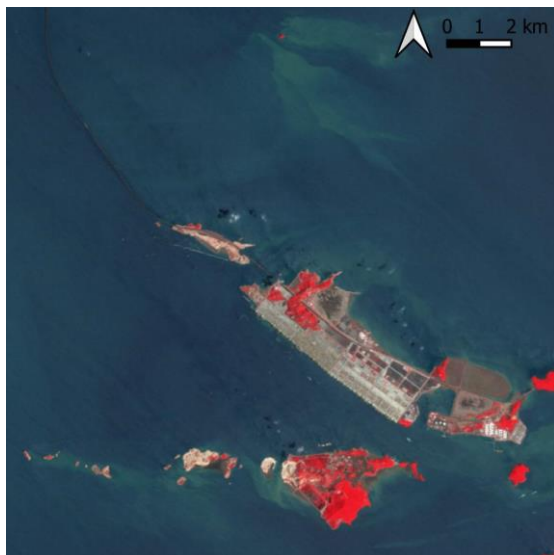
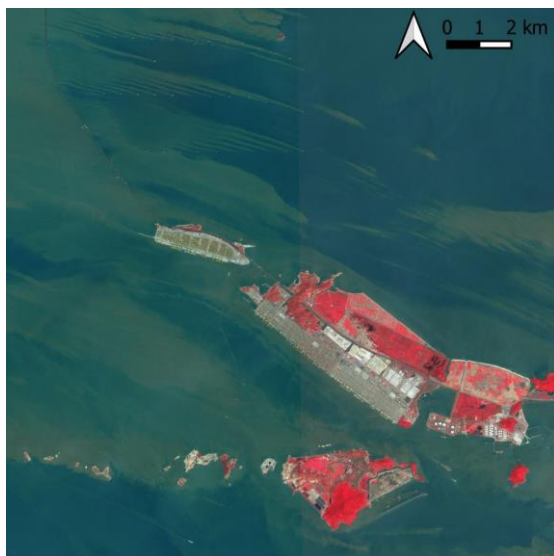


Landsat 5, 2000-06-06 (false colour infrared)



Landsat 5, 2010-08-05 (false colour infrared)



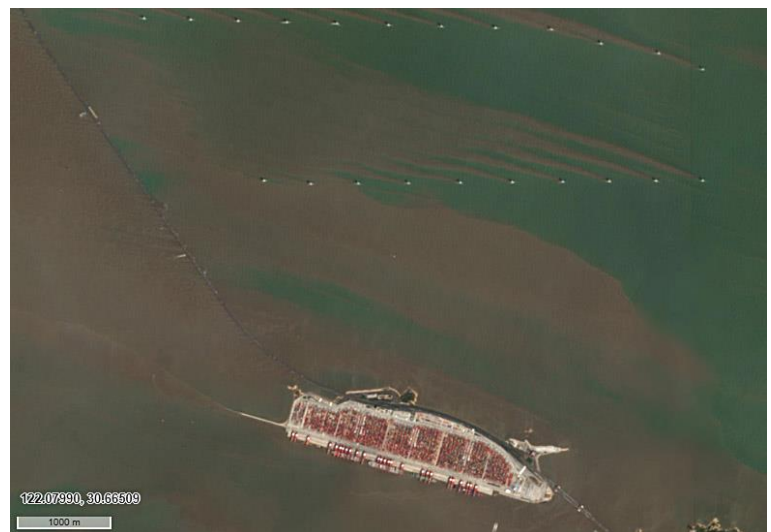
Sentinel-2, 2022-08-13 (false colour infrared)

The Yangshan Deep Sea Port is located on Yangshan Island, approximately 32.5 kilometres from downtown Shanghai.

The port covers an area of about 2,000 hectares and features over 130 berths for various types of vessels, making it one of the largest container ports globally. The port handles more than 43 million TEUs (standard containers, Twenty-foot Equivalent Units) annually, making it one of the world's busiest ports. The Donghai Bridge connects Yangshan Island to the mainland, stretching over 32.5 kilometres and standing as one of the longest sea bridges globally.

Situated adjacent to Yangshan Port, the Donghai Bridge Wind Farm was China's first commercial wind farm. It boasts more than 60 wind turbines with a combined capacity of over 200 megawatts (MW).

The satellite maps show the changes due to the construction work of the port, the bridge, and the wind farm. The false-colour infrared representation highlights the vegetation in red.



Sentinel-2, 2022-08-13 – True colour image showing a part of the port and of the adjacent wind farm.



Exercises

- Looking at the false-colour satellite image maps, try to identify different land cover classes (vegetation, water, built-up areas).
- Try to estimate the total area of the container port.
- Is the water surface always of the same colour? Why not? Think about the shallow waters along the coastline around Shanghai and about the sediments brought in by the large rivers such as the Yangtse.
- Have a look at the structures in the water colour and think about the reasons. Think about wind, sea currents, ship traffic, ...
- Based on these considerations, what do you think are reasons why the port has been placed here and not directly at the coast?
- Following these considerations, what could be advantages of this region with respect to windfarms?

Additional Material



View of the container terminals of the Yangshan Deep Sea Port (photo: Gmbsfd)

Links and sources

- <https://mpoverello.com/2022/04/21/satellite-maps-shanghais-supply-chain-standstill/> Sentinel-1 images show the consequences of the Covid-19 pandemic for the ship traffic

