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FAMILY CONQUERS THE NORTH WEST PASSAGE – Read how they did it inside



AOL Keyword: PBO

Northwest Passage

A home-built boat, with no sponsorship or fanfare, has become the first British yacht to transit the infamous Northwest Passage from west to east. **Jake Kavanagh** discovers that simplicity is the key to success



Fog and reflections in Larson Sound, near Weld Harbour

Photos by Richard Woods



Entering Navy-Board Inlet near the eastern end of the Northwest Passage

The Northwest Passage is a hostile stretch of water. It consists of a complex system of waterways across the very top of the North American continent, linking the Pacific to the Atlantic. Because of its high latitude, the route is totally frozen for most of the year, but for a short time during the Arctic summer, the pack ice retreats just enough to open a navigable channel. But even then, there is no guarantee of success. The ice can suddenly move back again, entombing the unwary – or unlucky – until the following summer. Over the years, there have been many attempts to navigate this route, and so far only 20 yachts have ever completed it. Of those, more than half have needed the assistance of an icebreaker.

But one home-built yacht has defied the odds, and made the trip in just one season, with basic planning and remarkable self-sufficiency.

That boat was *Norwegian Blue*, and PBO were invited aboard to meet her unassuming crew, and hear how basic modifications and a simple lifestyle were the main factors in their success.

Norwegian Blue was home-built by Richard Woods over a period of four years, specifically to challenge the polar regions. She is made of steel to a design by Hywel Pryce, but apart from a tougher bottom of 6mm steel plate, a retractable centreboard and an aluminium doghouse, she is a fairly standard cruising boat. There is a double cabin forward, a main saloon, a galley, a nav station and a shower compartment with heads. Power comes from a 50hp Perkins Prima diesel, and she is rigged as a Bermudan cutter. The only unusual addition below is a large diesel heater in the saloon.

Norwegian Blue was the third boat built by Richard, all inspired by his fascination for polar exploration. His son, Andrew ('Woody'), and Andrew's partner Zoë, bought the boat as accommodation when they started their own surf school business in the Canaries.

But, after problems with their business partner, they sold up and sailed to Spitzbergen in Norway, which gave them a taste for the Arctic. From there, they moved the boat to the Shetlands, where Zoë worked as a postman and Andrew as a roofing contractor, to raise enough funds for a world cruise. 'It wasn't much fun in the Scottish winter, but it paid well,' said Zoë.

In August 2001, they departed for the Southern Hemisphere. From the Canaries, they crossed to the Caribbean and then Venezuela, the Panama Canal, Galapagos Islands, Easter and Pitcairn Islands before spending three months in French Polynesia. 'We were moving quite fast,' Zoë said. 'We made

THE TEAM

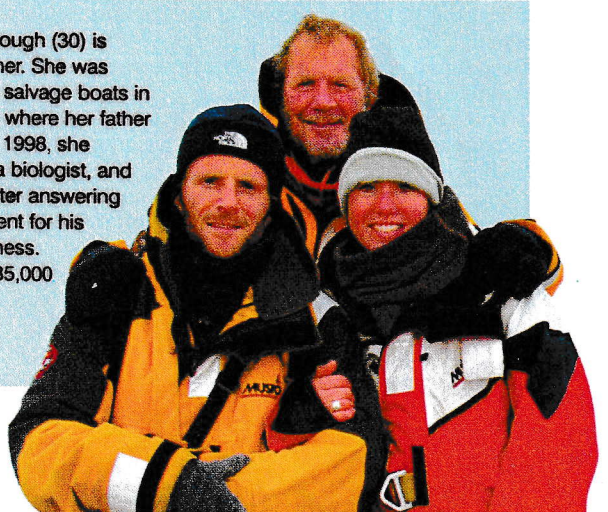
■ Richard Woods (60) is a retired GP, who has been sailing for many years, with the habit of 'serial boatbuilding'. He has built three boats with high latitudes in mind, and has taken part in two round-Britain races.

In 1990 he took part in a Southern Ocean and Antarctic voyage, which included Patagonia and the Antarctic

Peninsula, following in Shackleton's wake from Elephant Island to South Georgia. He lives in Islay, Scotland.

■ Richard's son, Andrew 'Woody' Woods (30) is a professional musician, and graduated as a photographer. His father's love of the sea has directly influenced him, and he has been cruising since 1998 on *Norwegian Blue*, logging some 45,000 miles.

■ Zoë Birchenough (30) is Andrew's partner. She was brought up on salvage boats in the North Sea, where her father was a diver. In 1998, she graduated as a biologist, and met Andrew after answering an advertisement for his Canaries business. She now has 35,000 miles of world cruising in her logbook.





money along the way by chartering the boat, as work ashore was almost non-existent.'

