



‘What I learned deploying my series drogue in a gale’

Steve Brown found his series drogue a big asset when riding out foul weather in one of the world’s most inhospitable sailing grounds



Despite a tumultuous sea, the drogue slowed the boat to the 1-2 knots promised by the designers

Some sailors can go a lifetime without ever needing to resort to heavy weather tactics; others simply end up in the wrong place at the wrong time and have to find a way of riding out a storm. Both of my previous boats had been pretty good at riding out bad weather when hove-to. I had read and reread Adlard Coles’ book on heavy weather tactics and concluded that I could jury rig a drogue if required. Some 50,000 miles later, this had still not been necessary but my plans for my boat *Novara* would take us to the higher latitudes both north and south. *Novara* is a 60ft aero-rigged Bestevaer schooner, a completely different kettle of fish to my previous cutter rigs.

I experimented with possible methods to heave-to but with little success, and so I began to research the alternative methods to ride out bad weather in safety and relative comfort. There was already a parachute drogue on board

when I bought *Novara*, but not only was this considered too small, I was concerned about launching the parachute in heavy weather and then riding bow-to the breaking waves and big seas.

Further research led me to the option of trailing a drogue from the stern and in particular, the work of Don Jordan and his Jordan Series Drogue (JSD) design. His research, reasoning and the feedback from those that had used his JSD design in anger led me to purchase a purpose-built JSD from Ocean Brake in the UK in time for our two adventures in the Southern Ocean.

The drogue consists of a two-piece 25mm-thick bridle that connects to a three-segment (20mm, 16mm and 12mm) line to which the small plastic cones are attached by simply threading the tape through to outer braid. The drogues are made to order and the overall length and number of cones are determined by the length and weight of the boat.

The first of our Southern Ocean expeditions was to South Georgia and was likely to give us our stiffest

challenge with a continuous series of storms sweeping up from Cape Horn, threatening the five-day downwind passage and the far more serious upwind return. It would therefore be good seamanship to think through the best launch and retrieval techniques, set it up in advance for a quick launch and then hope that it did what the designer and manufacturer claimed it would.

We had set up the 24mm-thick bridle before we left Stanley in the Falkland Islands, clipping it in place with large zip ties. The launch bag for the main drogue was rolled up and tightly secured on the pilothouse and the chain used as the end weight was kept in its launch bag tied down on the side deck close to launch position.

The 775-mile outbound leg gave us a fast passage with 20-35-knot winds mostly aft of the beam, and we arrived in the secure harbour of Grytviken just ahead of a big storm that had the Chilean fishing boats running for cover amid 65-knot winds and 9m seas.

We spent the next five weeks exploring South Georgia, venturing around the southern tip and into Larsen Harbour, skiing on the glaciers and ice fields and marvelling at the wildlife. But it was then time to return to Stanley. We had been watching the weather for some days and saw little opportunity for a smooth passage back. Five days was spent sitting out a huge storm that at its peak, covered over 2,000 square miles of Southern Ocean, stretching from Cape Horn to the Falklands and across to South Georgia.

Having delayed our departure and missed our flights in the process, we were increasingly concerned to get a weather window for our return passage, but could only see a constant series of gale-force winds and the occasional storm passing across our return path to Stanley. The skippers that ply these waters for a living had told us of constant headwinds and motorsailing into big seas and



Steve Brown, owner and skipper of *Novara*



Novara is an aero-rigged schooner, originally built for scientific research



Each JSD is custom made, the length and number of pockets proportionate to the size and tonnage of the yacht



