

## SPRATLY ISLAND

8°38'41.71"N, 111°55'11.03"E

### **Geographic area**

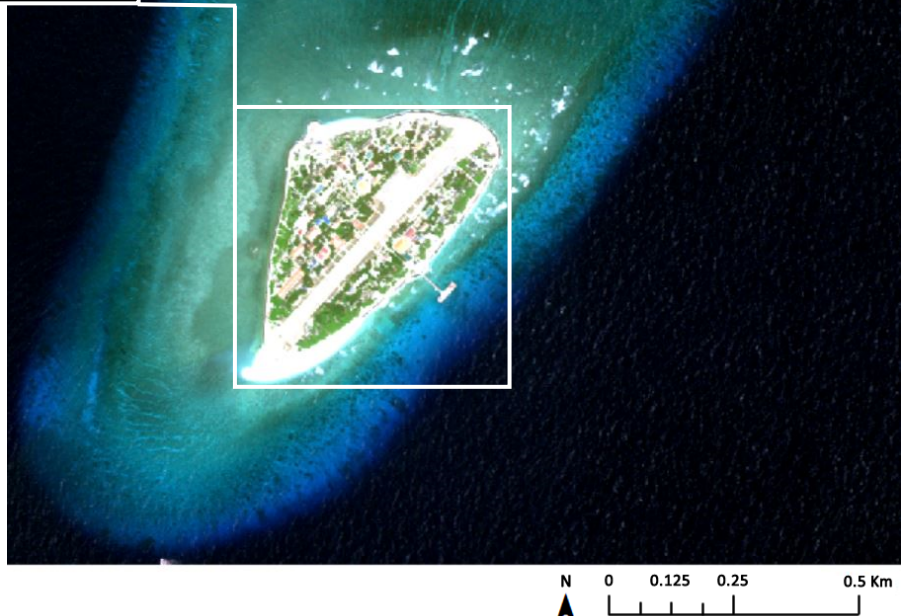
Spratly Island is located on an oceanic shallow coral reef platform in the western part of the Spratlys that is 236NM southeast of Vietnam's mainland, over 270NM northwest of the island of Borneo and more than 300NM west of the island of Palawan. The closest shallow geographic features are Ladd Reef, 13NM west and West Reef, over 19NM northeast. The reef platform extends 2.2km along its northeast-southwest axis and reaches nearly 1km along its northwest-southeast axis ( $2.09\text{km}^2$ ).



WorldView-2 True Colour  
2 Mar. 2013  
Sea Level: +25cm  
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### **Land area above water**

Spratly Island is the only above-water land area on this coral reef platform and it is located on the southeastern side of the platform. It extends 700m along its northeast-southwest axis and 350m along its west-east axis and has a surface area of  $0.16\text{km}^2$ . It is densely built up but also vegetated (41% of the above-water land cover). Two small white sand beach areas are visible on the northwestern side (10m long) and southern tip (20m long) of the built-up area.



### **Human infrastructure**

On 2 March 2013, close to 35 buildings can be counted, as well as an additional 20 smaller man-made structures. Solar panels and a drainage system can be observed, as a 550m-long runway and a 1.6km-long reinforced seawall that encloses the above-water built-up area. A lighthouse or observation tower is also visible on the northwestern tip of Spratly Island. A 70m-long jetty and a pier extend from the middle of the southeast-facing coast, over the outer edge of the reef flat (which is very narrow in this location). Recent satellite images published on the internet suggest that additional land extensions have been constructed on the northwestern and southern tips of Spratly Island.

