

9000 miles in the Southern Ocean

By Evans Starzinger & Beth Leonard

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Beth wanted to see the giant Wandering Albatross in its natural habitat, and I wanted to sail the old Southern Ocean whaling grounds. So, we undertook a different sort of summer cruise this year and sailed 9,000 miles non-stop east from Cape Horn to Perth, Australia.

Prevailing westerly winds in the Southern Ocean create a natural east-bound route across all the S. Atlantic, Pacific and Indian Oceans. Every year a dozen or two cruising boats quietly follow these Southern Ocean routes. We were unable to find many factual descriptions of cruising in the Southern Ocean. I asked one Whitbread veteran what it was like, and he gave me the cryptic answer, "It's all shades of grey." I now suspect that was a description of emotions on board a race boat down here, as well as the weather. Based on various books and articles we expected lots of rip roaring downwind sailing, but it turned out quite differently. Weather descriptions in the daily e-mails sent from Vendee Globe and Volvo race boats painted a more accurate picture of highly variable conditions with lots of light air pockets. In summary, going east in the Southern Ocean is a bit more challenging than similar east-bound passages across the North Atlantic or Pacific (at say 40-45N), but very do-able for a well found cruising boat. The obvious time to make such a passage is in summer (Dec. to March), planning to arrive at your destination in late March (or even early April in El Nino years) to minimize the chances of encountering a cyclone.

As we left the Beagle Channel fifty miles north of Cape Horn (55°S) the water temperature was 42°F and Inmarsat was issuing numerous iceberg warnings - too cold for us. Making a hard left turn, we sailed up to the British Admiralty's recommended square rig route along 42S, where the water temperature rose to a more reasonable 55-60°F and the nighttime air temperature with it. The first week was a slow one, hove-to in three northeasterly gales as lows tracked over us, and becalmed twice in between the lows, as we worked up to 42°S.

Sailing due east, after reaching 42°S 42°W, the weather started to cycle between two patterns as fronts passed over every 3 or 4 days:

February 16-23rd. A 956mb low at 48°S is to our SE with a long cold front extending all the way N up to 30°S. Two days ago we edged up to 40°S from our normal track along 42°S in order to minimize the effects from this front. However, the wind is still NNE 30-35 knots with 45 knots in the squalls. We are sailing with only the staysail genoa up. Normally we would run off a little in such conditions, but we don't want to slide south into the worse weather closer to the low, so we keep heading due east. With 15-20 foot waves on the beam pushing us south every time they wash over the boat this requires an

apparent wind angle of 60-70 degrees. The sky and water are leaden grey. Storm Petrels circle the boat. Beth and I agree we never want to name a boat "Storm Petrel" if this is their preferred weather. All the bigger birds seem to have flown off in search of better conditions.

Hawk's unusually high stability (47% ballast ratio in a deep bulb keel) is a tremendous asset in these conditions as is the hard dodger. We can sit dry under the hard dodger in shirt sleeves reaching out to adjust the steering and sheets while waves slam across the decks and wash over the windshield. We got an e-mail some weeks later that friends of ours in a Rhodes 41 were knocked down to 120 degrees several hundred miles north of us around this time. Their wash boards were not all in, so the interior got quite wet, but the rig stayed intact. They set a series drogue and comfortably sat out the rest of the blow.

March 5th - 9th: A front passed over last night with heavy rain. The sky is a bright light blue with lots of puffy white clouds. The sea is a sparkling dark blue with a long 3 foot SW swell, a smaller SE swell and some random chop. Three different types of albatrosses are sitting becalmed in the water because the wind is a too light for them to get aloft – about 5-8 knots shifting back and forth between S and W. We see whale blows about a mile away – looks like a pod of sperm whales from the shape of the blows and the tail shape as they dive. We have the main and code zero (light weight reacher) up and are managing to make 4 or 5 knots a bit south of course. The wind seems to be shifting to the W which is exactly opposite from the weather forecast. Beth is baking cinnamon raisin bread and I have been plotting our approach through the reefs to Perth.

A plastic water bottle floats by. This would be unnoticed in another ocean but here we stand and watch it go by. It is the first piece of trash we have seen in 6,000 miles. We have seen no ships at all. This is an empty ocean. A few nights ago the BBC news reported that Kingfisher (Ellen's maxi-cat trying for the Jules Verne record) had been dismasted about 1,000 miles in front of us and was now also making for Perth. We wonder if perhaps the water bottle came from them.

We had heard stories of extreme waves due to the long fetch in the Southern Ocean, and they did seem perhaps 25% bigger than in other oceans. However, the lows generally moved so fast there was not that much effective time to build up large seas. Only when a deep low set up below a strong high, creating a large area crush zone did the waves really pile up. Even then the bigger waves were generally quite well behaved with long periods. The really distinctive feature of the Southern Ocean water is that it is never still. Often when becalmed elsewhere the water lies down to an oily smooth surface. Not in the Southern Ocean, where it is always heaving with several different swells from lows in the deep south. This boiling surface rolls the air right out of the sails and makes light air sailing a real challenge.

On a passage this long we carry only just enough fuel for battery charging. Even at that, we need to use our windvane as much as possible rather than the electric autopilot to save power. So, it's a pure sailing adventure. We look longingly at the starter button when

the mainsail is banging back and forth in light air, but the hard cold math is clear – we cannot even think about motor sailing.

