

JACKSON ATOLL

10°29'52.82"N, 115°44'54.36"E

Geographic area

Jackson Atoll is an oceanic coral atoll that developed on top of a seamount in the northeastern part of the Spratlys. It is located less than 140NM northwest of the island of Palawan and over 200NM north of the island of Borneo. The closest shallow geographic feature is Nanshan Island, just under 12NM north. The overall atoll is shaped like a square, with each side measuring around 9km. This coral atoll connects five shallow reef flats, four of which are located in the corners of the square and are of comparable size. These are Hoare Reef, Deane Reef, Dickinson Reef and Petch Reef. The fifth platform Hampson Reef is smaller, deeper and located in the middle of the southern side.

Land area above water

There are no above-water land areas on this atoll in the 5 April 2014 satellite image, or in the 2 December 2011 image viewable on Google Earth.

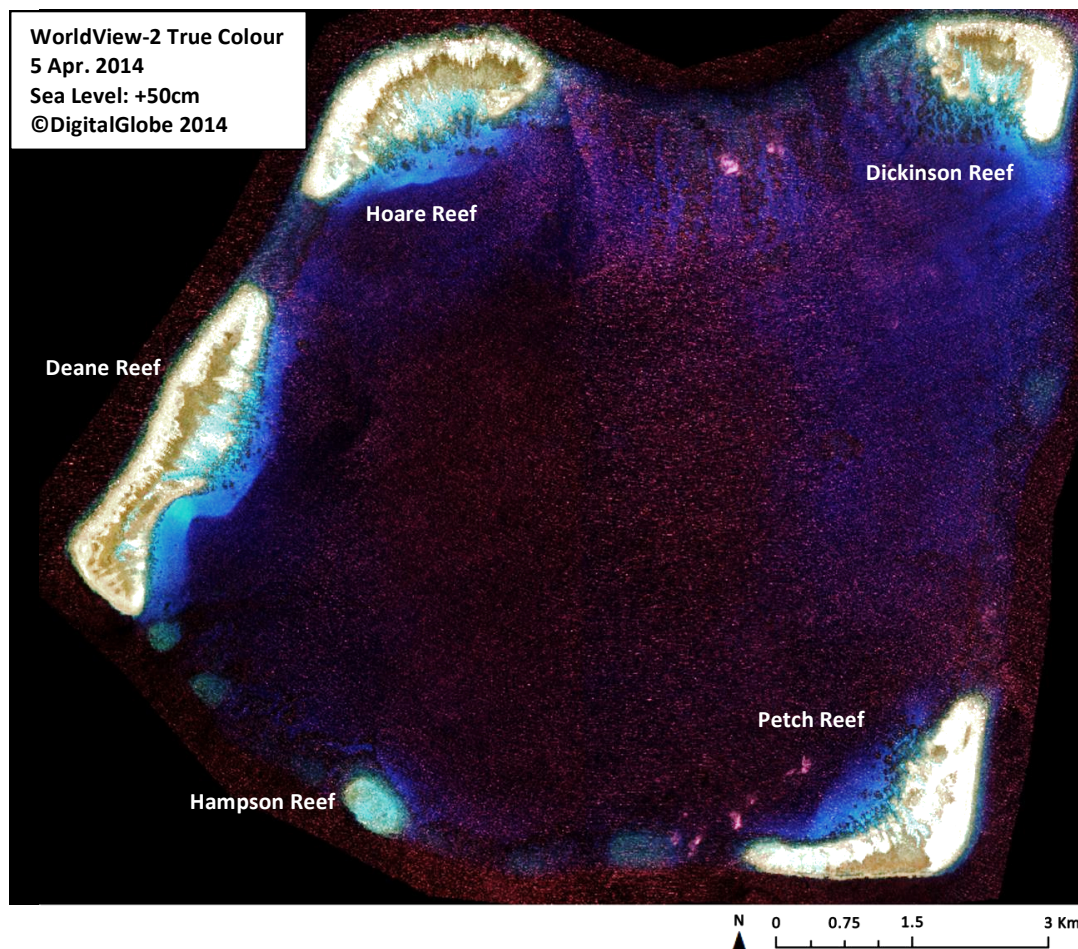
Human infrastructure

There are no man-made structures on this atoll as at 5 April 2014.