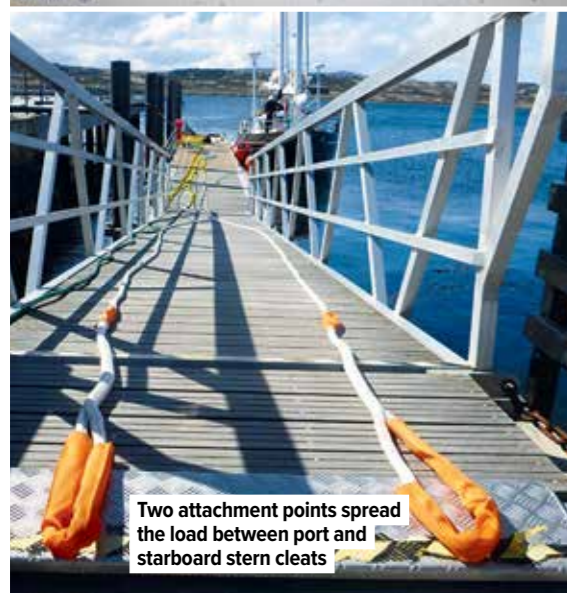
Many small but strong pockets spread the load



The crew turned away from their destination to run with the storm for 42 hours



The level of snatching is reduced by different parts of the drogue being in different parts of the wave



Two attachment points spread the load between port and starboard stern cleats

generally gave us little hope of finding a six to seven-day favourable weather window. Indeed, all spoke of this being consistently more arduous than crossing the Drake Passage to Antarctica and having done that in 2007, this did not fill me with confidence!

As it was, we left as soon as the huge storm had passed over the island, knowing that seas would still be high but both wind and waves would ease as we motorsailed north-west towards Stanley. The wind and waves did ease, but only for a short time and with the need to conserve fuel, we tacked back and forth across our rhumb line making little progress towards our destination.

The twice-daily grib files offered no respite and by the fourth day they were showing a large weather system developing in the Andes that would sweep across the Falkland Islands and move slowly across our path. Seeing no way through or around this system, we enlisted the help of a weather router who gave us a better idea of the big picture but no miracle solution.

By day six, we knew that we would encounter winds of 45 knots with gusts far in excess, and breaking seas of 7m or more. Time for some heavy weather tactics. So with winds and seas building, we deployed the drogue before things got too hectic and settled down to sit out the storm. The drogue is designed to turn the stern into wind and waves and slow the boat down to 1.5-2 knots, lifting and falling to the following seas. It works!

The storm proved to be very slow moving with winds in excess of 45 knots, and so we ran off south-south-east and away from our destination for 42 hours. *Novara* rose and fell as each wave passed harmlessly beneath us. Occasionally, a big breaking wave would crash over the stern, flooding the cockpit and seeping in and around the pilothouse door, but the long JSD kept the stern to the wind and waves.

When the wind dropped to 25 knots and the seas eased, we retrieved the JSD, leading the lines forward and around a block before running them back to the

big powerful mainsheet winches. When inspecting the JSD on our return to Stanley, we found that one of the bridle legs had chafed 50% through due to an area of damage on the stern hawser. The first 10-12 of the cones had also suffered some damage as they were lifted clear of the wave train and flogged in the wind.

The bridle extension and all damaged cones were replaced by Ocean Brake free of charge.

LESSONS LEARNED

1 LAUNCH SAFELY

Storage and launch from a large sail bag would have been easier and safer than the pilothouse roof method we used.

2 GUARD AGAINST CHAFE

Although the JSD came with good anti-chafe material, the rough areas of damage on the stern hawser could have had serious consequences, so we used additional thick plastic tubing when we set the JSD up for our trip to Antarctica.

3 PLAN FOR RETRIEVAL

It would have been easier to run the drogue line directly to the winch for retrieval and avoid having to have crew forward on the side deck.

4 ENSURE IT FITS YOUR BOAT

To ensure that no cones brake clear of the first wave, the first section of the JSD was extended by 10m.

5 HAVE A PRACTICE LAUNCH

This would have highlighted any problems.

6 WATERSEAL HATCHES

We added a secondary seal to ensure a 100% watertight pilothouse door.



The cockpit flooded but the JSD kept the stern to the wind and waves