

Modern Olympic movement

Greg Elliott has long been regarded as a designer ahead of his time. **Rebecca Hayter** talks to the innovative Kiwi about his hopes of igniting a new era of sailing at the London 2012 Olympic Games regatta in Weymouth.

It's a long way from Westhaven, Auckland to the Olympics in London, but in 2012 the gold, silver and bronze medallists in women's match racing will sail to the podium, metaphorically speaking, on three Elliott six-metre yachts.

Since it was launched in 2000, the Elliott 6 has been the youth training boat for the Royal New Zealand Yacht Squadron, replacing the 20-year-old Elliott 5.9.

It has proved worth its salt in winds from five to 20 knots, with a maximum crew weight of 205kg.

More significantly for New Zealand yacht design, it has overcome loyalties among Olympic yachting bodies to oust the Yngling as the women's fleet racer, and replace it as the women's match-racer. At the International Sailing Federation (ISAF) Council in Madrid, Spain in November, the Elliott 6 scored 27 votes, against four each to the Yngling and SP3.

Greg Elliott has designed yachts such as the 30-metre, canting-keel maxi racer *Maximus*, and co-designed the 40-metre Atlantic record holder *Mari Cha IV*, but he is rapt that his Elliott 6 has become New Zealand's first Olympic boat.

"When I went through the whole process up there in Madrid, I realised we were playing with a different deck of cards from everybody else – and it is a game of cards."

Meaning that Elliott believes his eight-year-old design will herald a new day in international dinghy sailing in the wake of the slower, more technical Yngling.

"We're talking about the Olympics here, the pinnacle of sport. I find it unusual in this day and age that we're not using this day's equipment when it comes to yachting. There is a number of other classes in there that need to be tidied up as well – what's a thing like a Star still doing there or a even a Finn?"

The Elliott 6 will be good for women's sailing, he says. "It's athletic, and it's this century."

As an Olympic class, the Elliott 6 will sail with three women crew, averaging 68kg each. It delivers excitement, fully powers up in 8-10 knots, and planes at 12-14 knots in 18-20 knots of breeze. It performed well in the 2008 women's worlds in New Zealand.

"It has a simple rig," Elliott says, "only five stays supporting the mast so there is not much tuning involved. It comes down to sailing skills rather than technical skills."

The yachts will have a carbon-fibre rig and slightly less sail area than the unmodified Elliott 6, to enable sailing in winds up to 25 knots, which it may encounter at venues around the world in the lead-up to Olympics 2012. It will have a removable keel, so four boats fit in a shipping container, and be built in fibreglass by McConaghy Boats in China.

The yacht's flared topsides enable crew to stack well out using hiking straps; the crew's ability to move as one and keep the boat in optimum trim for the wind strength and sailing angle is paramount to boat speed. The mast is well forward, providing a big mainsail, small jib and average size spinnaker.

The Olympic spot comes at a time when the global economy is light and variable.

"It's in trouble," Elliott says. "Simple as that."

That talk leads to boatbuilding in Asian countries, particularly China, in the pursuit of lower overheads.

"The last nine years of socialist policies that have been running this country have destroyed manufacturing-based incomes: the cost of compliance. We were manufacturing here for many years and it's just cost-prohibitive to manufacture here, regardless of exchange rates."



Even so, manufacturing in a China "is a minefield". He lists the three scenarios: the overseas-based company which sets up shop in China, the Chinese company with overseas investors, and the all-Chinese company with no ex-pat input.

"You're dealing with 1.3 billion people and they don't necessarily do business the way we're used to doing business. They have their own set of rules, and sorting through that is a minefield because you've not only got language problems, there are also cultural differences."

Even companies that have been trading for decades may lack cash flow.

"They might have a big building but they won't have a battery drill."

Elliott's first production powerboat is also under construction in China and due in New Zealand early this year. Like his yachts, it promises a low-drag hull; at 6.6m long, it does 32 knots with 90hp.

With this, the Olympic Elliott 6, a series of racing keelers and his range of Tourer cruising yachts, Elliott is one of New Zealand's most successful designers. He

knows this, but he sees himself as part of New Zealand's dynasty of design: the likes of Jim Young, Bruce Farr, Murray Ross and Alan Wright.

"All I have done is pick up the baton and run with it," he says.

He stays true to the basic principles of yacht design: maximum stability for minimum weight, on the longest available waterline length. It's there on any Elliott yacht hull: plumb bow, straight transom, flared topsides, but there is always innovation – such as canting keels, particularly as they cross over from professionally crewed racing yachts to cruising yachts.

"Canting keels can fit into any boat size really. I think it's a logical thing to do for a monohull. For two reasons: it gives it more stability, which increases the speed, but it makes the boat more upright, so it makes it more comfortable."

He estimates a canting keel costs from 60% to 100% more than a fixed keel, depending on its level of sophistication. Although this relates only to the cost of the keel, the increased stability allows for more sail area, which in turn requires bigger winches because of the stability increase, and other deck gear, so the costs soon add up. Elliott has designed two 50-footers with canting keels; one is 40% more powerful than the other and cost twice as much.

"I wanted to put canting keels in cruising boats a little earlier but it takes a long time for the public to grasp new technology. At one stage, having a lifting keel on a boat was like: 'Wow, you gotta be joking, it's so unsafe.'

"Now we've gone from fixed keels to lifting keels and different forms of increasing the stability, by using water

ballast and then, 'Oh, let's put a canting keel on it,' and now we've got canting-lifting keels."

But innovation always brings flak.

"When I designed the 5.9 as a trailer yacht, they thought: 'That's not the same as my Hartley 16,' so there's something not right about that thing."

The 50-foot, two-masted schooner, *Elliott Marine*, launched in 1994, also borrowed from the future.

Schooners, defined as having masts the same height or with the foremast smaller, were generally associated with workhorses before the age of steam, but Elliott's version had twin, rotating, carbon-fibre masts with no spreaders. It held the Coastal Classic monohull record of nine hours, 20 minutes for 11 years until it was broken by a yacht twice its length, the 30-metre *Konica Minolta*.

Elliott has continued to push the boundaries with the likes of *Maverick*, *Kiwi Coyote*, *Outsider* and *Maximus* and, since he's largely funded such projects personally, feels no obligation to defend his design theories, especially as their design and development work then feed into other projects.

As he says: "If you're going to go out and do something, then something's going to happen. If you do nothing, nothing happens."

One thing's for sure: there will be plenty happening in women's sailing at the 2012 Olympics.

Elliott 6 specifications	
loa	6m
beam	2.3m
draft	1.6m
displacement	635kg (dryweight)
sail area	
main	15.9m ²
jib	7.7m ²
spinnaker	28m ²



Jess Smythe and crew train on one of the royal New Zealand Yacht Squadron's Elliott 6s.