

## **'Computer' useage on CO32s whilst racing**

### **Introduction**

There has often been discussion within the fleet as to what computer equipment is allowed on board whilst racing and whether there should still be an attempt to control such equipment. Drumbeat was given permission some time ago to use a computer for a limited period provided that we reported back on our findings. This document is that report.

### **Computers on board**

The CO32 racing rules state 'The aim of the Class is prevent the use, or the interfacing to the yachts standard instruments of further computer equipment designed to enhance the yacht's performance whilst racing'. What exactly is meant by standard instruments is, to my knowledge, not stated. I shall return to this question later.

### **The system we used**

Our standard instrument system is a B&G H1000 with the small chartplotter included. We added a Hammerhead ruggedised tablet computer with the race navigation programme, Seatrack, loaded. The computer picked up navigation information from the B&G system using a Bluetooth link which meant that the computer could be used on deck unless battery charging was required. The software included basic navigation with displayed tides (from Winning Tides), course prediction using tidal information, starting line help (after 'pinging' both ends of the line), true wind recording, target boatspeed using polars and a host of other options that we hardly looked at.

### **How well it worked**

Generally we were disappointed with the functioning of the system. We had so many problems that the number of times we got useful information was pretty limited and at times we got misled by the system. The computer was supposed to be ruggedized but gave us no end of problems. It did not seem to be very resistant to the marine environment. We also had problems with the B&G system locking up and having to be restarted. We are not sure whether this was partly due to the 'extra' parts we had on it (to provide the Bluetooth communication) or not.

We therefore got very limited use from the system although at times it did prove useful. The software did require some experience which can probably only be got by time and races.

Unfortunately we did not have very many of either. When Mark was not onboard we did not use the computer since nobody else was familiar enough with it.

Another problem was that our instruments are not well calibrated. This can be very important when using some of the more sophisticated features of programmes like Seatrack.

### **Did it help our performance?**

This is very difficult to answer. There were at least a couple of occasions when it seemed to. One Cowes Week race when we used it to decide when to tack out of shallow water for the mark our decision proved to be correct whereas Blanco and others went too early. This was balanced by the time when we were in the same position and waiting for a certain bearing to the mark before tacking. We belatedly realized that the whole system had locked up and we overstood badly. The ease of seeing tides was probably a benefit although we often ended up looking at the hard copy

tide charts. Although we often 'pinged' both ends of the line we never really used the starting feature. There was just too much else going on to concentrate on the computer. With a more reliable system and more experience we might have benefited more.

### **Our rules and the use of computers**

I believe that the rules as they stand are ambiguous and under the simplest interpretation of them most, if not all, boats break them every time we race. This observation is based on the following.

1) To my knowledge there is no definition of 'standard instruments'. To go back to basics one could assume that only a simple log, a depth sounder and perhaps an anemometer are standard. Is a GPS standard? Some smaller boat fleets forbid them, Is a chart plotter standard? Many boats use them.

2) How do we define a computer? Who has a true wind readout on their instruments? It certainly takes a computer in the instruments to calculate this and this computer is directly connected to the 'standard instruments'. Our B&G system certainly contains at least one computer. In theory it calculates the tide. It also computes the bearing to waypoint and course over ground. **We all have computers of some kind and they are connected to the instruments and we use them to enhance our performance.**

3) It seems to me that probably every boat out there is breaking the rules with respect to the use of computers so how can we control them?

4) I also think that the advantage of a 'sophisticated' system (however you define it) on a Contessa 32 is marginal particularly on the short 'round the cans' courses most of us race. Take away all computers and the same boats would be up the front.

I therefore believe that we should abandon any rule trying to control the use of computers. It can't be done. And for some of us there is some added enjoyment in adding another layer of complexity.

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