

Auckland designer Greg Elliott likes fast passage-makers, and his latest boat takes the concept a step further. Story and photos by Ivor Wilkins



Stability at speed is almost uncanny, as if the boat is on rails

# Why go slow?

Greg Elliott's attitude to rating rules is refreshingly straightforward. He hates 'em. He finds them stifling and reckons that most of the constrictions written into rules make boats go slower.

"Whenever you come up with a rating rule, just do the opposite and you're bound to be fast," he says.

Fast is what he wants to be — and his latest speed machine demonstrated exactly that when it topped 20 knots downwind on its first serious outing on a rain-lashed Waitemata Harbour. With the bow straining upwards under the pull of a gennaker and spray flying from the gunwales, the yacht tracked along dead straight, like a guided missile.

Elliott's well-known dislike for the IOR and IMS rules has made him something of a rebel with a cause. But he does not rail against the establishment, or fight for change. He simply operates outside of it — and has a lot of fun in the process. And over the years he has attracted a strong following, both in New Zealand and internationally. Increasingly, he is finding a market for

his cruising designs, because owners recognise in them the quality Elliott has always strived to achieve: fast passagemaking in offshore conditions.

His penchant for muscular yachts with aggressive plumb bows, narrow waterlines and powerful rigs has created a style that is quite distinct. You can usually tell an Elliott yacht at a glance.

Taking this style to the racing edge, he has produced some quite striking yachts, particularly his 50ft wing-masted schooner *Elliott Marine*, which set a new Round North Island record and narrowly missed line honours in the Melbourne-Osaka race.

His latest racer, *Kivi Coyote*, comes straight out of the same lineage. This is Elliott's own boat and it reflects his philosophy, which he sums up as follows: "It is all about drag reduction and weight reduction. Reduce drag and weight as much as possible, combine that with a reasonable amount of power in the rig and you are out of here. Simple as that."

Often simplicity is deceptive — a great deal of

thought and experience usually lie behind truly simple design. This is evident in Elliott's new boat, which utilises a great deal of research and development. In looks the yacht bears similarities to the solo round-the-world yacht racers, although the flare at the beam is slightly less exaggerated because the Elliott boat does not utilise water ballast.

The hull form is very similar to *Elliott Marine*, but marginally finer (the beam to length ratio is reduced) and somewhat flatter aft of the keel. Both of these characteristics are a result of the single rig configuration, compared with the schooner set-up on *Elliott Marine*.

The mast is a carbon fibre wing with a chord width of 450mm. The tube was manufactured by Southern Spars and then the finishing work was done by Greg's brother, Bruce. Apart from the wing structure itself, a distinctive feature is the wide swinging spreaders which allow the mast to rotate within the shrouds, which are necessarily slack with the boat at rest, but

take up the tension on the windward side when the rig is powered up.

"The mast can rotate to 90°," says Elliott, "but in practice 60° is as far as you ever want to go. Upwind, you pull that back to 6°. Anything more than that sets up too much drag."

Elliott has the benefit of three years' experience with the rotating rigs in *Elliott Marine*, plus extensive testing with a scale model in the Auckland University wind tunnel. "Our test results from the tunnel correlate very closely with what we know to be accurate from experience on the previous boat," he says.

The other aspect about the rig that is quite striking is how far back in the boat it is placed — more than halfway back from the bow, which suggests the keel is also well back. Elliott confirms this: "Putting the centre of effort further back promotes faster reaching



The designer at the bow of *Elliott Marine*, and (right) no-frills interior of *Kiwi Coyote*

and running," he says. "That is combined with a hull shape that is quite deeply veed, like a powerboat. The faster the boat goes, the more it lifts out of the water."

Out in front of the boat, a 2.5m bowsprit affirms that Elliott's belief in gennakers remains undimmed. He has worked very closely with North Sails on developing these and says, "if your boat is fast enough, it is a gennaker boat—it's as simple as that".

The bowsprit can articulate, to assist in sailing deeper angles. Some races do not allow moving bowsprits, so provision is made to lock it in place.

In keeping with the low drag philosophy, the hull is narrow at the waterline, with the knuckle of the bow lifting clear of the water at rest. And, in keeping with the lightweight philosophy, there is virtually nothing apart from the skin of the hull. With a displacement of six tonnes on a 45ft boat, there is no arguing with Elliott's statement that "this is unashamedly what I would call a racing boat".

## STOP PRESS

*Kiwi Coyote* was dismantled due to a rigging failure prior to the Pacific Cup start in San Francisco, losing the wing mast overboard. The crew were able to re-rig the boat with an aluminium spar and go ahead with the race to Kaneohe, Hawaii. Latest news was that the original rig had been dragged up by fishermen, but its state of repair was still unknown

By using more carbon fibre and higher performance materials all round, *Kiwi Coyote* is lighter relative to its length than *Elliott Marine*. But, Elliott is also a believer in strength and reliability, so he has sometimes compromised lightness for a bit more peace of

mind. For example, the outer skin of the hull is not carbon fibre but Kevlar, because Elliott prefers its impact resistance. Similarly, he has chosen a foam core, giving away about 7kg in total weight over the lightest possible core.

Down below, it is all wide open spaces with a bulkhead at the mast and another at the companionway. Four pipe berths on either side and a motorbike-type saddle at the nav station is all you get in creature comforts.

