



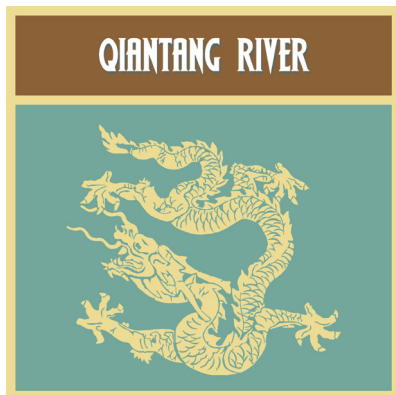
La Spezia | Italy

Tide: 0.4 m

Type: astronomical tide

La Spezia is a small commercial and touristic harbour.

Here the tidal shift isn't particularly marked.



Qiantang River “*Black Dragon*” | China

Tide: 4 m

Type: tidal bore

This phenomenon happens every year at the river mouth when the moon's attraction is at its strongest. It lasts about a week and it can generate waves up to 20 m high. Tide waves travelling upriver, therefore from sea to land, become quite important due to the quick seabed rise and the funnel shape of the bay which shrinks from 150 to 50 Km.

Weather conditions, together with the strong local winds, can contribute to further increase the wave height.

Mazara del Vallo | Italy

Tide: 1.5 m

Type: meteotsunami

This phenomenon is a sudden and unexpected sea level rise (over 1.5 m) caused by winds and rapid changes in barometric pressure over the open sea.



Mont Saint-Michel | France

Tide: 14 m

Type: astronomical tide

Located at the mouth of Couesnon River, Mont Saint-Michel is a tidal island; this means that when the tide is high it is periodically surrounded by water. In fact access to the island is only permitted during low tide when the sea is 15 Km from the coast.

As the tide arrives, at the speed of a galloping horse, the sea level rises about 14 m higher.



Amazon River | South America

Tide: 3 m

Type: tidal bore

This phenomenon is called *Pororoca*, which means *loud destructive noise*.

This phenomenon forms when the water flows from the Atlantic Ocean into the Amazon and neighbouring rivers as a consequence of the rising tide. The tidal wave can be more than 4 m high and travel up river for more than 13 Km.





Bay of Fundy | Canada

Tide: 20 m

Type: astronomical tide

This is the place in the world where the tide reaches its maximum amplitude. The reason for this is that here the time taken by the first large wave to go from the mouth of the bay to the inner shore and back is equal to the one between two tides.

In as little as 12.4 hours, the displacement of water can reach 115 milliards of tons, which is comparable to a seven storey building moving periodically back and forth from the shore.



Pisa | Italy

Tide: 0.4 m

Type: astronomical tide

This city lies close to the mouth of the *Arno River*.

The absence of dams or barriers allows small and medium boats to navigate upriver from the sea to the city. The tidal shift isn't particularly marked.



Portishead | Great Britain

Tide: 16 m

Type: astronomical tide

The name of this town comes from "port at the head of the river". In fact Portishead is on the southern bank of a 4 rivers estuary. The bright color of the houses along the marine is in contrast with the color of the water which is dark brown due to currents and tides.

Fitzroy | Australia

Tide: 14 m

Type: astronomical tide

Fitzroy is an island in Australia in the *Great Barrier Reef Marine Park*, reachable in about an hour of navigation from the coast.

With its coral reef, the white beaches made of coral fragments and the pluvial forest, this island is a natural paradise. Through the low tide events the coral reef is visible even from outside the water.



Miyajima Island | Japan

Tide: 4 m

Type: astronomical tide

Oodorii's door is a symbol both of Miyajima and of Japan. It stands on poles which are 17 m high and with a circumference of about 10 m. You can navigate through this door or walk to it when the tide is low.



Venice | Italy

Tide: 1 m

Type: astronomical tide

The high water phenomenon happens when the south wind, scirocco, blows. The water level increases during the high tide reaching peaks of 1.6 m.

The limited sea floor depth, together with the *Adige* and *Po* rivers flood, also contributes to the high water phenomenon. The two rivers, in fact, discharge a large amount of water near the lagoon.





Paraty | Brasil

Tide: 1 m

Type: astronomical tide

This colonial town is built below the sea level and surrounded by water on three sides.

Its original 17th century pavement is designed to be washed by the water incoming gently and it works as a drainage system when the tide is at its maximum height.

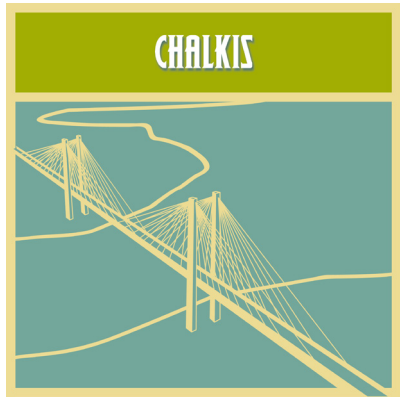


Bassas da India | Indian Ocean

Tide: 4 m

Type: astronomical tide

This is a group of uninhabited islands forming a round atoll. The total surface is only 0.2 km2 and the maximum height is 2.4 m above the sea level. These islands are also a hazard for navigation as during high tide they are entirely submerged.



Chalkis | Greece

Tide: 0.8 m

Type: tidal currents due to astronomical tides

Along the *Euripus Strait* there are two high tides and two low tides daily.

For about 23-24 days the current flows in a direction for about 6 hours, then it stops for a short time, and finally it starts flowing in the opposite direction. During the last few days of the month strange things can happen: the current might not change direction at all or change even 14 times a day.

Messina Strait | Italy

Tide: 0.2 m

Type: tidal currents due to astronomical tide

This strait joins the *Tyrrhenian Sea* with the *Ionian Sea*. Because of tides and strongly because of weather conditions the two basins differ in height by 0.5 m and their tendency to level up generates the currents typical of this area.

These currents switch direction every 6 hours, standing almost still for a short interval before flowing in the opposite way.



Rio Gallegos | Argentina

Tide: 18 m

Type: astronomical tide

Due to the large tidal movements, when flowing into the Atlantic Ocean the river gives life to an impressive show of colours.