### **Intertidal and submerged area**

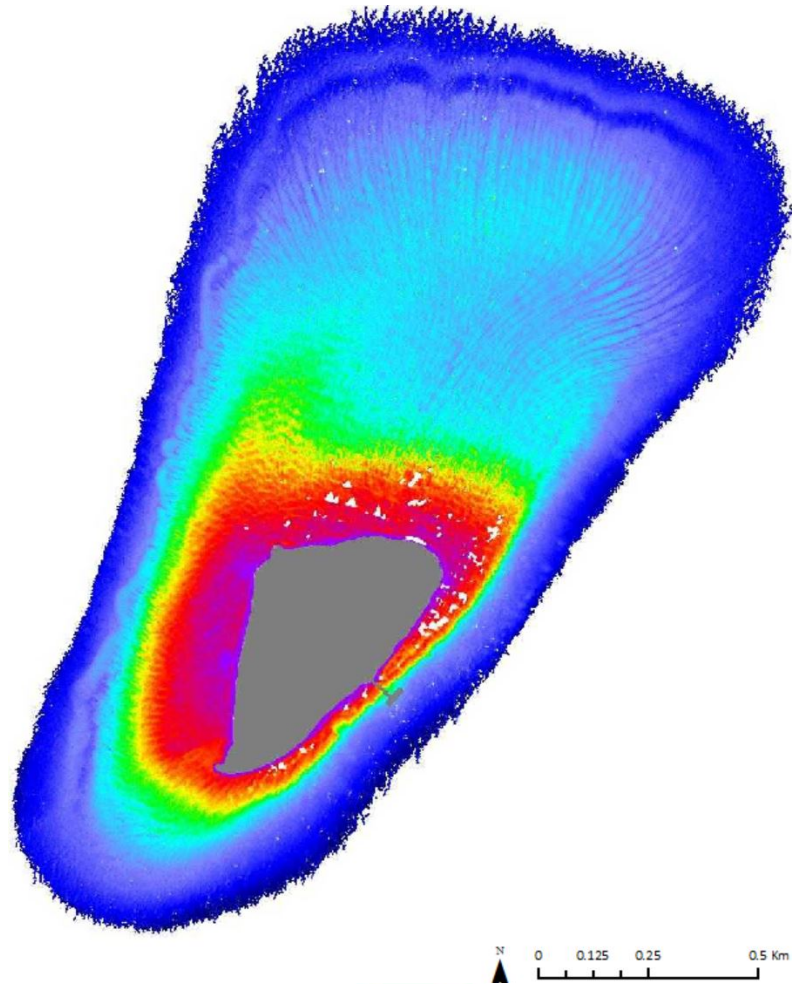
The aerial coverage of the reef flat is  $0.21\text{km}^2$  and of the reef slope is  $1.73\text{km}^2$ . The reef flat extends only 130-160m seaward on the southwest and northwest facing sides of Spratly Island and little more than 50m from the southeast facing side. It is mostly 1.5m deep or less at 25m above Mean Sea Level. Large parts of the reef flat are therefore expected to uncover at Lowest Astronomical Tide when the sea level is expected to decrease by 1.52m. The reef slope extends over 1km seaward on the northern side of the shallow reef platform and around 370m on the southwestern side. Pronounced and long spurs and grooves are visible throughout, some following the entire length of the reef slope.

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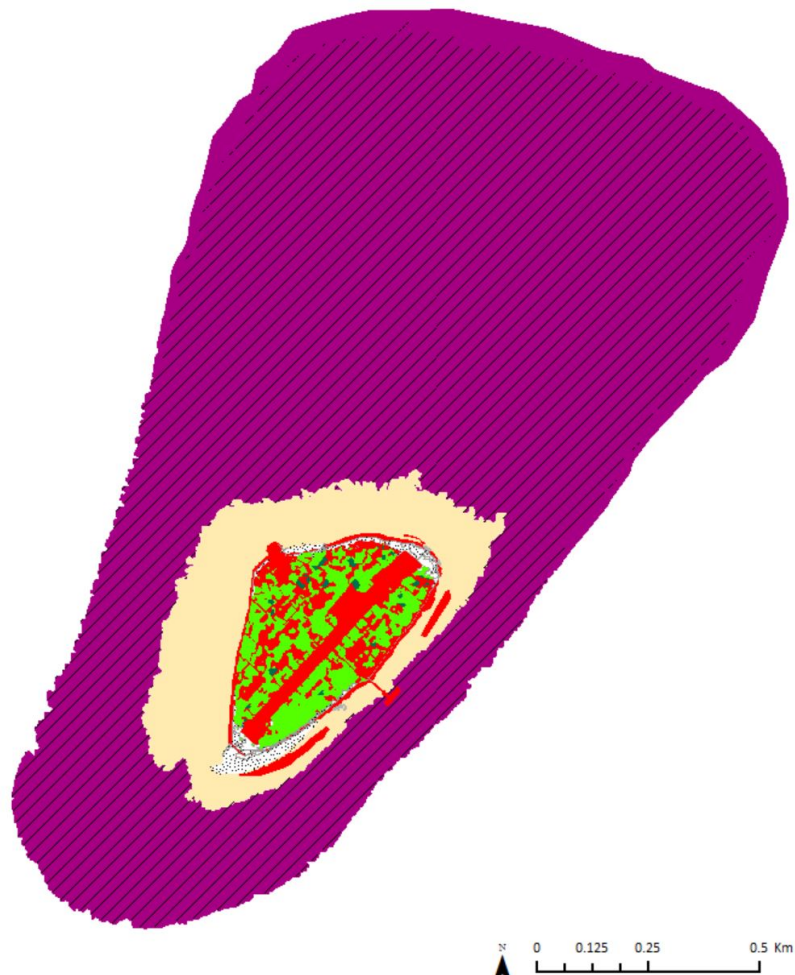
8°38'41.71"N, 111°55'11.03"E