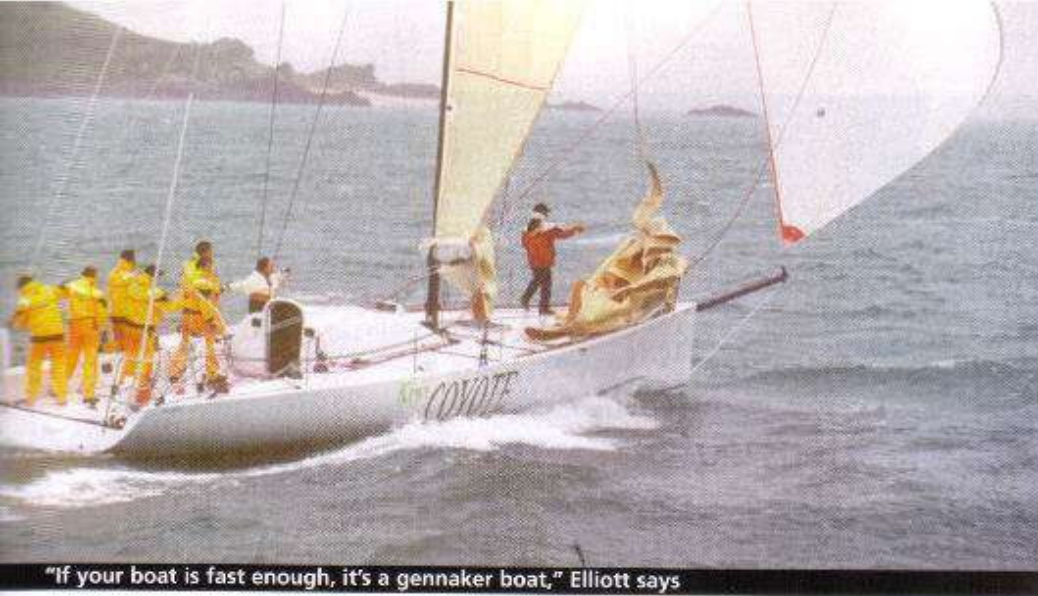
The nav station is situated just aft of the mast, with a large B&G screen set so that the helmsman can view it at night. The rotating mast introduces all kinds of wrinkles that have to be sorted out: for example, you can't have performance read-outs on the usual pod at the base of the mast, because half the time they would slide round the corner out of sight. So the read-outs are mounted in a fixed console just forward of a hatch above the nav station. That way the helmsman can see them, as can the navigator by peering up through the hatch.

Similarly, all the masthead instruments have to be calibrated to take account of the mast rotation – everyday stuff for offshore multihull sailors but novel for people more used to fixed rigs on monohulls.

The logical place for the nominal head would have been on the centreline, just ahead of the forward bulkhead. But that would have interfered with sail handling, so the head perches off to the starboard side of the forward cavity. Heaven help you if you've got to

Wing mast is placed more than halfway back from the bow





"If your boat is fast enough, it's a gennaker boat," Elliott says

go while the boat is beating or blast reaching in a sea-way on starboard tack — you'd be perched up on the high side with nothing but determination and a fear of your shipmates' fury to keep you from falling off.

Auxiliary power comes from a 30hp Yanmar diesel, which propels the boat at more than 8 kts — testament to its light weight and slippery shape. Under sail, the performance is even more impressive. Initial trials were in light conditions, about 8 kts of breeze, which had the boat approaching windspeed upwind and exceeding it down.

The second sail, in blustery conditions with regular squalls tracking across Auckland, confirmed that it

lights up in a breeze. With its powerful rig balanced by a deep fin and bulb keel and the narrow waterline, this boat is no slouch upwind — doing 8.2 kts at close angles in 22 kts of true wind and choppy conditions.

But it is reaching and running where *Kiwi Coyote* takes off, with the big sailplan lifting the bow and sending the rev counter into the red.

The stability at speed is almost uncanny, as if the boat is on rails. With the log hitting 20 kts, there was plenty of adrenalin, but not the slightest sense of panic or lack of

control.

Even though he knows talk is a dangerous thing, Elliott can't help himself: "It's a bullet," he says

As he gets older, his attitudes to yachting remain unchanged. Going fast is what this boat is all about. While convention would have him at least starting to ease back and consider sensible retirement options, Elliott has never had much time for convention.

"Retirement plans," he scoffs. "They're like rating rules. Do the opposite, and you'll get on just fine." As his boat shifts restlessly even in the glass-calm marina, he laughs. "Let the good times roll." There is an inescapable sense that with this boat, the good times will roll very quickly indeed.

Elliott's racing plans for *Kiwi Coyote* began with the Pacific Cup race from San Francisco to Hawaii starting in July. Robin and Des Stewart chartered the boat for the race, which they planned to tackle with a crew of eight including the Elliott brothers, Greg and Bruce, Stu Clark, Richard Bearda, Craig Smith and Don West.

After that, the plan was for the boat to return to Auckland for some local racing, before heading to Australia to take on the trans-Tasman cousins in events up and down the east coast, possibly including the next Sydney-Hobart Race. □

#### **Specifications:** Elliott 14M racing yacht

**LOA**...14.0m    **LWL**...12.8m    **Beam**...4.1m    **Draft**...3.5m    **Disp**...6 tonne