Unleashed

Conceived for passage racing, Brindabella began life with a series of short-course regattas. She's stretching out at last. Bob Ross reports

GEORGE SNOW initially commissioned the design of *Brindabella* from Bruce Farr & Associates as a passage racer as those were the types of races he enjoyed most. Then somehow, he got side-tracked into a sequence of regattas, admittedly with some long-race components but with a lot of round-the-buoys racing: Corum China Sea series, Kenwood Cup in Hawaii, Asia Pacific championship, XXXX/Ansett Hamilton Island Race Week.

In August, after a keel modification designed by Scott Jutson, intended to find a little more downwind speed, *Brindabella* at last set out on a sequence of the passage races the boat, as well as George, should enjoy most: Jupiters Sydney to the Gold Coast, Sydney-Noumea, Gosford-Lord Howe and Sydney-Hobart.

The handsome Sydney-based 65-footer did not enjoy the best of luck in her early racing last year. She languished in calms in one of the slowest Hong Kong-Manila China Sea races during her first regatta then broke her mast in a short race of the Kenwood Cup series when a piece of rod rigging failed.

But the boat and her owner have earned affection, respect and loyalty along the way from her crew. "I would never leave that boat because I enjoy sailing with George so much," one of regulars, who has sailed on many other well-known yachts, confided over a beer in the Middle Harbour Yacht Club late one winter's night.

The same spirit had been fairly obvious to me when I was aboard for a short race of Hamilton Island Race Week. George Snow is an owner who starts his own boat and is one of its main helmsman. He steered all the way in that race and did a competent job. "A lot of owners with big yachts look on the boat as a prestige toy and don't sail on it. George is not like that," says *Brindabella's* sailing master Simon Flitcroft. "And the boat does not race without him on board."

OPPOSITE: At the start of the NorTel Sydney-Hobart race. Brindabella went on to win the maxi division on corrected time (Ian Mainsbridge picture).

George Snow became seriously involved in the longer races with his previous yacht, the Davidson 52 *Doctor Who*, which could be classified as an ultra light displacement boat. She scored the fastest corrected time in the Gosford-Lord Howe race of 1988 and won the Brisbane-Noumea race. Believing there was unrealised potential in the ULDB concept, particularly in long-distance passage racing, he asked the Farr team to design him a bigger one.

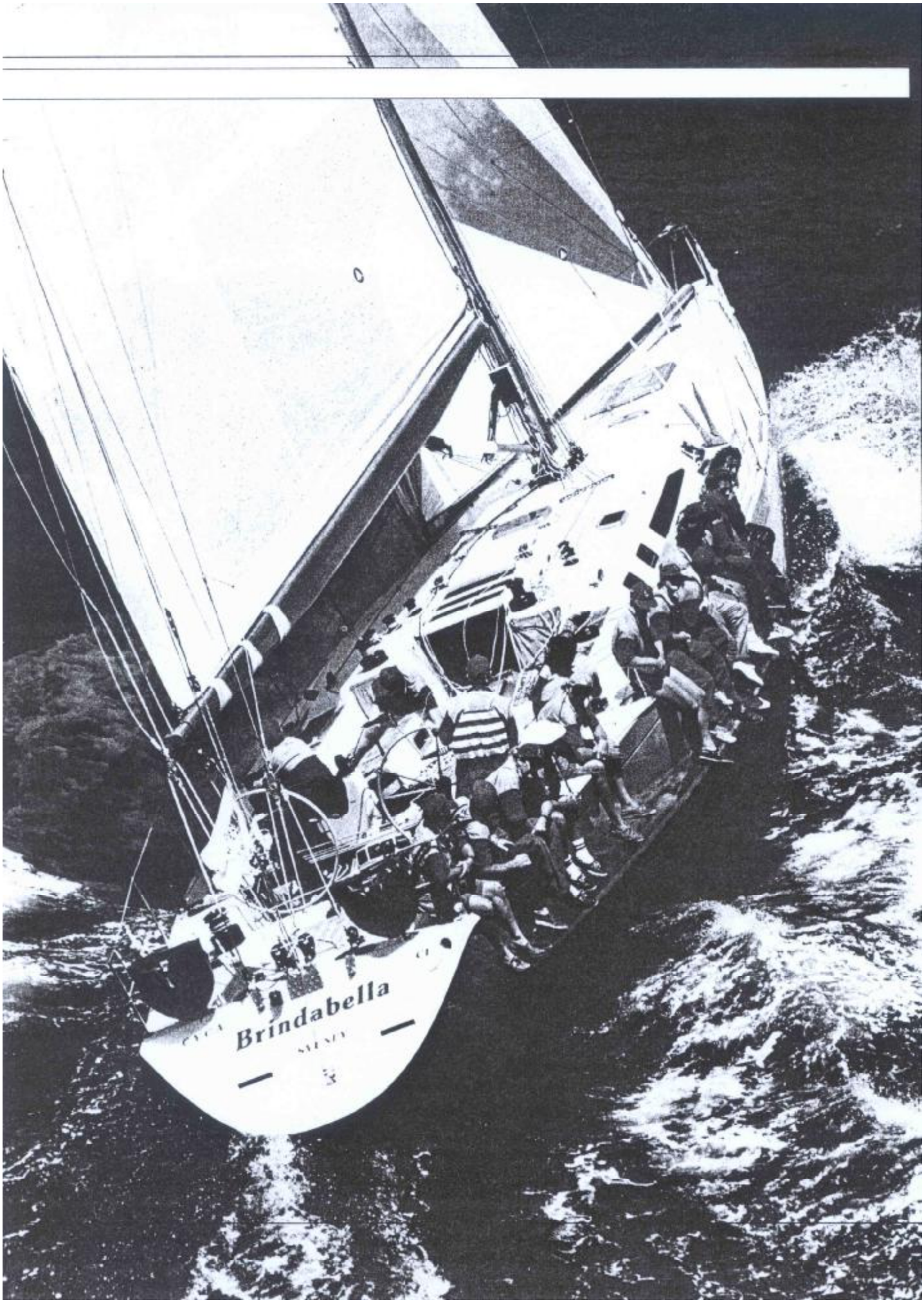
The brief was to design a boat approximately 65ft overall, with good sailing performance and fun for the price, not too distorted by the International Offshore Rule and capable of racing successfully under the IMS rule.