Intertidal and submerged area

The total aerial coverage of this atoll is 81.47km² comprising reef flats totaling 8.24km², a reef slope of 11.05km² (including deep coral reef platforms) and a lagoon of 62.18 km². The width of the four main reef flats ranges from 800m-1km and the length varies from 1.8km to 3.7km. They are all 1.5-2.5m deep with isolated shallower areas of 1-1.5m; Hoare Reef has the most of these. Areas that are 1.57m deep or less are expected to uncover at Lowest Astronomical Tide. All four reef flats should therefore have areas that uncover at Lowest Astronomical Tide. However, Hampson Reef is over 2m deep and is expected to remain submerged at all times. These reef flats share a connected reef slope (albeit only faintly visible in parts) where spurs and grooves are visible. The lagoon is too deep for depth calculations to have been possible throughout. Along the reef flats, the depth drops from 2-3m to 8-9m within a distance of 200m from the upper side. Depth readings of 13-16m can be observed 1km towards the centre.

Several parts of the reef flats of Hoare Reef and Petch Reef look damaged by past dredging activities and possibly other destructive human activities. Overall, they cover an area of 0.7km².

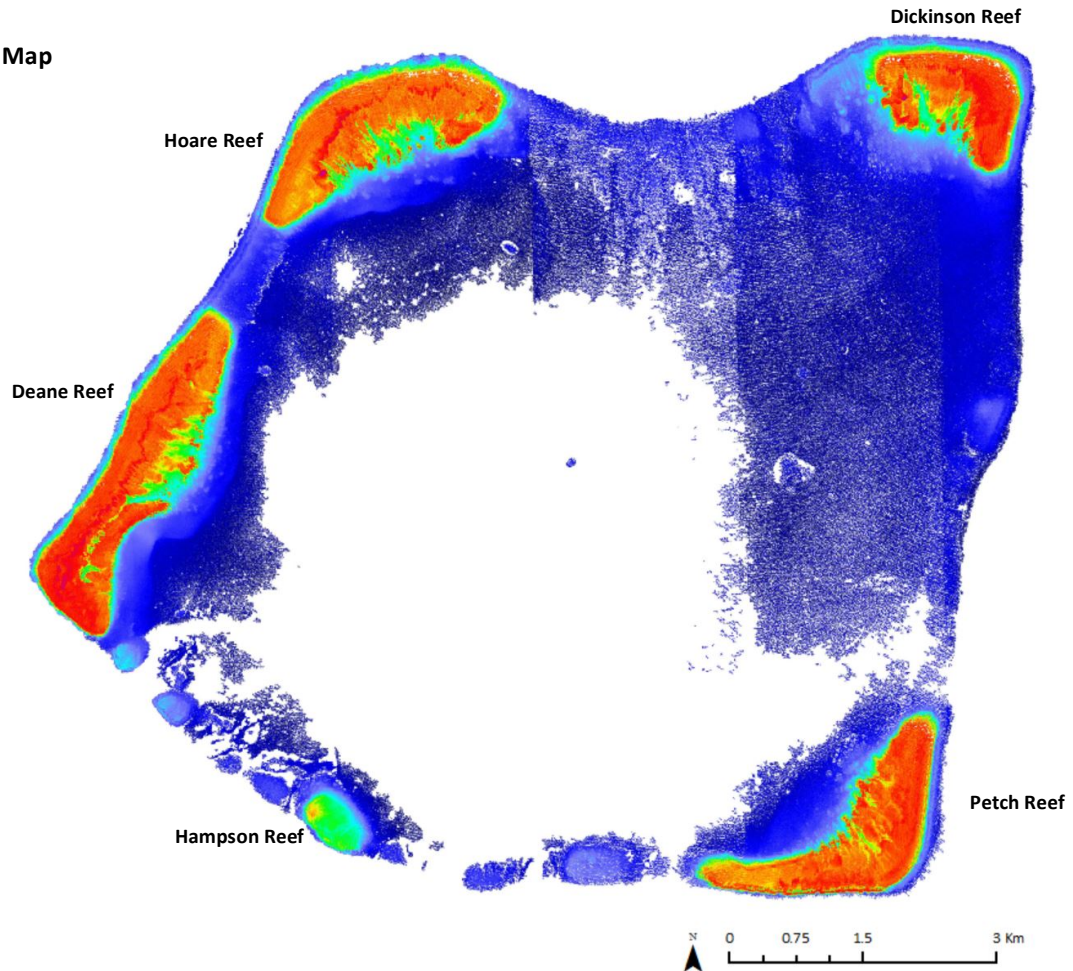


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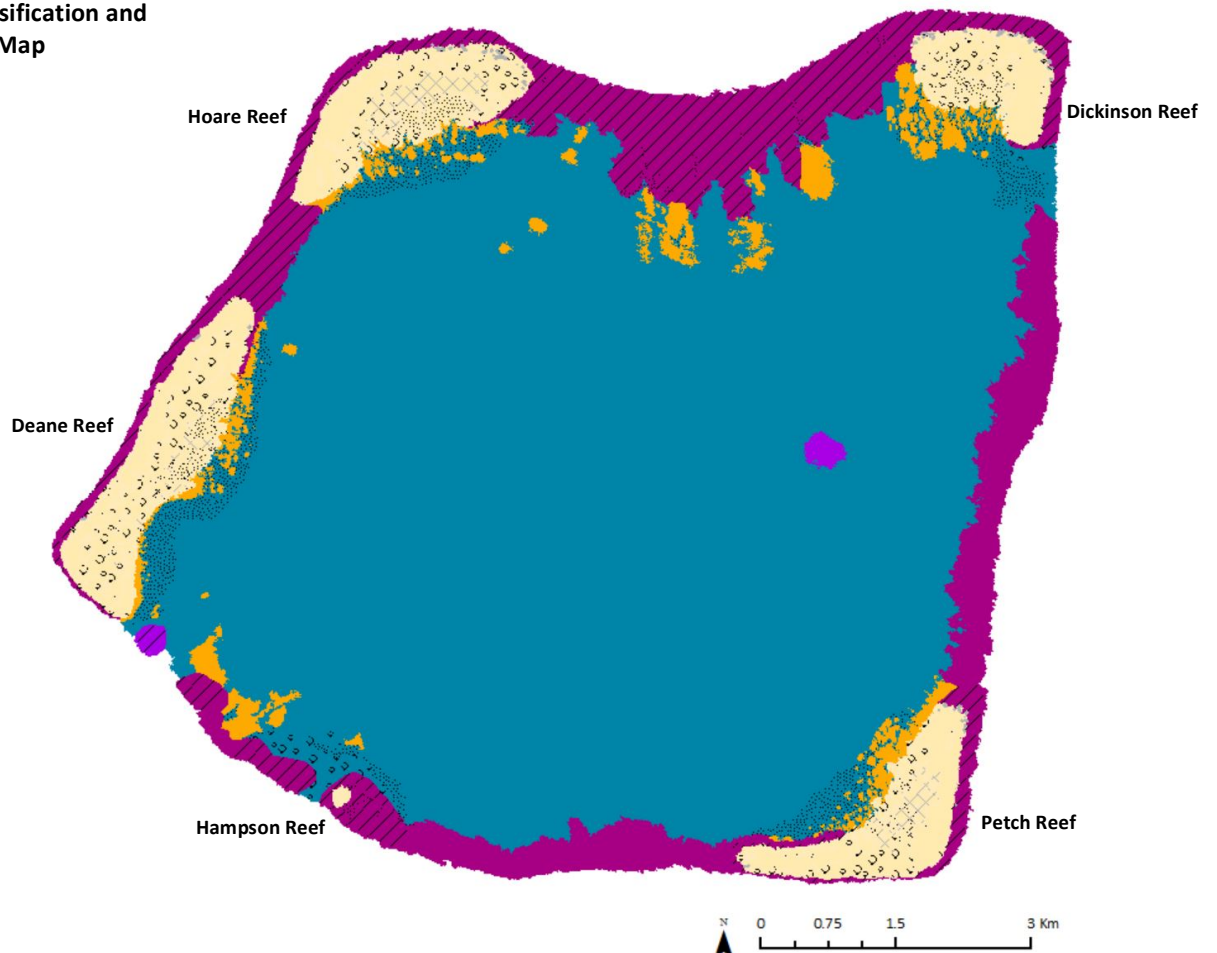
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Derived from WorldView-2 satellite data captured on 5 April 2014 [Sea Level: +50cm]

