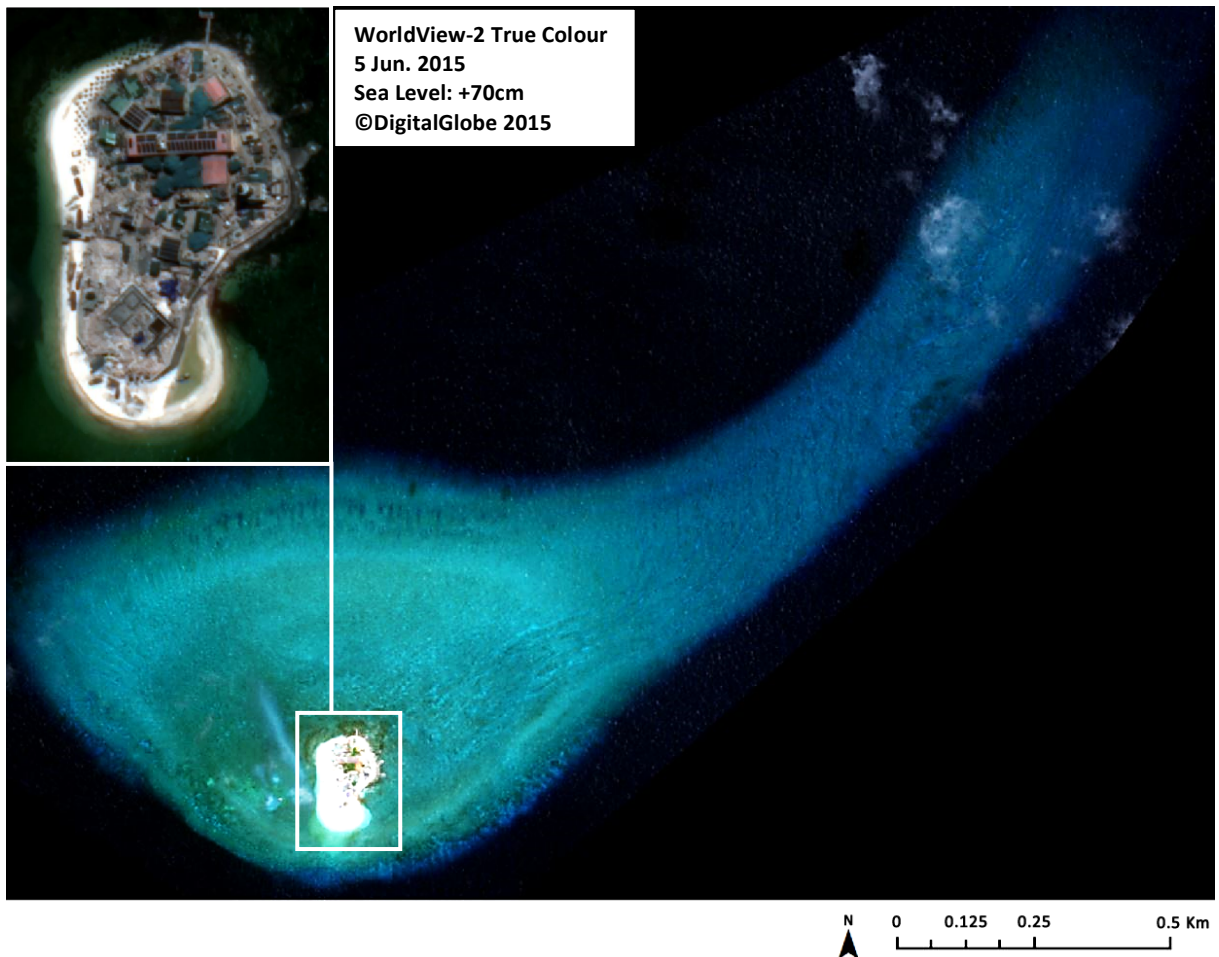


AMBOYNA CAY

7°53'36.32"N, 112°55'16.29"E

Geographic area

Amboyna Cay is an oceanic shallow coral reef platform that developed on top of a seamount in the southern part of the Spratlys. It is located more than 200NM west of the island of Borneo and Palawan. The closest shallow geographic feature is Barque Canada Reef just over 20NM northeast. The reef platform is shaped like a ladle, extends 2.3km along its northeast-southwest axis and reaches 800m wide along its northwest-southeast.



