

Article 1.4

Handicapping - Art or Science?

The setting of handicaps at club level is often dealt with by a 'handicap committee' – sometimes simply a couple of experienced cruiser sailors conjuring up some numbers over a couple of pints in the club bar. Although we are talking 'weekend' sailing, rather than national/international level, it still matters to all those involved that everyone is treated as fairly as possible and, crucially, in as transparent a manner as possible.

Nils Nordenstrom (see Article 2.3) is credited with the perhaps tongue-in-cheek remark that "a good handicap system is one with which no-one is satisfied". However, the inherent nature of the problem is also captured in "Arrow's Impossibility Theorem" of 1951, which can be broadly interpreted to mean that it is impossible to rank more than two individuals. Economist Kenneth Arrow popularised his theorem in the context of social science and the ranking of preferences, but the principles translate to other ranking systems.

Small wonder then, that there has always been a need for some kind of formula approach that can be used for any boat and based on individual boat characteristics in isolation of other factors. This separation is more difficult in practice than it seems. For example, certain classes of boat will attract sailors who sail a boat to the limit of its potential, employing optimum crew, materials and maintenance strategy, with the result that there is a larger than average mismatch between actual and predicted performance.

Rules used at national and international level are secret and/or complicated. The secrecy is defended on the grounds of avoiding messy handicap disputes and the designing to handicap by yacht designers. Even here, what appears to be a scientific approach is undoubtedly supplemented by other judgements and, like most systems, tweaked over time. At club level, systems need to be very simple. My own experience suggests that getting anything other than basic data from weekend yachtsmen is challenging and error-prone.

Much has been written about handicapping over many years, in many parts of the world. If the problem were easy to solve, it would have been done so by now. When I first started to write about my formula development, I had a call from someone in the US who excitedly wanted to know if I had found the 'holy grail'. However, there is always the observation that any system has its pros and cons and nothing is perfect. Local conditions, club ethos, data availability, all play their part.

Naturally, I lean towards a formula approach. There are those who think a formula isn't helpful in assigning handicaps because most committees can agree on a rating within a small margin. In response, Terry Schell (see Article 2.3) pointed out that this consensus implies that the judges are using similar criteria in their judgement, but it does not imply that the criteria are correct or correctly weighted. There is impressive evidence in the study of decision making that a formula will produce fewer errors in making an initial estimate. Terry also added "plus, you cannot bribe a formula"!

I do empathise with a reference made by a US racing official to "a formula based approach with a helping of the 'human touch' ". In my application of handicap models I have sometimes needed to sacrifice some of the finer statistical rigour in favour of some pragmatism that reflected sailing experience and user perceptions.

So, is handicapping art or science? – the answer is definitely 'both'.