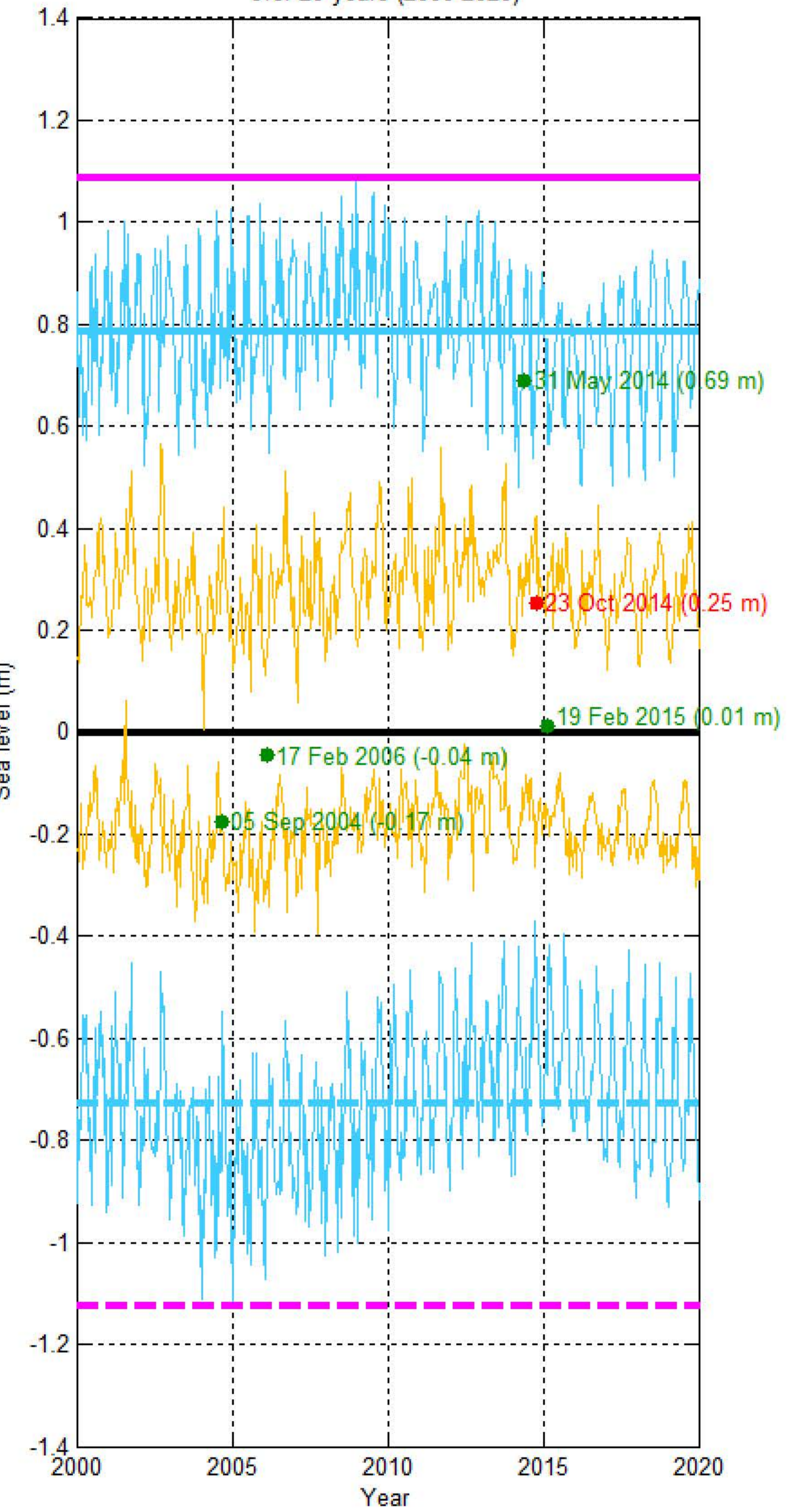
Habitat Classification and Land Cover Map