Land area above water

An above-water land area (14,000m² overall) is located in the southern part of the reef flat. It is 170m long (north-south axis) by 100m wide (west-east axis) at its longest and widest points, respectively. Most of its surface area is enclosed within a wide seawall (around 10,000m²) and is densely built up with some terrestrial vegetation; the remaining unbuilt area is covered with sand. The sandy areas extend 5-20m on the western, southern and southeastern sides of the seawall. The northern, northeastern and eastern sides are steeper and have no dry sand areas. Waves break directly on the seawall. This satellite image was captured at high tide (only 8cm below Mean High Water Spring), which suggests that this area remains above water at most (if not all) times of the tide cycle and that the beach area would increase at low tide.

Human infrastructure

Within the seawall, 8 man-made structures are visible as well as ongoing construction work. Three roofs have solar panels, the largest of which is 45m long by 10m wide. The satellite image from 17 November 2010 suggests that the built-up area enclosed in a seawall had been recently extended. The northern circular part, at the centre of which is located the largest building, appears to have been constructed first (90m by 70m). The southern elongated section would have been added later and does not appear to have been completed. A jetty extends 13m north from the seawall. A 130m-long non-accessibility device can be seen on the outer part of the north of the seawall.

Intertidal and submerged area

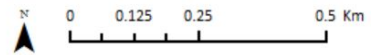
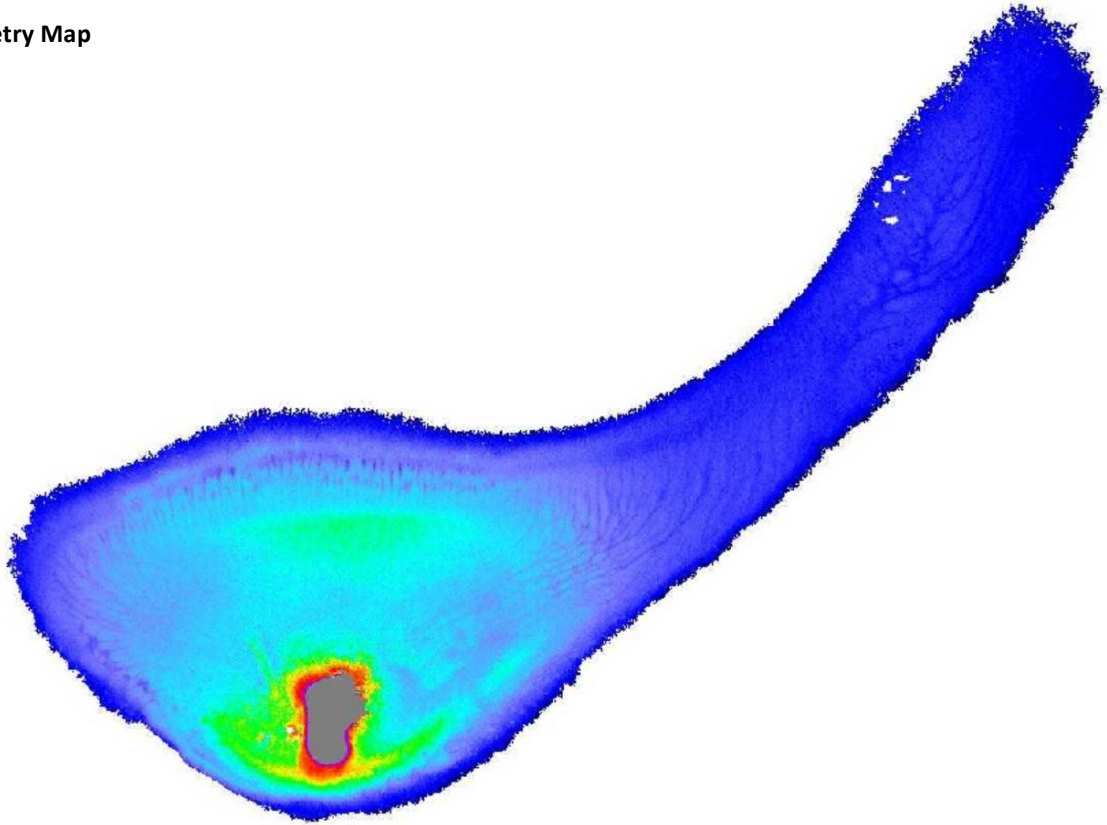
The aerial coverage of the coral reef area is 1.15km². The reef flat is 0.37km² and the reef slope 0.76km². Apart from a 20-40m band surrounding the above-water feature that is less than 3m deep, the rest of the reef flat is 3-5m deep at high tide, which suggests that it is 1-3m deep at Lowest Astronomical Tide and remains submerged. The reef slope is characterised by the presence of spurs and grooves that extend over 500m in the northeastern part of the reef slope and are more than 1m deep. No dredging marks are visible in the 5 June 2015 satellite image, but sand plumes are visible on the western side of Amboyna Cay within the vicinity of a 7m vessel. It is unclear whether a correlation exists.