Farr says the design was a development of the ULDB concept to feature better all-round performance characteristics. It had a fractional rig, was strong and well balanced, had a deep bulb keel for high stability and a deck arrangement to suit a crew of 14 or more.

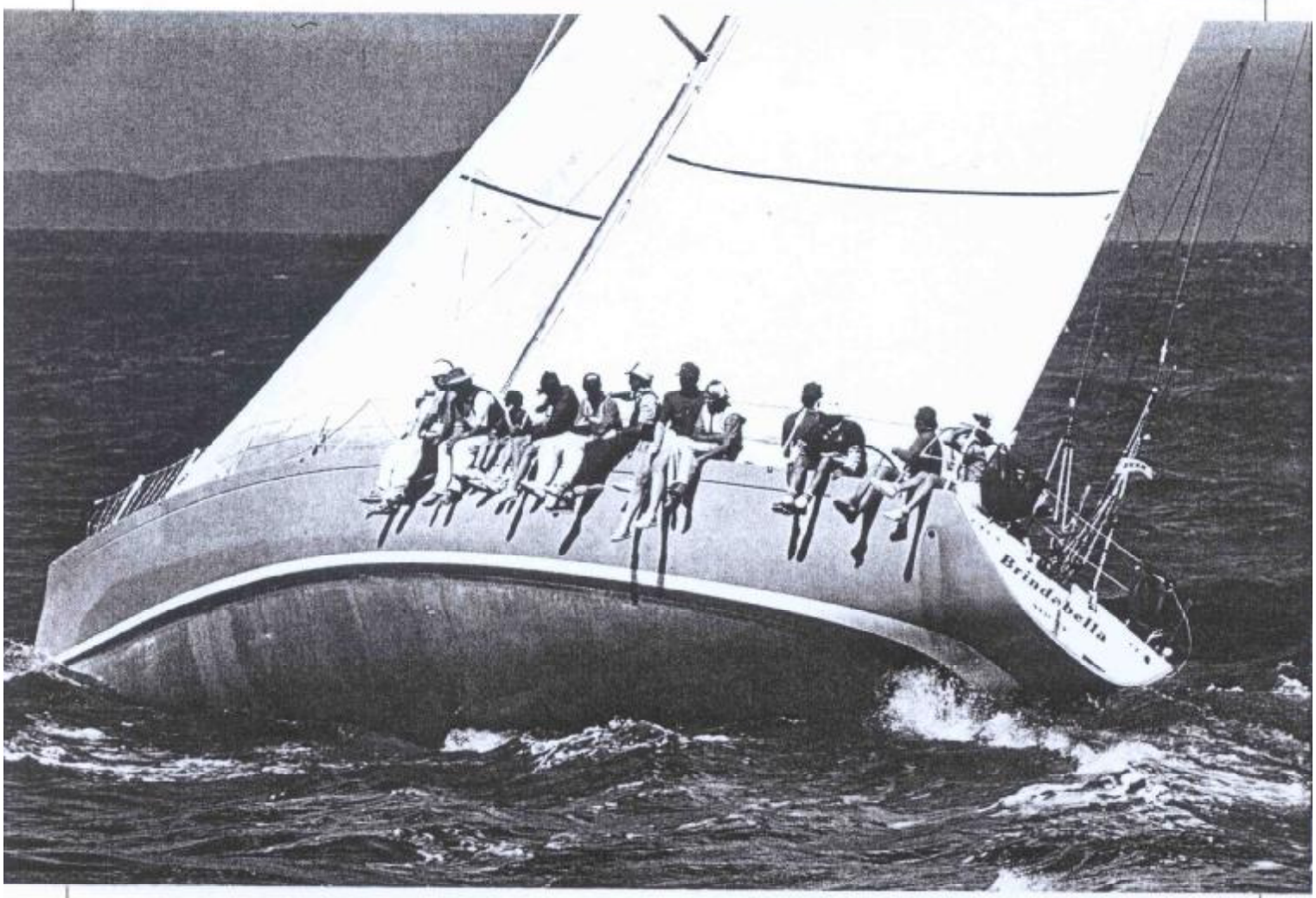
"With more beam and displacement for her size than the typical Californian ULDB 'sleds', the design offers sufficient ballast and form stability to be a significantly better boat beating and power reaching relative to her IOR rating of 62.3ft," Farr said.

