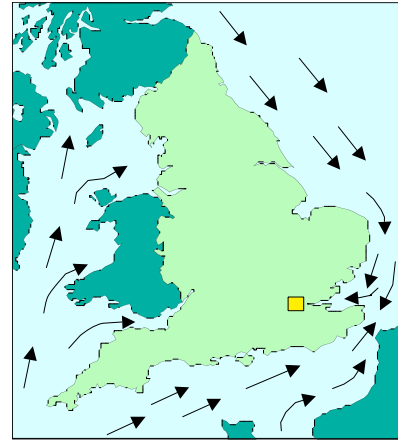


Tides are the movement of water around the coasts caused by the gravitational effect of the sun and the moon.

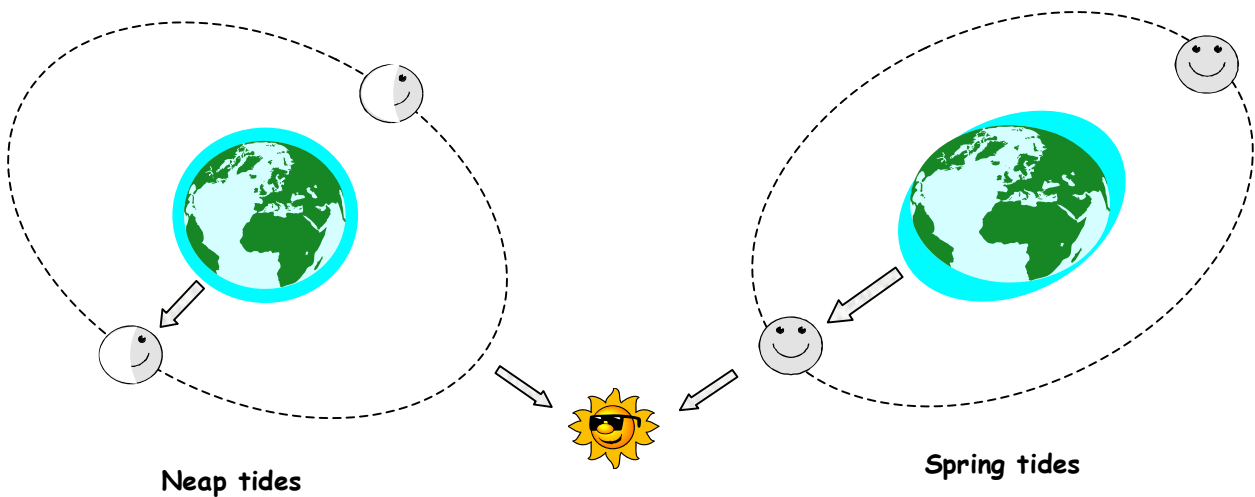
Along the south coast of England the water moves up the English Channel from the west, flowing up the rivers. This movement is called **the flood**, and will result in a high tide. The Movement of the water in the opposite direction called **the ebb** will result in low water.

The diagram opposite shows the water flow indicated by the arrows.

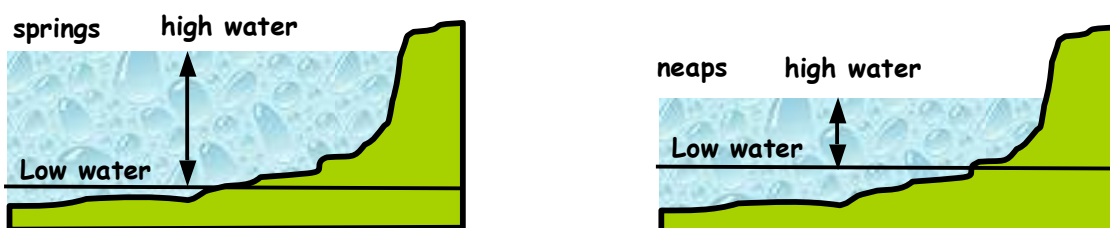


The sun and the moon cause two very high and two very low tides called springs and two neaps (medium height) tides per month and two tides per day in many parts of the world. See diagram below.

Each flow of water lasts approximately 6 hours.