AMBOYNA CAY

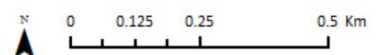
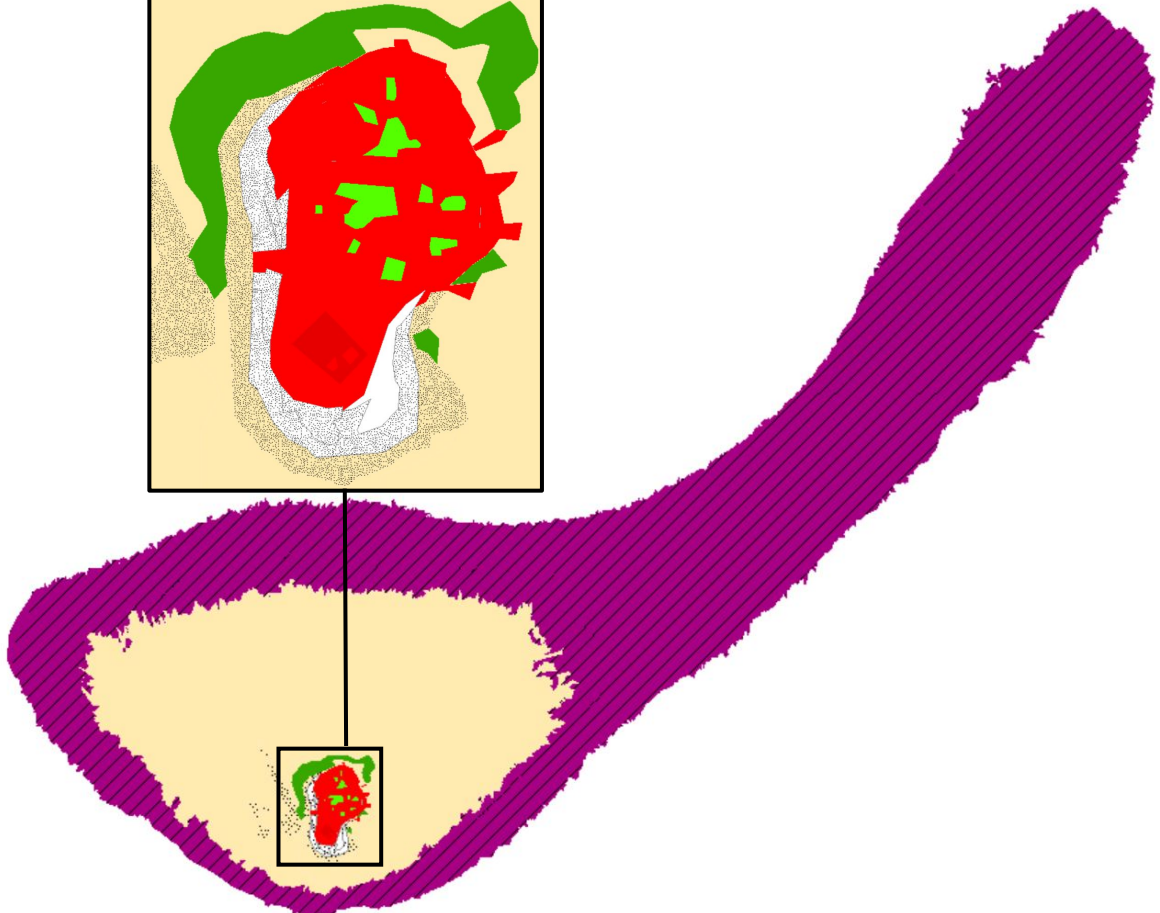
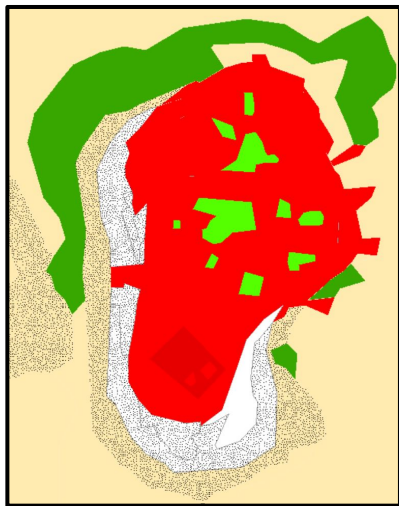
7°53'36.32"N, 112°55'16.29"E

