

## **Hydrofoils used for the first time in the World Championships by Brett Burvill**

The most exciting development seen at the series was undoubtedly Brett Burvills hydrofoils. He had only used them twice before the championships and spent much of the series learning how to sail with them. The boat was supported by two foils attached at the front of the wings and a very deep rudder with a large T foil at its base. The front foils were generous in size and were angled inwards by about 45 degrees (Bruce foils for the technically inclined). They were capable of lifting the boat out of the water in under 10 knots of wind. When going well in ideal conditions the speed Brett achieved was truly awesome possibly comparable to a 49er!

The main issue with the foils was control. Sitting too far back in the boat caused the front foils to porpoise upwards and then stall, producing a usually catastrophic nose-dive. Heeling the boat excessively to windward would cause the leeward foil to come out of the water, the windward foil would then slide in on itself producing a sudden windward lurch and nose-dive. This behaviour was particularly a problem when sailing side on to waves (ie. on most of the legs of an M course!) when the leeward foil went into a trough. Upwind the foils were quite straightforward to sail, even in rough conditions. Quite unexpectedly it was found that the boat could be tacked faster on foils than without. It was not unusual for Brett to get to the top mark well clear of the fleet, but to have dropped many places by the time he reached the bottom mark.

After the series Nigel Oswald from the UK bought Bretts foils. The UK group are intending to display a Moth with the foils at the London Dinghy Show at the end of February. No doubt we can look forward to some developments taking place in the UK over the northern hemisphere summer. At the World AGM there was much discussion on the foils. The general sentiment, while being somewhat apprehensive, was generally supportive with a feeling that we have a duty to sailing to pursue these developments because we are one of the few classes that can actually do this sort of thing.