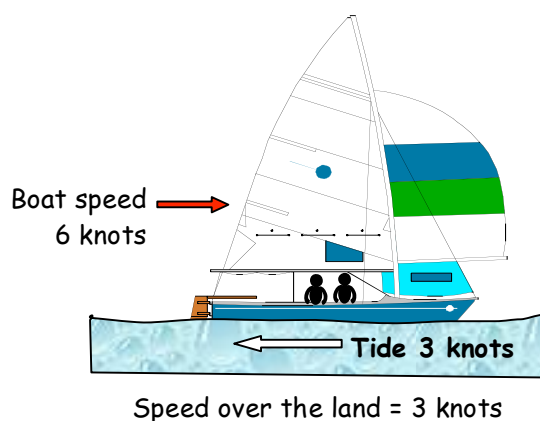
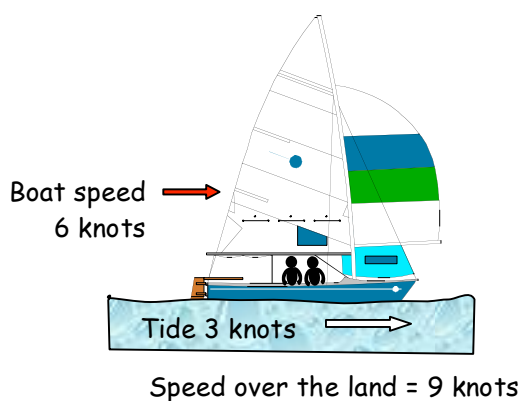
The diagram below gives an indication of the difference between spring tides and neap tides.



IYT/ SiA Effect of the Tidal Stream

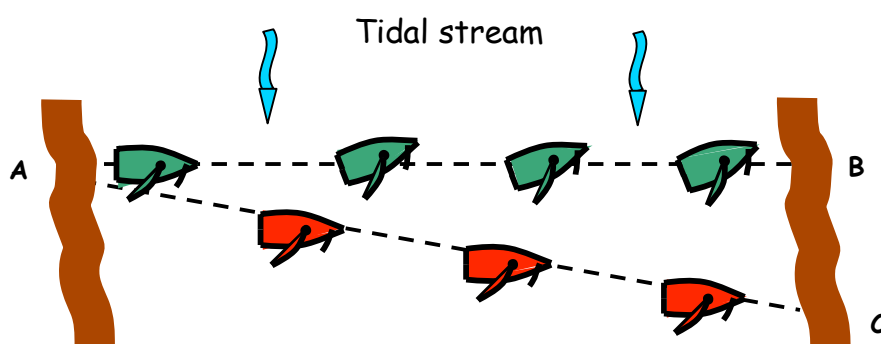
Sailing with or against the tide.

The tidal stream can either hold you back or try to push you along. This will either affect your decision on which direction to travel or when to leave. If you want to travel against the tide and your boat does not have a high speed and the tidal stream is strong you may not travel anywhere.

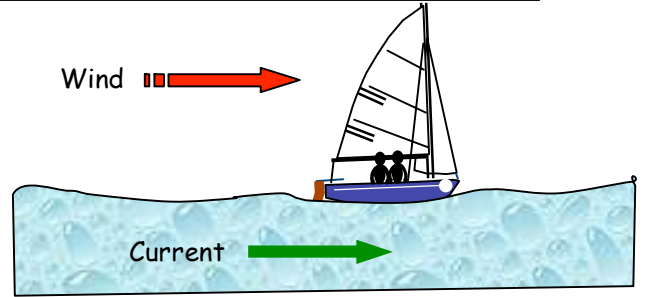
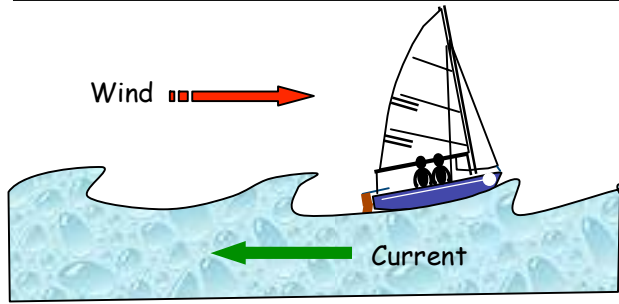


Sailing across the tide:

The tide will push the boat sideways so to arrive at point B the green boat heads up into the wind slightly and ends up at its destination B



Without compensating for the tidal stream the red boat ends up at C, downstream of its intended destination B



Wind against tide increases the surface friction.
Wave crests curl up, perhaps break and the back of the wave becomes steep

When the wind and tide are travelling in the same direction there is little friction between air and water and the sea looks smooth and rounded.

If there is no wind blowing there are no waves, although often there is a swell left from earlier wind, or wind blowing many miles away.