Derived from WorldView-3 satellite data captured on 5 June 2015 [Sea Level: +70cm]

Bathymetry Map



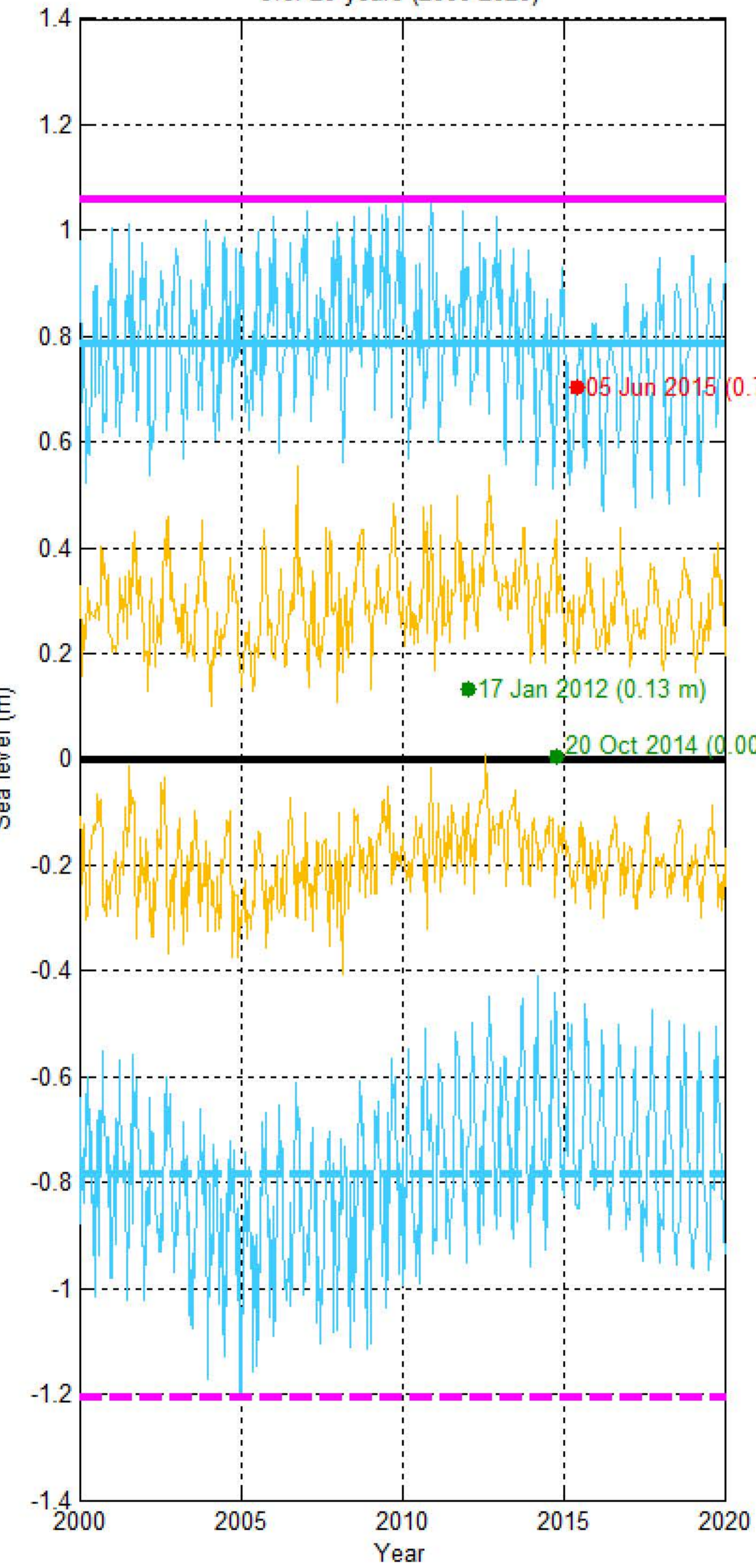
Habitat Classification and Land Cover Map



