

## **Thermals in the Hauraki Gulf**

When there are several hot days the water in the harbours, estuaries and shallows warms up. The outgoing tide then takes this warm water out to the channel and north of Waiheke where it creates thermals and sea breezes that can block the weather. The result can be extensive areas of the gulf with no wind at all where the thermals form even though these may be surrounded by breezes blowing towards them.

### **Anniversary Regatta late 1970s - Multihulls**

The course for the multihull race was from Torpedo Wharf to Kohimarama Buoy then to C Buoy (I think) in the Rangitoto Channel and back to Torpedo Wharf. The wind at the start was south-east and the tide was going out. Cyclops was a Jim Brown Searunner 31, a cruising design with a central cockpit. It was built by my father, Tony Plinston, and I over four years and was being sailed by the two of us. The boat was slow compared to the racing designs that made up the majority of the fleet.

The start was made by about 10 catamarans and trimarans and the faster boats raced ahead to the coast of Rangitoto from where they should tack to lay the Kohimarama Buoy. However, the outgoing tide had brought warm water from the Tamaki River and other shallows out towards the channel and these boats slowed in the dying breeze caused by this thermal. Meanwhile the thermal also shifted the wind towards the south and we, being well behind the leaders, could point up until we were sailing directly to the mark while the leaders were left downwind of it. We arrived with the first of the fleet and we were about third around the mark.

They all rushed off under spinnakers to the next mark down the channel and we were soon last again, but not so far. The tide had now taken the warm becalmed patch also down the channel to the buoy we were to round. When we got there we could see that the tide was running fast past the buoy at some rate and the fleet, having run out of wind, had been carried north by it, the closest was a couple of hundred yards away. By aiming up-tide of the mark on a broad reach under spinnaker we were able to round the mark just a yard or two away from it, sufficiently out of the becalmed area, we then spiked the spinnaker and pointed up to a close reach to get out of the tide, and away from the dead patch as fast as possible.

With just two people on board we carried the spinnaker without using a pole by having preventers from the float bows and sheets from the ends of the after beams. We removed the spinnaker by setting the genoa and then pulled the pin on the windward preventer and letting the sail stream astern on the sheet while we set the boat on course. Then I pulled the sail down into the side nets while my father eased out the halyard.

We were now leading the race with just one leg to go. The dead patch soon got some wind and the fleet chased and caught us before the finish but our handicap gave us the win.

### **Epiglass Trophy - Two Weeks Later**

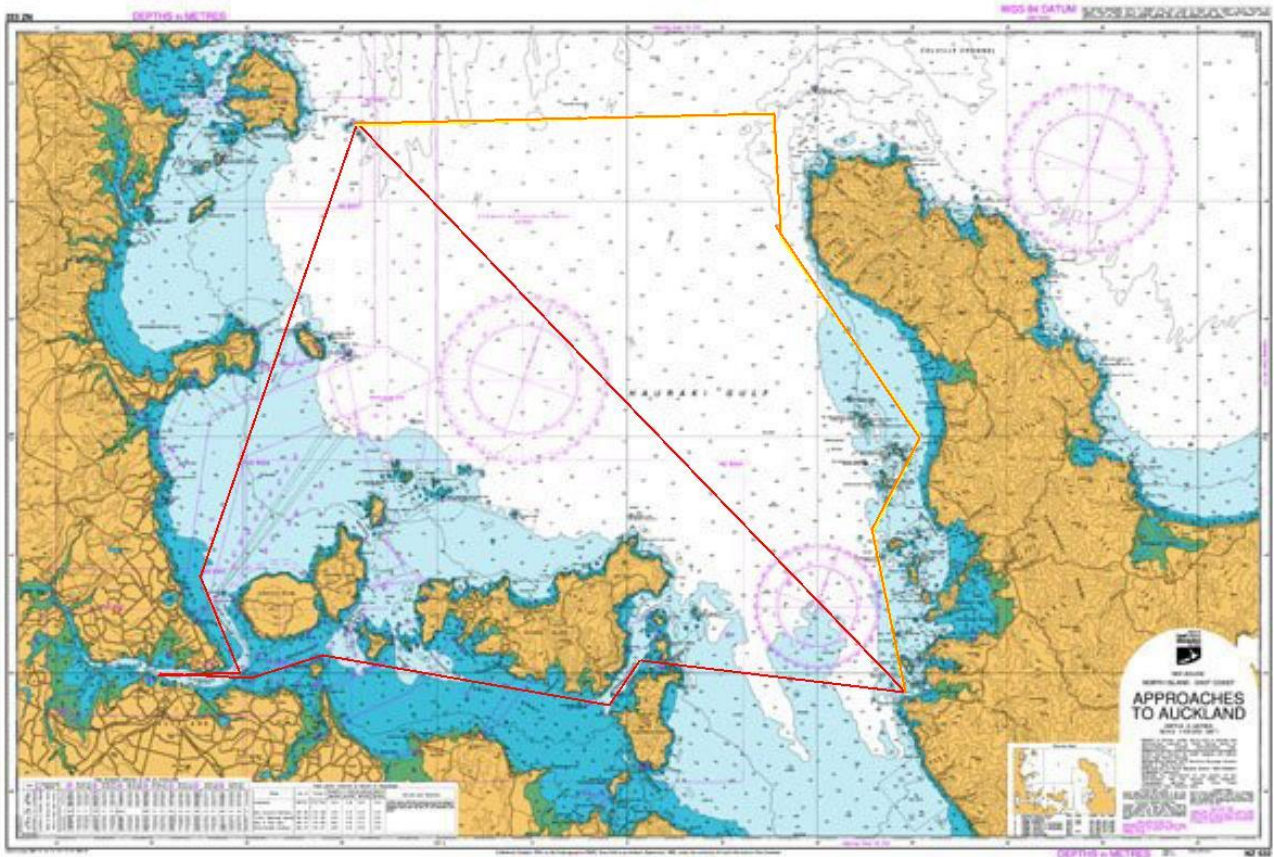
The Bolocovic Cup race for monohull yachts in various classes started at Orakei Wharf,