Derived from WorldView-2 satellite data captured on 2 March 2013 [Sea Level: +25cm]

### Bathymetry Map

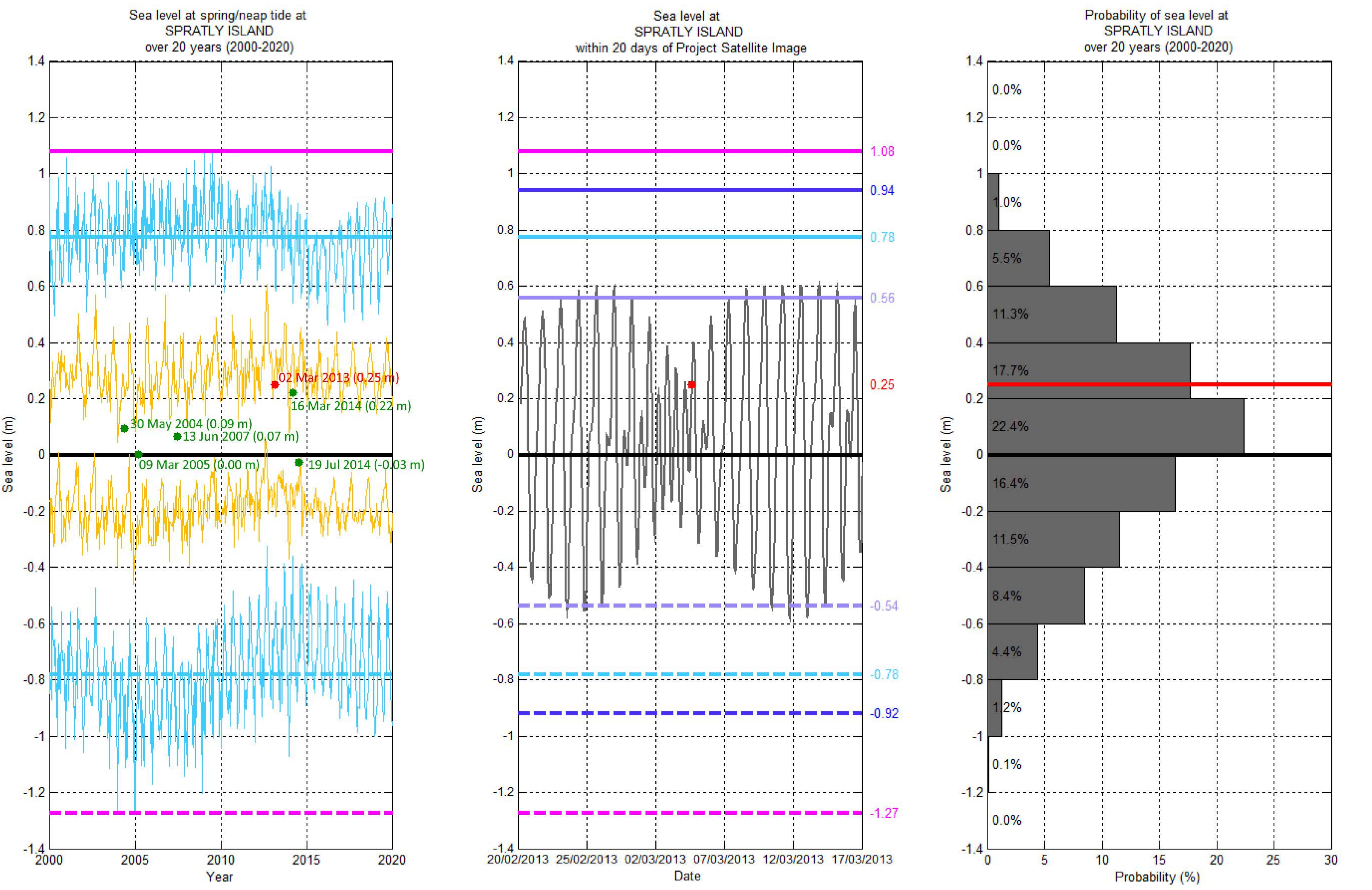


### Habitat Classification and Land Cover Map





Sea level (SL) at SPRATLY ISLAND  
[8°38'41.71"N, 111°55'11.03"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