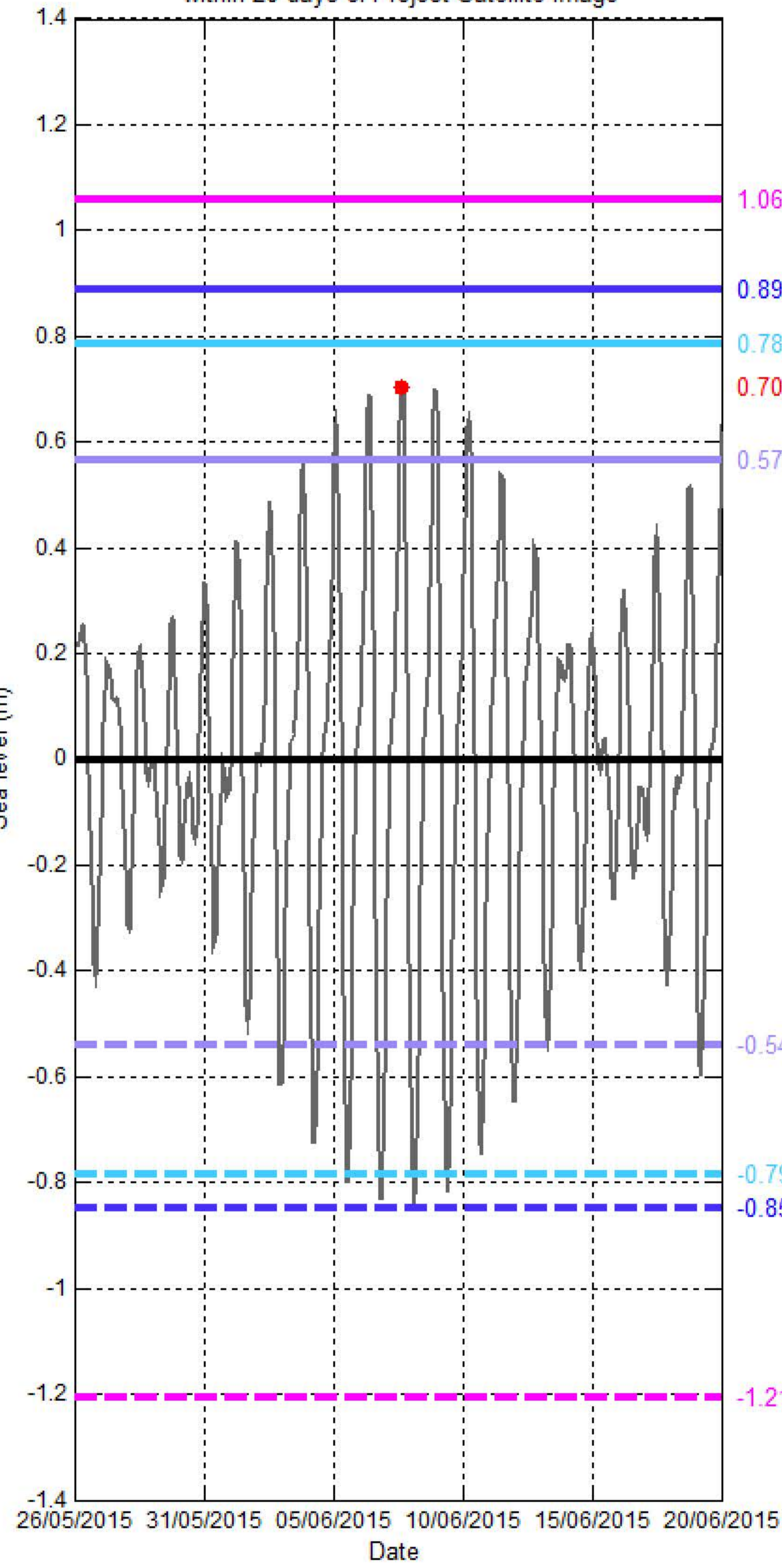
Sea level (SL) at AMBOYNA CAY

[7°53'36.32"N, 112°55'16.29"E]