rounded the Cow and Calf Islands off Coromandel, then around Canoe Rock off Kawau Island, and back to Orakei for the finish. The Multihull Sailing Association ran a race at the same time around the same course but with the start and finish at Richmond Yacht Club for the Epiglass Trophy.

Around a dozen catamarans and trimarans started the race, including Cyclops with myself and my father on board. Initially the wind was south east but sufficiently in the south to make Cow and Calf on one tack. By the time we had travelled the 30 miles or so to this mark the rest of the fleet were well ahead. As we rounded the islands we could see along the path to the next mark that there were many dozens of boats becalmed with spinnakers hanging down to the deck and no movement at all. There had been a few hot days that had warmed the waters of the Firth of Thames and the outgoing tide had taken this out into the Gulf to create a huge thermal area that these boats had sailed into. As we were close to the Coromandel coast there was air running down the hills to create a sea breeze that reached out as far as we were but then was carried aloft by the thermal. Deciding that we would prefer to be sailing rather than trying to go in the right direction and being becalmed, we headed north in this band of breeze. Following us to the islands was a group of half a dozen quarter-tonners. These also saw us sailing along at a good speed rather than heading for dead wind and they followed us north.

The area of breeze was initially quite narrow and close to the shore. This was illustrated clearly as every so often one of the quarter-tonners would lose confidence in our path and would turn towards the next mark. They would sail a couple of hundred yards and then run out of wind and not be able to return. As the hills got higher as we went further north the band of breeze seemed to be wider and we could sail a bit further from shore. We were soon closing on the tip of the peninsular and would need to make a decision about our next move. Looking back toward Waiheke all the boats were still becalmed. Only two quarter-tonners were still following us, one of them was Magic Bus.

We could now see through the Colville Channel, the next mark was due east, and there were no more hills but suddenly there was a new fresh breeze from the north-east that came through the channel. We immediately turned left and broke out the spinnaker. With just two of us on board we carried the spinnaker without using a pole by having preventers from the float bows and sheets back to the ends of the rear cross arms. By having these ropes around the winches and cleated appropriately we could set the spinnaker on a run easily. I would go to the bow, attach the halyard and feed out the sail while dad hauled it in and then released the genoa halyard. I would tie down the genoa then go back to the cockpit to do the final adjustments to the ropes. Having done this in just a few seconds we could sit back and watch the several crew on the other boats struggle with poles and sails for a minute or two. Soon the three of us were bounding along at 10 knots or more on the 20 mile leg to Canoe Rock. We had dolphins riding between the hulls for a while and saw Little Blue Penguins out fishing.



As we approached the rock we could see that some of the larger boats had managed to get through the doldrums. We saw Krisis creep around the mark. There was a 65 foot A class keeler that was sitting motionless with its spinnaker hanging to the deck. Getting closer, this did not stir even though we were bounding along towards it at 10 knots or so in a strong breeze. We closed to half a mile and there was no stirring. At 400 yards the sail started to fill. 300 yards and it was full and pulling. 200 yards and the boat had a bow wave. 100 yards and the A class was up to speed and we didn't get any closer. They may have watched us for two hours speeding towards them but we were on the leading edge of that stream of wind for all that time.

As we rounded Canoe Rock the sun was low in the west and it would soon be dark. The thermal and the sea breezes had died and the weather returned with a south-westerly to give a windward journey back to the harbour. With just two on board we changed to our cutter rig of staysail and yankee which not only was easier to reduce sail if the wind got stronger but also allowed a view to leeward from the central cockpit. It wasn't as fast as the sloop rig but was much safer when short handed and at night. As we went through Tiri Passage a bunch of One Tonners swept past to leeward of us.

Magic Bus won the Bolocovic Cup, we like to think that we inspired their course and led them to victory. When we reached the harbour the tide was going out again, the wind had died away and we struggled to get to the finish line at Westhaven. We thought that we would still win on handicap only to find that our handicap number had been changed enough for us to be placed third.

Richard Plinston.