"*Brindabella* should be very competitive with

 September


Brindabella

BOAT PROFILE: BRINDABELLA



the sleds downwind due to IOR penalties for very light displacement which rob them of sail area. The increase in displacement of this design allows a significant increase in sail area resulting in a comparatively higher sail area to wetted surface area ratio. This counteracts the higher wave drag caused by the greater displacement at high speeds.

"The project budget excluded flippant use of exotic materials in the construction. The brief demanded a reliable, robust structure suitable for ocean racing and cruising off the Australian coast with a sensible compromise between cost and weight-saving measures."

Peter and Sari Ulrich of Boatspeed Performance Sailcraft, West Gosford, NSW, built the yacht with structures developed to utilise unidirectional S-glass laminates over PVC foam cores. Internal structures were a mix of foam and timber bulkheads reinforced with S-glass laminates. An aluminium sub frame supports the keel to provide reliable resistance to grounding and broaching.

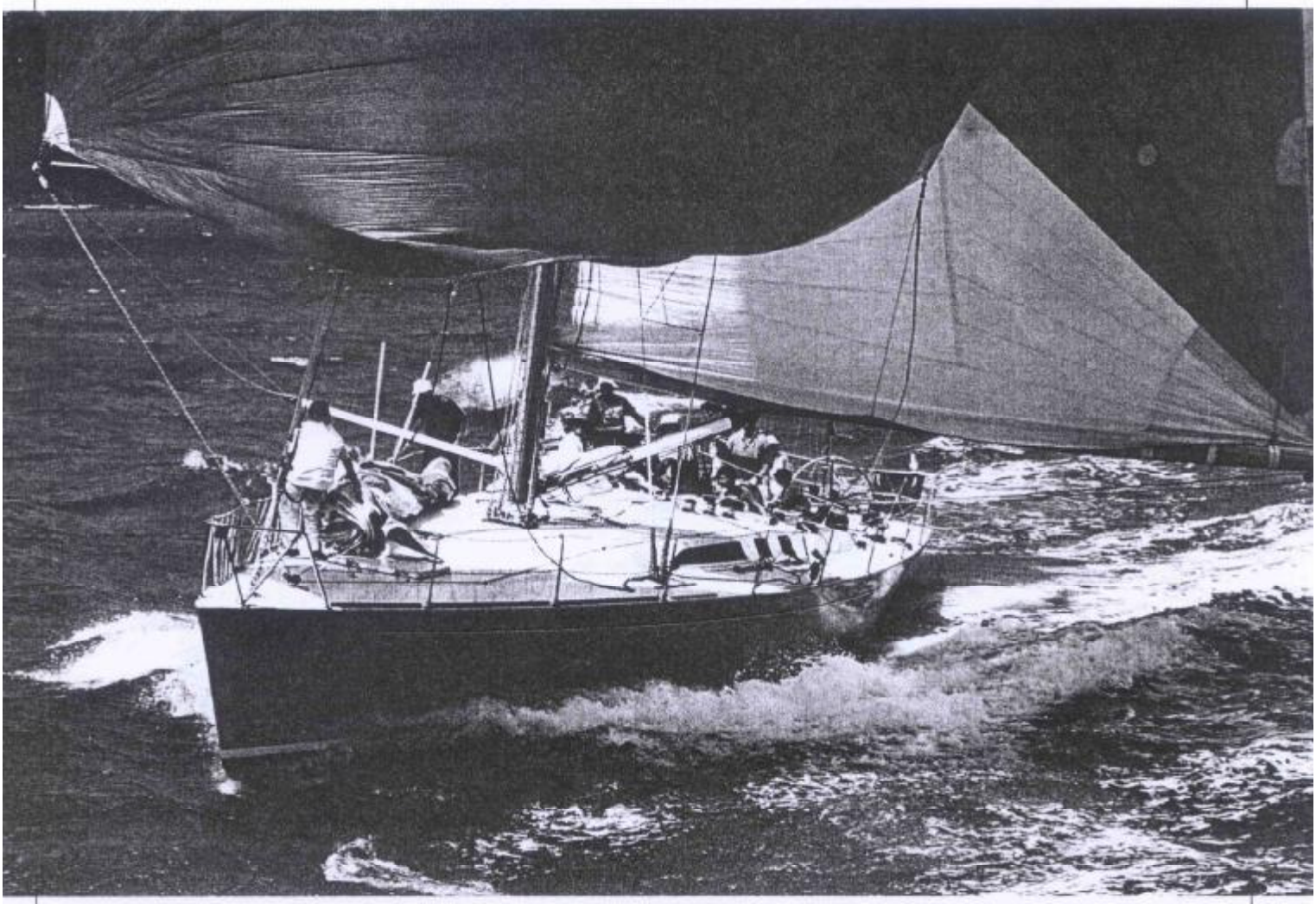
Flitcroft with Neil Kearney, a former Qantas airplane fitter who sails on the boat, designed and fabricated the steering pedestals, quadrant, coffee grinder arrangement. After the mast failure in Hawaii due, it is claimed, to a faulty piece of rod rigging, Flitcroft designed the present mast which Alspar constructed.

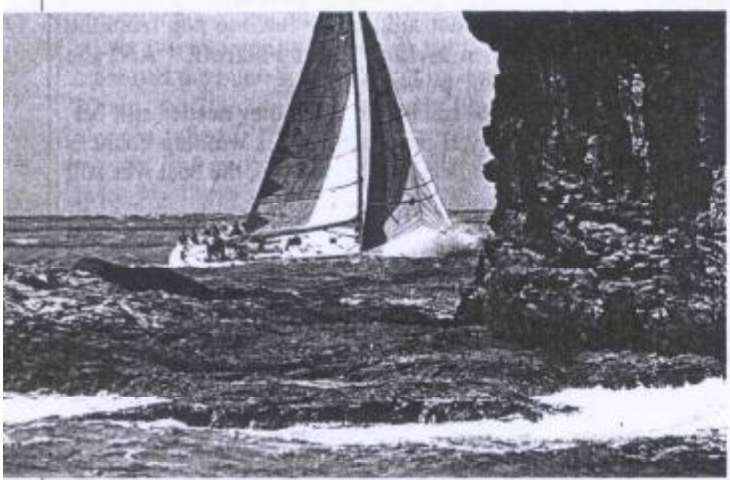


TOP: The long narrow shape heels a long way before it picks up stability, but Brindabella is fast upwind. ABOVE: "Gazza" the trimmer at work in Hamilton Island Race Week (Neil Patchett pictures).