To keep costs low, the pair lived as simply as possible. 'We had no freezer, no fridge, and no water-maker,' Zoë said. 'Apart from the electronics, there was nothing on board that we couldn't fix ourselves. All around us, big-budget yachts were being held up waiting for spares and expertise, but we just carried on.'

Fourteen months after leaving the UK, they arrived in New Zealand, where shore-based work was available – Zoë became a childminder and Andrew worked as a roadie for a pop group. With a steady income, they could treat *Norwegian Blue* to a complete overhaul, including shot-blasting her hull.

Northwards again

'It had been a great cruise – lots of swimming, surfing and parties, in company with a community of some 200 other yachts – but something was missing,' Woody explained. 'We needed to push some frontiers and get off the beaten track. It may sound strange, but you can overdose on beautiful islands.'

In a phone call home to Richard, the topic of an attempt at the Northwest Passage was mentioned. It was the 100th anniversary of the first successful attempt, by Roald Amundsen in his 47-ton sloop *Gjoa*. It had taken Amundsen three years to complete the journey.

'Dad heard my idea, and promptly said "don't be ridiculous,"' Woody said. 'Twenty-four hours later he had ordered all the charts.'

The next episode was remarkable. 'To have any chance of making the brief weather window for the Northwest Passage, we had to beat the cyclone season in the Southern Hemisphere,' said Woody. 'Basically, we had to set sail from New Zealand in early May, and arrive in Alaska by July. That meant over 6,000 miles in two months.'



Pushing small icebergs out of the way with a boathook

'We took over 1,500 tins of just about everything, except meat and fish'

COMMS

■ Apart from fixed and portable VHF radios, *Norwegian Blue* had a single sideband radio, a second-hand Iridium satellite phone, a Factor modem for emails, a computer for charting faxes and Navtex, and a 406MHz EPIRB and 121.5MHz personal locator beacon.

Norwegian Blue was stocked in record time. Zoë had bought an old car, and used it to ferry tons of provisions to the boat. 'We're both vegetarians, so we don't eat anything that once had a mother,' Zoë said. 'We had lots of pasta and rice, and over 1,500 tins of just about everything, except meat and fish. Everything was budget stuff. We had no booze – out of economy, not choice – and of course we don't fish. We are good at rationing water, but found we had

ON BOARD

Keeping warm

■ All the crew had Musto wet-weather gear, a mixture of new and second-hand. Richard and Woody invested in proper Arctic boots, but Zoë accepted a pair of boots from a well-wisher. 'They weren't up to scratch,' she said, 'and I'm still suffering the effects of frostbitten toes. Always invest in proper gear for your feet.'

Fleeces, woolly hats and scarves, fur-lined gloves (artificial fur, of course) completed the gear, along with ski-goggles and dark glasses for the glare.

Woody had bought some cheap second-hand immersion suits in New Zealand, but when the

crew tried them they found they all leaked, and had poor insulation. The immersion suits donated by Eric Brossier when both boats were stranded in the ice, were the sort issued to North Sea drill workers, and were highly effective.

A single Reflex diesel burner, which consumed 0.18 litres an hour at its most economical setting, heated the boat.

Temperatures rarely dipped below -5°C, except in strong winds, so the heater kept the boat almost too warm. It was rarely used under way, as a draught from the sails had an adverse effect on the chimney's efficiency.

always been able to top up from rain on passage. We knew that everything was going to be very expensive in Alaska, so we bought as much as we could in New Zealand. The engine had a 400-litre fuel tank, but another 30 drums of 20 litres apiece (old plastic beer kegs) were stowed in the lazarette and on deck. 'As diesel also fuelled our heater, we had to pre-empt being trapped in the ice all winter,' Woody said.

Loaded up, the couple left Keri Keri in northern New Zealand on 4 May, to sail non-stop to the Aleutian Islands, off Western Alaska. They outran the cyclones, and simply kept going, week after week, using the engine to propel them through the Doldrums. Pushing hard, their best 24-hour run was around 165 miles.

Meanwhile, they continued to plan. Using the HF radio email system 'sail-mail' they kept in touch with Richard, who had flown out to the Aleutians to meet them, and was busy making preparations. Realising that they could become trapped in the ice, he built a sled from driftwood and Teflon offcuts from a local factory – it would be their only form of transport to safety if the boat became trapped.

Norwegian Blue arrived in Dutch Harbour, Alaska, 47 days after leaving New Zealand, three weeks ahead of schedule.

'It's a good job we had provisioned elsewhere,' Zoë said. 'We refuelled at Alaskan prices, surprisingly cheap at a dollar a litre, but I found myself paying \$110 dollars for two 20kg sacks of fresh vegetables – onions and potatoes – and that was with a 10% discount for cash!'