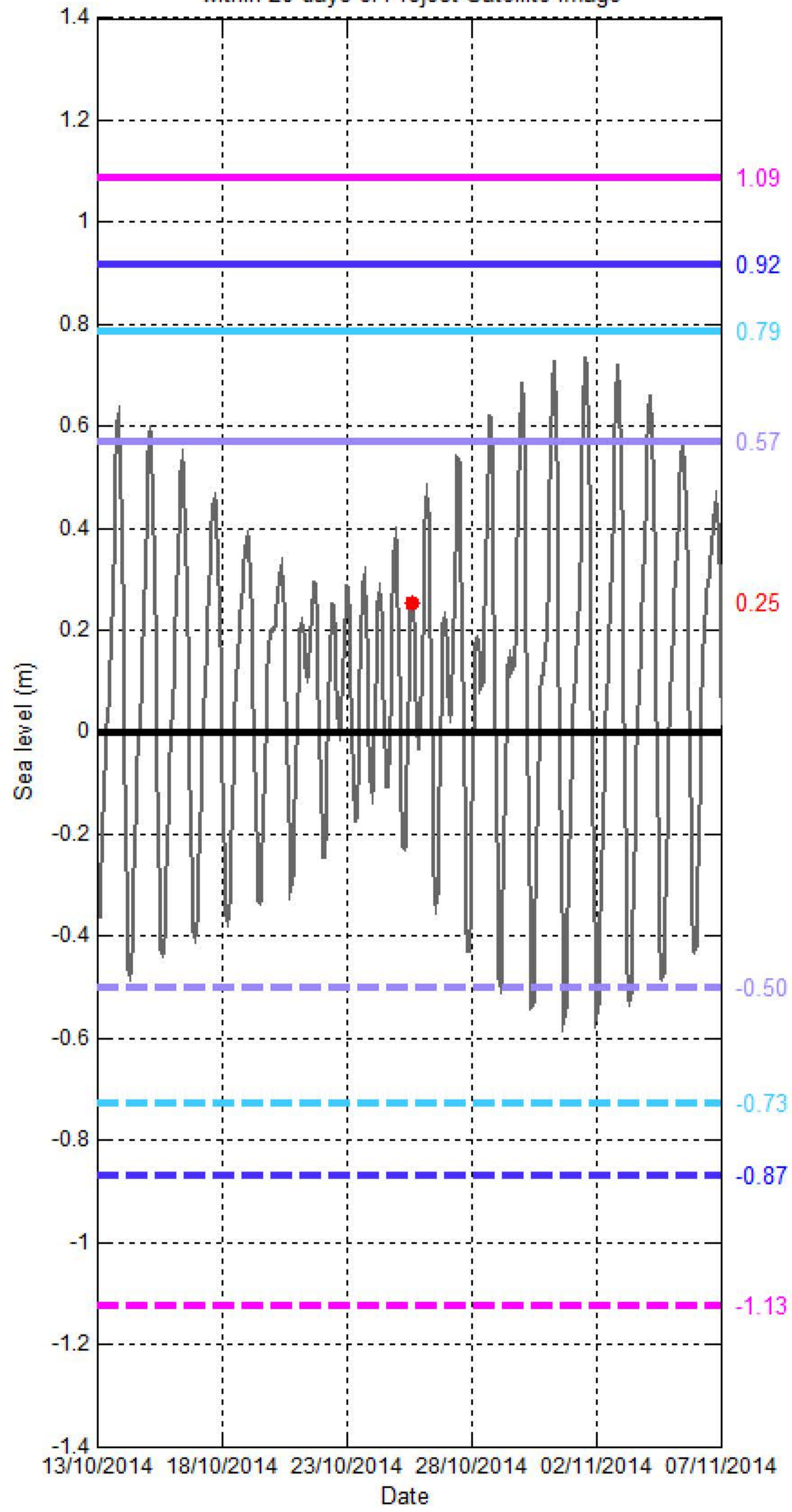
Sea level (SL) at NAMYIT ISLAND (TIZARD BANK)

[10°10'49.28"N, 114°21'38.68"E]