Through the Australian summer of 1989-90, *Brindabella* was reliable, with no gear failures, and began to post some good results. In the Nor-Tel Sydney-Hobart race, she was fourth to finish behind the later-displaced *Rothmans*, *Ragamuffin*

BOAT PROFILE: BRINDABELLA





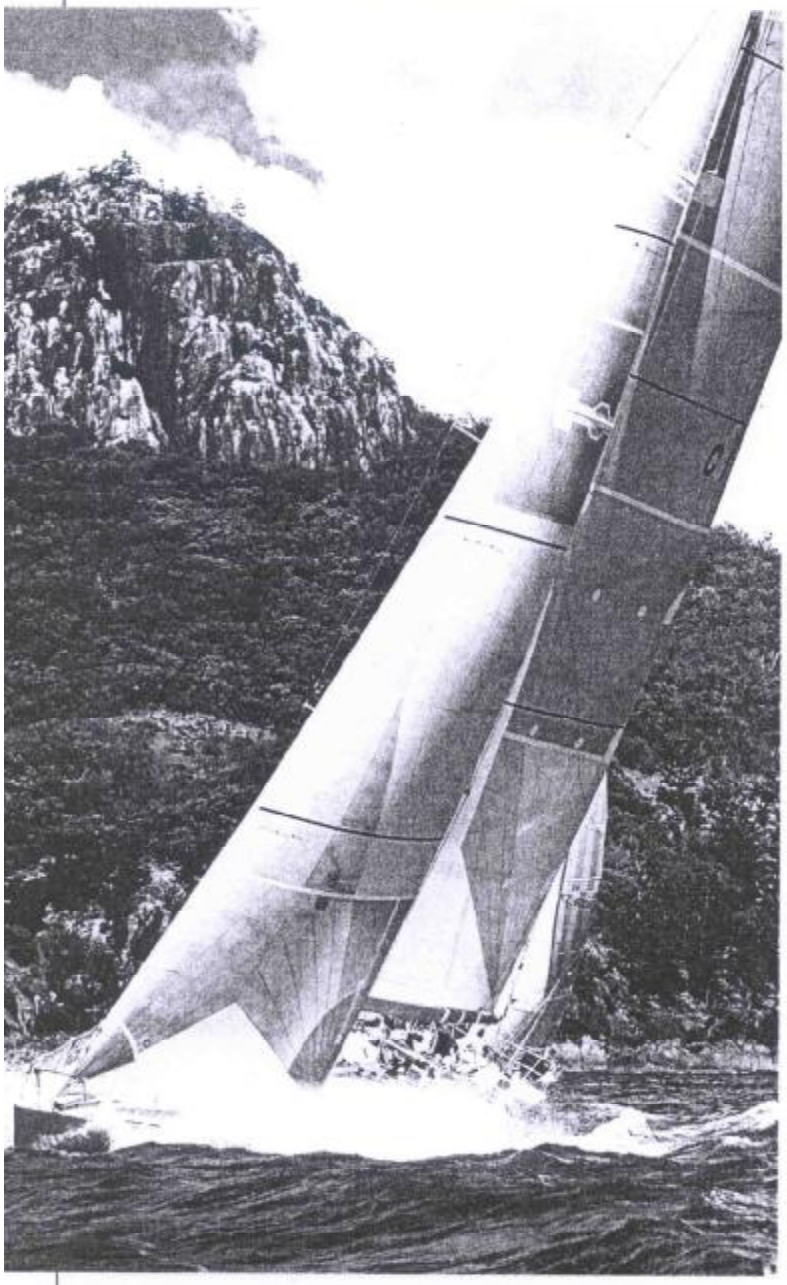
and *Condor*, eighth overall on IOR corrected time, winner of the maxi division and third in Class III IMS. She was first to finish in all six races of Hamilton Island Race Week (expected as she was the biggest boat) finished fifth overall on IMS corrected time (there was no IOR division) and won one race on handicap.

I sailed on the boat on the second last race at Hamilton Island, a 30-miler in which we finished fifth. There were a few others in the crew of 14 or so who had not sailed on the boat before. *Brindabella* is a big boat. Mistakes on big boats tend to have serious consequences. The wind was gusting well over 20 knots; the seas were short and steep.

TOP: The spinnaker reach in from Baynham Island was the bonus for a bumpy ride out in race five of the Hamilton Island Race Week series.
ABOVE: This was the hardest and wettest bit in race five (Patchett).

However the regulars on the boat, led by Flitcroft, were a calm and efficient lot and had us lined up for the start with the right rig (reefed mainsail and number three headsail) and we went on to sail a very pleasant race in which there were no wipeouts or major dramas and barely a voice raised.