Into the ice

The Canadian Coastguards don't encourage yachts to transit the Northwest Passage, and need convincing that both the boats and their crews are



The team borrowed immersion suits from the marooned French yacht, *Vagabond*

POWER SUPPLY

■ Supplementing the engine alternator was a Clarke 4-stroke 1,000 Watt portable generator, and an Air Marine 403 wind turbine. This fed three 100Ah batteries.

fully prepared. 'Sending large icebreakers to assist stranded yachts is very expensive,' said Zoë. To help them, they had a charting fax, which picks up accurate weather and ice forecasts. This was to prove invaluable en route. They were also in radio contact with seven other yachts attempting to make the passage, including British adventurer David Scott-Cowper in his motorboat *Polar Bound*.

By early July, the ice had retreated enough for an attempt to be made, and they left Dutch Harbour on the 7th for Point Barrow – 1,223 miles – which took them three weeks. It was at this point that the lifting keel came into its own.

Because of her shallow draught, *Norwegian Blue* was able to hug the shoreline and keep out of the worst of the ice. Progress was initially promising, but heavy ice was encountered from Point Barrow to Weld Harbour, a distance of 1,635 miles.

'If our path was blocked by pack ice, I would go aloft in the bosun's chair to find a way through it,' said Woody. 'But it can be very disorientating at those latitudes. There is no land to use as a reference point, and the compass is spinning all the time. More often than not, we found we had recrossed our track and ended up back where we started. It was very frustrating.'

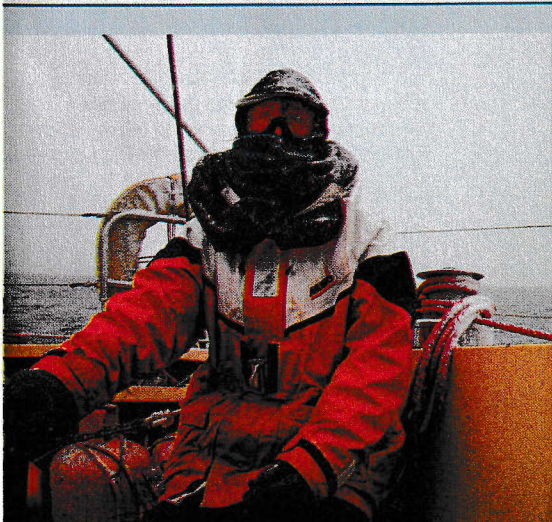
As conditions deteriorated, the crew began to worry about the rest of the trip, and the very real likelihood of being trapped in the ice for the Arctic winter. They rationed use of the heater in case the fuel was needed. Taking shelter in Weld Harbour, their worst fears were realised and they found themselves hemmed in by the pack ice. Although a safe anchorage, the situation was far from ideal.

With time running out, and temperatures around freezing, it was imperative that they took the first available opportunity to break out. Another yacht, the much-publicised *Vagabond* skippered by French explorer Eric Brossier, was also trapped nearby. They kept in contact over the radio and made excursions over the ice to meet each other. □

Food and water

■ The vegetarian diet was simple and quite easy to cater for. The staples were pasta and rice, bought in bulk, along with 35kg of flour. Potable water was stored in three main water tanks, which held a total of 350 litres. These were supplemented by an emergency supply of three 20-litre containers, and every opportunity was taken to catch rain on passage. The mainsail could be reefed to form a gutter, which channelled rainwater into buckets, and the scuppers could also be stopped to divert run-off straight into the tank-fillers. The staysail could be manipulated into a hammock-style bath.

Norwegian Blue is usually a dry ship, but Zoë did admit to shipping 20 litres of 'poisonous' Jamaican Rum at \$1 a bottle.



Thick gloves, woolly scarves and ski-goggles supplemented the standard foul weather gear

To keep the heat inside, a pair of overlapping blankets was hung over the companionway, and a 40-year-old Singer sewing machine (£1.50 from a car-boot sale) was used to sew a canvas lining onto the back of them. This allowed the washboards to be removed, and made access to and from the cabin easy without allowing the heat to escape.

▣ Brossier lent them some state-of-the-art immersion suits; the camaraderie of the sea seems even stronger when the water is frozen. After four days, however, *Vagabond* punched through and joined *Norwegian Blue* in the anchorage.

'One morning, we awoke to find that an offshore wind had cleared the ice from the shoreline,' Woody said. 'We had to move quickly.' Along with *Vagabond*, they sailed north, into the ice pack. The wind picked up to 50 knots, giving a chill factor of -40°C, and the crew had to navigate the boat through a minefield of growlers – loose chunks of ice the size of cars. 'It was a nightmare – there was no fetch, but we had to avoid every piece of ice. If we didn't, they would hit the hull with a resounding crash, and the noise was horrific,' Woody said. 'The headlight on the pulpit helped us spot them coming, and we avoided most of them. It was a terrifying ride, but at least we were free to continue to Bellot Strait.'

