

WEEK

# 11 FORCES OF NATURE

**Position:** -55.1411,  
-101.226  
**Time:** 2017-01-12  
08:10:00 UTC

Next Week:  
Fisheries Depletion  
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**By Rich Wilson, Skipper  
Great American IV**

At sea on a clear starry night, one likely feels exceptionally small when confronted by the enormity of the universe laid out in front of one's eyes. It is impossible to describe the relative sizes, except to say that we are tiny.

Similarly, in a storm at sea, one will feel the immediate effects, on the boat, on the sailor, the force of the wind, the violence of massive waves, yet still, one only can experience that which is immediate and nearby, within one's own horizon.

So when you look at the chart, and see that we have been sailing for 10 days since New Zealand, and that we have another 10 days to go to get to Cape Horn, how do you consider, and understand, that enormity of this Pacific Ocean? Or can you? In the storm that we had, how do you connect to the fact that that storm was hundreds of miles

across? And that every little local area, as the area that affected us, will have similar forces of wind and waves?

I cannot comprehend that enormity. Yet I know that I can, and must, respect it. And perhaps this is the best that we can do in other areas of nature. We must respect it, both to defend our tiny physical selves from its enormity, but also to admire it and be amazed by it. We might consider the notion that these powers and forces were here long before we were, and in some sense, we are the intruders, or at the very least, the newest neighbors, for that which has existed for millennia.

The power of an earthquake, or the mass of water flowing down one of the great rivers of the world, the gigantic glaciers, veritable rivers of ice, the incomprehensibly massive oceans of the world – aren't we lucky to be here to observe and live alongside such amazing and massive forces!



**by Captain Murray Lister  
Master Mariner**

As a young sailor and before I became an Officer and later a Master Mariner, I remember an elderly gentleman telling me, 'The sea is safe until you forget it is dangerous'. This is absolutely true when considering the forces of nature. These 'forces' can include wind, waves, swells, currents, volcanoes, hurricanes and typhoons.

In my 50+ years at sea, nature twice dictated that her forces would have me very concerned as to whether I would get home. The first was in an area South of New Zealand, where 'Great American IV' will transit. In these latitudes a swell train goes virtually around the world coming basically from a WSWly direction. This voyage an extremely strong storm sent winds from the NW and thus with the standard swell and the storm swell from two different directions, there was a very confused sea state. Being in a quite small research vessel, it was impossible to sleep for almost two days as we struggled our way North to make the shelter of an island at the bottom of New Zealand. It is times such as this, that diligent ship handling becomes very necessary, otherwise serious ship damage can be incurred, with possibly, the loss of the vessel herself.

The second incident was in the South China Sea when caught in a Typhoon with very little room to manoeuvre. Winds in excess of 75 knots, and a swell height of at least 10 metres dictated that

we needed to heave to, with the weather on our Port bow and speed rung on for around 10 knots. While the vessel pitched and rolled violently at times, we were able to hold our course, however our 'speed over the ground' on GPS showed that in fact we were going some 3 knots astern. The situation lasted some 12 hours until the weather abated somewhat, at which stage we were able to come back to our correct course. What was the most alarming bit, came next morning when the Chief Engineer informed me he had needed to nurse the main engine all night as there was a problem with one of the cylinders. Given that the engine was to stop, we would have been in dire straits.

Thus there comes from these few words, another saying: 'Love the sea but respect it fully'.



## NEWS EXPLORER

Search the national and world news sections of the newspaper to find articles describing events caused by forces of nature. Possible examples include hurricanes, blizzards, tornadoes, floods, earthquakes, and volcanic eruptions. Locate each of these events on a world map.

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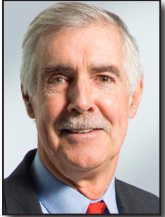
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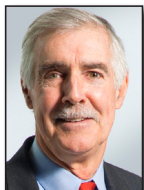
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