Tactician Rod Dalgleish's strategy was to get us to the right early from the Catseye Beach start, along the shores of Hamilton Island and Perseverance and Young islands, for tide and wind shift considerations. Off the starting line the J44 *Phoenix*, nearer the pin, crossed us heading that way and up the shore through a series of short tacks was more in phase with the shifts than we were. The short tacking did not suit *Brindabella*, which was taking more time to wind up to maximum speed. We were ahead of *Starlight* at the start but



Brindabella likes to go to small headsails early (Patchett).

for a while had trouble staying in front of her, much less opening the distances we needed to beat her on corrected them.

Then *Wild Thing*, the Inglis 47 sailed by Grant Wharington and his crew of "wild things" from Melbourne, shattered the whole "hard right" theory by coming from the left and crossing all of us by good distance. Fortunately for us, *Wild Thing* was in a different division, Performance Handicap. She took some passing — sailing just as high if not higher than us on the tough beat out to Baynham Island. Maybe having what looked like the Essendon football team on the rail helped. But George on the wheel was complaining that he could not get the target upwind speeds of nine knots plus out of the boat that he had been able to achieve in the previous races.

Wild Thing then did a marvellous job of covering *Starlight Express* which helped us open up a respectable lead at last. Rod, with excellent local knowledge advice from navigator Ken, then placed the boat off the corner of Maher Island precisely to get the best of a two knot push to windward from the tide and a lift as well, for another big gain.

After the tough, wet and bumpy outward beat, the ride from Baynham under spinnaker back to the Catseye Beach pontoon was a holiday bonus, the boat reaching speeds of up to 14 knots and perfectly under control.

The sight of *Starlight Express* diminishing in size behind us told us we were going away but by not enough as it turned out to win the race after a final short triangle off Catseye. Still the ride, with a final successful spinnaker carry on the shy reach to the finish a final buzz on a beautiful Whitsunday Day, made winning less important, even to George. When Chris Packer and his crew rafted *Starlight Express* alongside us in the harbour to share a few beers, experiences and a look around each others' boats, the day ended as all good yacht racing days should.

The Hamilton Island series set Snow and his crew thinking about future directions for the boat in both performance and rating rules. To that time, they had not really explored or exploited *Brindabella's* IMS potential.

After Hawaii, on the advice of Farr, they had taken out 600kg of internal ballast. That improved upwind performance to the point where, says Snow, she could hold the One Tonners upwind on corrected time. Downwind performance improved too. "The boat suddenly wanted to pop from the waves when surfing," said Flitkroft, "And she was quicker power reaching."

But Snow and his team felt they needed still better downwind performance for winning chances on IOR handicap. And Snow felt the boat was still too heavy.

So after the Hamilton Island series he consulted the Sydney designer Scott Jutson who produced a keel modification for the boat and suggested removing more internal ballast. Flitcroft said: "The point that has been brought to our attention by Scott Jutson is that in a narrow-beamed boat, within reason the ballast is not as critical as it is on a wider boat that is generating a lot of hull-form stability. So we are taking out some more weight and that will affect the trim significantly so the residual ballast will be moved to compensate for the trim.

"Also with this keel modification, the boat is going to be shown to be slightly more tender on IOR. In Hamilton Island trim, we were rating 62.8. Scott has on his program worked out that we should come back to 62.3, which is what the boat was when it first went in the water except

that now we are going to be about 1000kg lighter. The rating went up because when the took out the 600kg, the bow trim rose too much.

"The limit of positive stability will remain the same; hopefully what we have created is a boat that will not have lost anything upwind but will power reach and run significantly better."

The new keel section is similar to the one that Jutson put onto Lou Abrahams' One Tonner *Ultimate Challenge* before her 1989 Sydney-Hobart race win. Where the Farr section had hollows towards the trailing edge, the Jutson section is fuller. Jutson believes that although the Farr foil is very quick to windward, at 8.5 to 9kts it starts to create drag through loss of laminar flow at the hollows. The fuller foil section should maintain laminar flow at the higher speed, which should be quicker running and also claims a higher stall angle, which is also good downwind, Flitcroft says.