Bathymetry Map

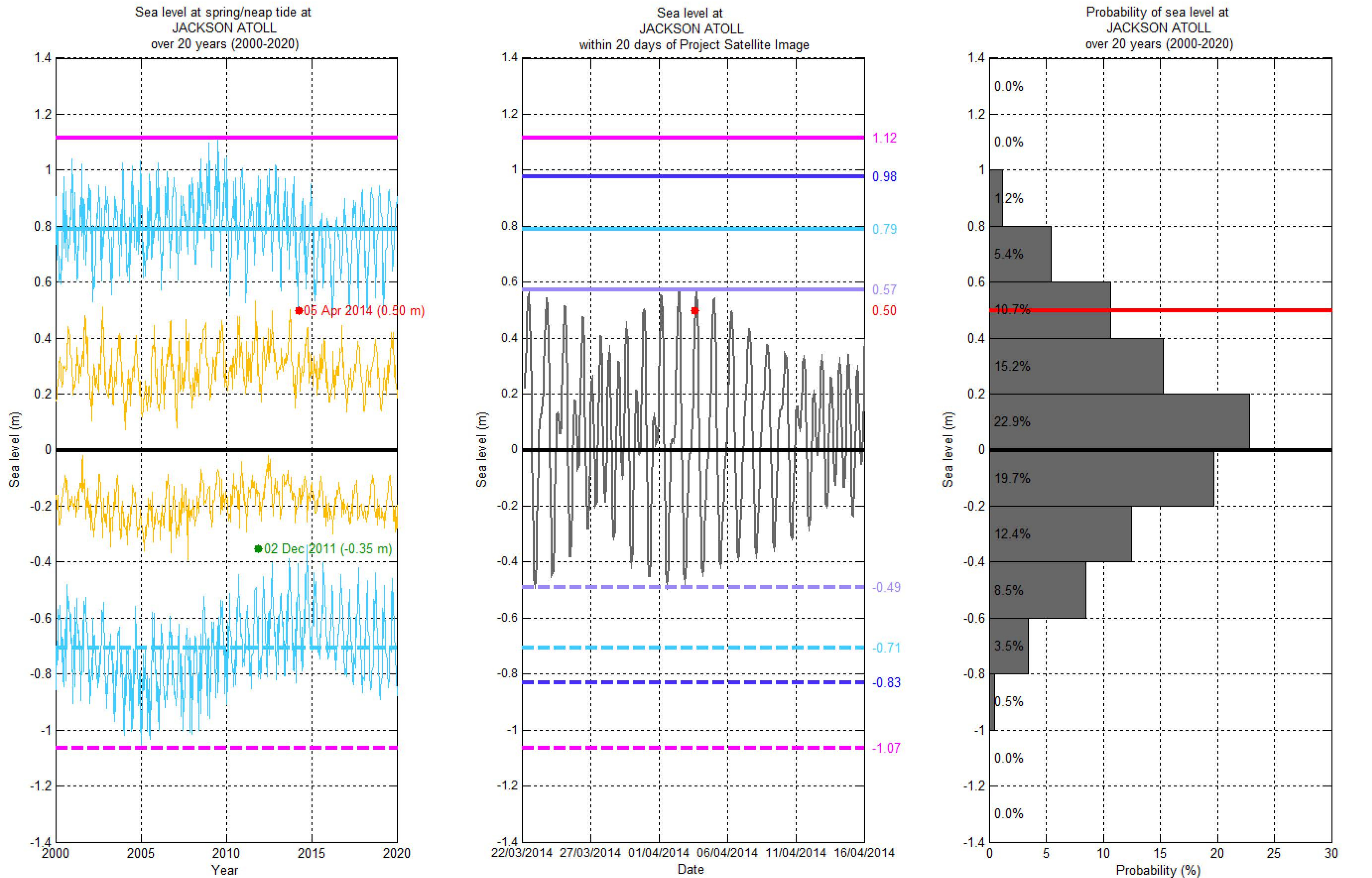


Habitat Classification and Land Cover Map



Sea level (SL) at JACKSON ATOLL

[10°29'52.82"N, 115°44'54.36"E]



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