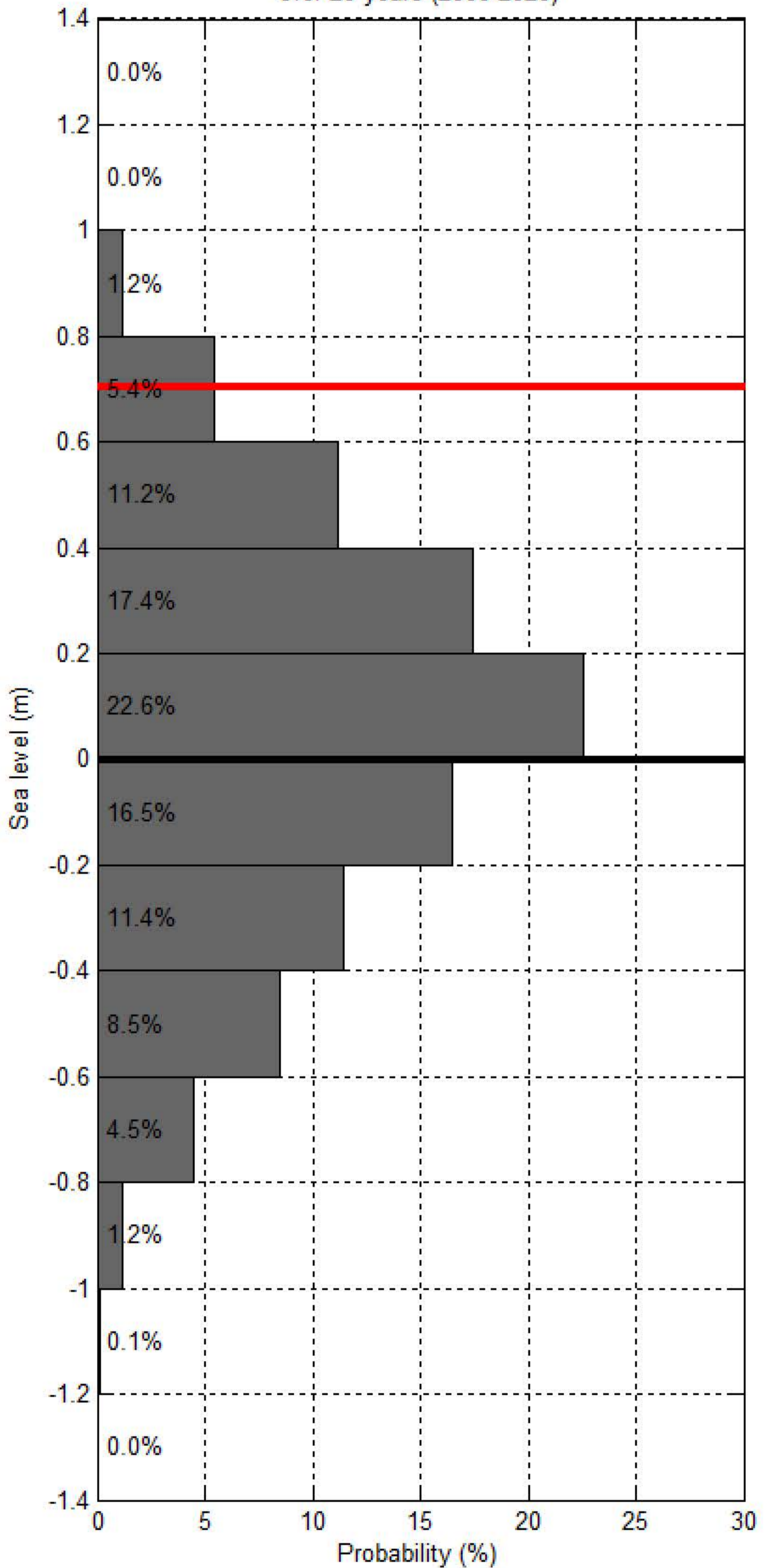
Sea level at spring/neap tide at AMBOYNA CAY over 20 years (2000-2020)



Sea level at AMBOYNA CAY within 20 days of Project Satellite Image



Probability of sea level at AMBOYNA CAY 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