The major routing decision is how far south to sail. We used the old Admiralty recommendation for square rig ships, tracking mostly between 40S-42S, and encountered both lots of light air and about one gale a week. 26% of our apparent wind was less than force 3 and 24% greater than force 6. 26% was forward of 70 degrees apparent and 49% aft of 110%. We considered dropping down along 45-47°S where the wind was generally steadier from the west and about 15kts stronger than along our 42°S track but about once a week a storm blows through with 45-50 knots sustained, which is a bit breezy for us. The great circle route runs down into the deep 50s. This is 2,000 miles shorter than our route and daylight is much longer, but it's cold, with icebergs to worry about and a good deal of easterlies as lows pass north of the track. Of the half dozen other cruising boats we know that have sailed Southern Ocean legs, all but one went south in search of more wind when they got tired of the kind of light air we've been dealing with, and all but one of those were knocked down past the horizontal when they found more wind than they wanted. All also ended up with relatively slow average daily runs – about 100 miles per day – because of the time spent hove-to or forereaching in gales. None of the Southern Ocean options are a milk run, but all in all, 42°S seemed a good choice for a boat which sails well in light air and perhaps 44-45°S otherwise.

The rapid passage of fronts and lows made for a great deal of sail handling. We rarely managed to go more than five or six hours between major sail changes. February 2nd, two weeks into the passage, was typical. We were flying the poled out jib and staysail overnight when we had 20 knots of wind over the stern, then the wind went light around 0400 and came on the beam. Evans got out of bed and we dropped the staysail, got rid of the pole and put up the main. By 11:00 the wind had gone aft and very light, so Evans got Beth out of bed and we dropped the main and put up the spinnaker. By early afternoon the wind had built, and we had dropped the spinnaker and put up the poled out jib and our small blast reacher to leeward. All of these sail changes were carried out on a deck that flicked from side to side most energetically with the large swell. We will never again take for granted winds that are consistent in wind speed and direction - how fortunate we are as sailors that most of our planet's winds act less winsomely than those down here. In this kind of sailing there is unfortunately less room for the contemplation and creativity that have been such a highlight for us on other passages. When all watch, every watch, is spent handling the boat and all off watches are spent in an exhausted not quite sleeping state waiting for the next call to go on deck, we ended up not too far removed from torpor where simply doing another sail change or making another meal seemed milestone tasks in the day.

When we passed the latitude of Cape Agulhas and entered the Indian Ocean, we were surprised to see the water temperature jump to 77°F and the boat speed jump by 4 knots as for two days we rode an easterly counter current to the great Agulhas current that sweeps down the east side of Africa and west under the Cape of Good Hope. For the first time in a year and a half, we donned shorts and tee-shirts and sweated in our bunks. This

breath of tropical air stayed with us for almost a week, long after we had lost the current itself.

The weather features changed dramatically as we sailed into the Indian Ocean. Instead of the large deep lows along 47°S dominating the conditions we started getting large intense highs at 40°S with small tropical depressions above them at 20°S and the deep Southern Ocean lows down at 60°S. Interestingly, this left the actual weather conditions much the same – light air as the highs passed over and strong wind close reaching where the lows created crush zones at the edges of the highs.

The most lasting image from the passage will be the majestic Wandering albatrosses soaring over our wake, wingtips just touching the crest of a wave as they arced up and over and into the trough behind. After hatching, these magnificent birds with up to twelve foot wingspans take to the sea, riding the westerly winds, often not returning to land until they breed at seven or eight years of age. We saw many first and second year birds, all brown except for a white mask on their faces, as we sailed near the islands where they were born – South Georgia, Marion, Crozet, Kergulen. Occasionally we saw an aged veteran, almost all white except for a small amount of brown on the wingtips, appearing slightly hunchbacked as it soared and glided without moving a wing for as long as we would sit and watch them. These were likely as old or older than us, and would have spent the vast majority of their lives at sea.

The Wandering Albatrosses turned out to be the kings of an incredible array of birdlife, especially south of 45°S, more than we've ever seen in one place at sea except near the Galapagos. Most mornings the sun came up to reveal dozens of birds circling and gliding around us. These included Sooty Albatrosses, Wandering Albatrosses, Giant Petrels and Black-browed Albatrosses – the big B52s gliding gracefully around the skies. Dozens of smaller, faster birds including Blue Petrels and Whale Prions and another small Petrel we were never able to identify flashed from wave to wave like fighter jets. Just along the surface the tiny Wilson's Storm Petrels literally skipped from wave to wave on long, dark legs and the occasional Diving Petrel flitted right *through* the waves. Most of these visitors only stayed until noon or so, and in the afternoon only a lone Wandering Albatross would cross our wake in long, sweeping glides.

We made landfall in Perth two months after leaving Puerto Williams, having sailed halfway around the globe in perhaps the “bluest” of blue water passages. All the colors and bustle of Fremantle seem quite frantic after living in our own world with just the ocean, whales and sea birds for so long. This passage was a major project to bite off, especially right on the back of our double traverse of Chile. We were a bit weary the last two weeks, but feel a great sense of accomplishment at having really immersed ourselves in blue water, and at getting in safely - with Beth and I still best friends and Hawk in excellent shape.