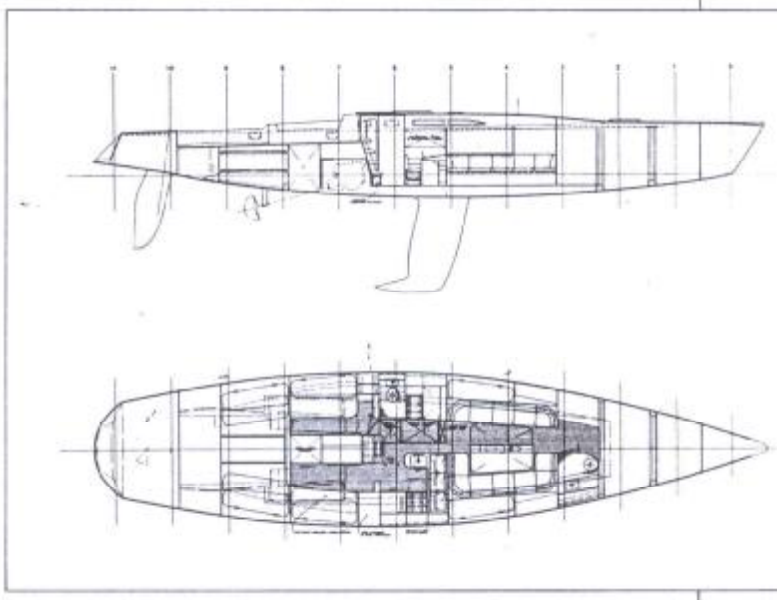
The bulb at the bottom of the keel has been reshaped into a "whale's tail" with the lead sliced off the bulb's sides also used in filling the trailing edge hollows as well as extending it aft in the "tail". The keel has maintained a similar profile and, because of the placement of the lead, the righting moment is exactly the same.

Fining the bulb down to the whale's tail, besides offering less frontal projected area resistance, makes the keel more efficient right to its tip. "The bulb offers nothing more than parasitic drag plus righting moment," Flitcroft said. "The whale tail concept is to give you foil shape down the entire length of the keel plus maintaining a respectable righting moment through a lot of lead down low."

A minor change has been made for IMS requirements: concerned that two of the hard-bottom bunks were too narrow to meet the rule, Snow's team had the bunk backs cut and moved outboard 20mm. At Hamilton Island, extra bladder tanks were installed. "In every other respect, we have always had more than the required fitout for IMS."

The choice of whether to go IMS or IOR might not be an option for too much longer. "The boat was launched with no real rating rule in mind at a time when IOR provided the major prestige racing in Australia and IMS was beginning to pick up momentum. Now IOR is almost dead in Australia and IMS has picked up momentum enormously," Flitcroft said.

"In Hamilton Island, despite the bitching that went on about a certain overseas boat, IMS was shown to be an incredibly fair rating rule. The top of the IMS fleet included a mixture of racer-cruisers like *Brindabella* and *Starlight Express* and cruiser-racers like *Rockstar*, the J44 *Phoenix* and *Never a Dull Moment*. Those boats all finished the series within 14 points and taking out the winner, *Starlight Express*, from second to sixth were within seven points."



Keel is extremely deep and still the same in profile after the modification. The interior layout meets IMS requirements.

For the new season, *Brindabella's* mainsheet system has been modified, to be more readily worked in round-the-buoys racing. Some ultra-light check-stays are being tried and they work, similar materials were to be tried for the runners. Rigger Joe Henderson, who also sails on the crew in the pit, is working on this project with a Spectra composite. "We are not yet sure of the stretch characteristics except that the method of production should massively reduce the stretch factor," Flitcroft said.

"Joe Henderson has spent an awful lot of time figuring out how to supply us with the lightest, most reliable, running rigging he could produce including genoa halyards that we know are the first of their type in the world. He could not get the stretch out of all-Spectra halyards and I was loth to go to Kevlar with wire tails. So we have Kevlar genoa halyards with Spectra tails and we are getting no wear on the sheaves.

BRINDABELLA

Length overall *19.70m*
Waterline *16.40m*
Beam *4.54m*
Draft *3.41m*
Displacement *15,756kg**
Ballast *9,638kg**
Mainsail ..... *116.60sq m*
150% genoa ..... *108.73sq m*
Spinnaker ..... *200.73sq m*
IOR rating *62.30ft*
Rig dimensions: *I, 21.78m; J, 6.40m; P, 23.65m; E, 8.50m.*
Designer: *Bruce Farr & Associates, PO Box 4964, Annapolis, MD 21403-0964, USA.*
Builder: *Boatspeed Performance Sailcraft, 11 Neill Road, West Gosford, 2250.*
***Designer's original figures.**