It took another week to get to Lancaster Sound, again with the constant danger of entrapment, and it wasn't until reaching Bylot Inlet that they finally became free of the threat of pack ice.


Norwegian Blue had become the first British yacht to transit the Northwest Passage from west to east, and the first to do so – in either direction – in one season.

Homeward bound

On arriving at Pond Inlet, it was time to say an emotional goodbye to Richard, who flew back to the UK. Their next passage was to Greenland's capital, Nuuk, a large port on the west coast, via a route which would take them through more icebergs and growlers. They stayed in Nuuk while the remnants of a storm passed, and on 27 September left for the UK. *Vagabond* was also bound for Europe, and the two boats stayed in touch by radio. It was a roller-coaster ride across the Atlantic – driven by a steady 30-knot wind, which gave them speeds of 6 knots under genoa alone – but they arrived at St Mary's in the Isles of Scilly on 9 October, after a journey of 1,774 miles.

Luck, it appears, favours the brave! During the whole voyage from New Zealand to the UK, the weather had been kind, although the ice recorded during the summer of 2003 was the worst for several years. Two other boats, which were only hours behind them, were quickly trapped. They were eventually released by a Canadian icebreaker, and are now wintering in Cambridge Bay. The rough weather had broken the ice just long enough for *Norwegian Blue* to make her escape.

'It was the most stressful time of my life,' Zoë admits. 'We had absolutely no idea if we would ever reach the end of our journey. We didn't want to spend eight months in near-total darkness and sub-zero temperatures. But I'm glad I did it. It was an awesome adventure. Seeing polar bears in the wild, and meeting the native Inuit people, are experiences it would be hard to top.'

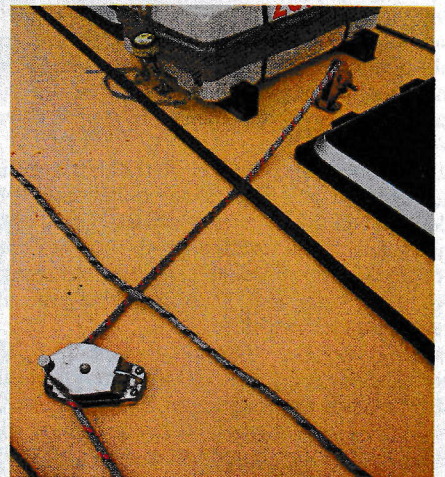
Both Zoë and Woody are living aboard *Norwegian Blue* in Penzance as they look for full-time jobs, preferably in the marine industry. Meanwhile, some very sophisticated boats – including Scott-Cowper's *Polar Bound*, will be spending the winter trapped in the ice thousands of miles away. 

▣ Find more information about the Woods' adventure on their website, www.norwegianblue.co.uk

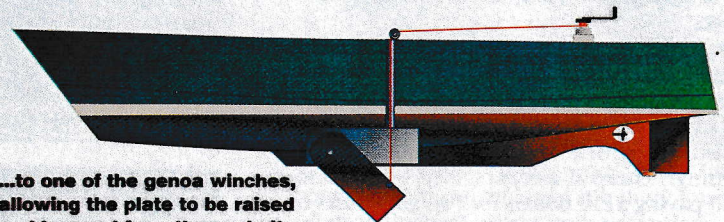
EQUIPPING FOR THE ICE



The rope for the retractable centreplate rises to the deck via a tube in the saloon. The tube has a removable rubber section for easy disassembly



The rope emerges onto the deck, where it is routed to a pulley, and from there...



...to one of the genoa winches, allowing the plate to be raised and lowered from the cockpit



The companionway is covered by an aluminium doghouse. Note the two hatches either side to vent the steel hull in hot weather



A quartz-halogen spotlight mounted on the pulpit was invaluable for spotting growlers in poor visibility



Lean on me. *Norwegian Blue* on a beach near the Panama Canal. You can see her multi-chine hull with the protruding keel box

SPECIFICATION

Designer:	Hywel Pryce
Built:	1995
Hull:	6mm steel
Superstructure:	4mm steel
LOA:	12.89m (42ft 4in)
Beam:	3.4m (11ft 2in)
Draught plate up:	1.2m (3ft 11in)
plate down:	2.2m (7ft 3in)
Registered tonnage:	17.8 tons

DOCUMENTS

▣ The most difficult part of the trip was obtaining a US visa post-September 11. The US authorities required evidence of solvency, the ship's registration document, a letter of intent about the passage, and specially formatted passport photos. All this had to be done from New Zealand prior to departure. It was all worth it, as they received a very useful multiple entry visa.