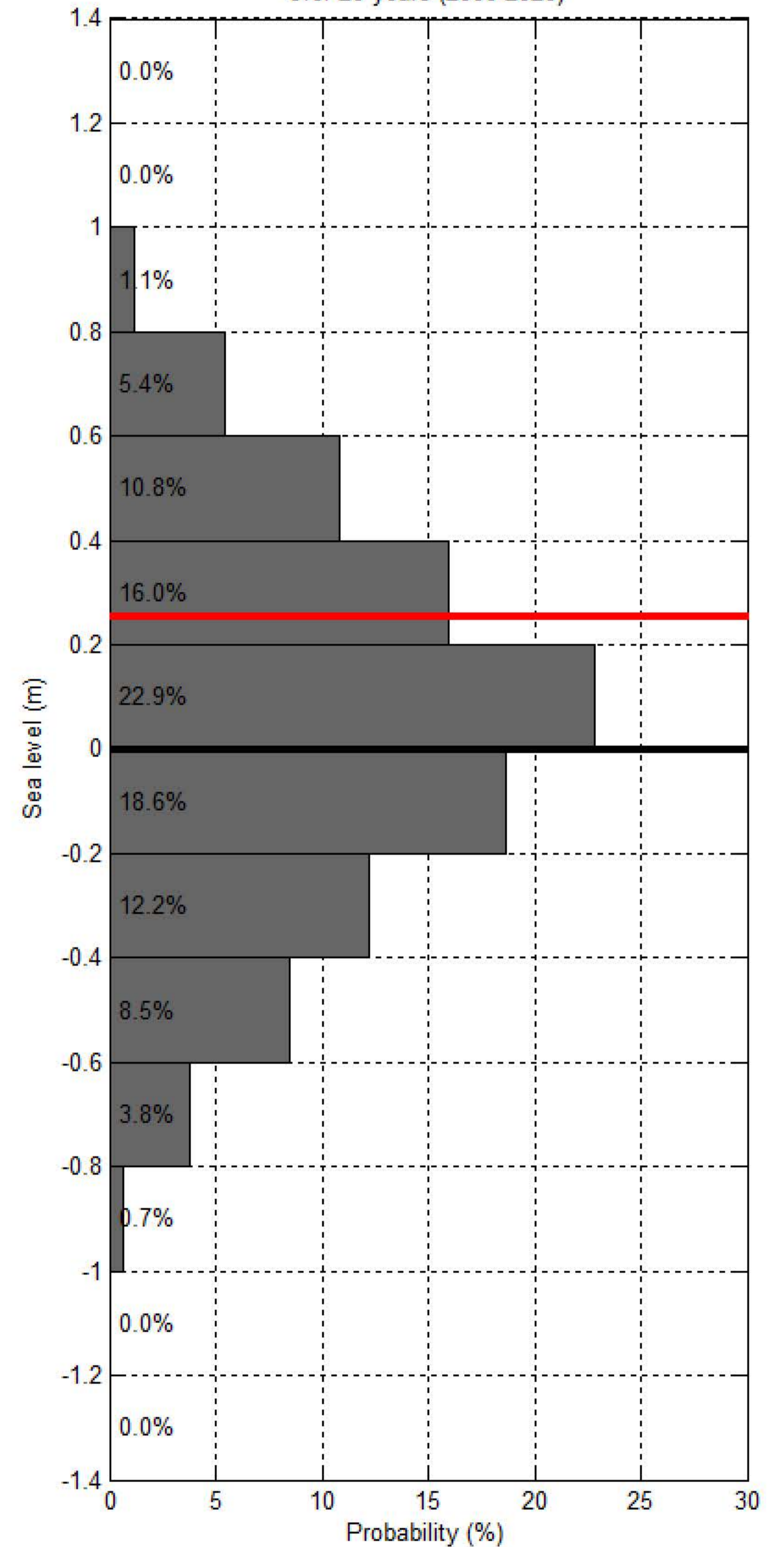
Sea level at spring/neap tide at TIZARD BANK - NAMYIT ISLAND over 20 years (2000-2020)



Sea level at TIZARD BANK - NAMYIT ISLAND within 20 days of Project Satellite Image



Probability of sea level at TIZARD BANK - NAMYIT 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