Wind self-steering

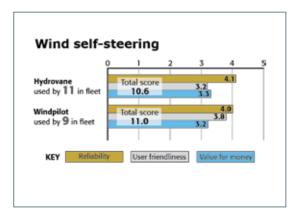
Only 15 per cent of ARC participants carried windvanes and many of those were primarily used as autopilot back-up. This is a principal difference between electrical and wind-based self-steering systems, as the problems that occur on windvanes can normally be fixed aboard, whereas autopilot problems more often involve a technical complexity that can render them defunct for the remainder of a crossing.

Two brands made it past our minimum-of-four threshold and the Hydrovane pipped the Windpilot in terms of numbers, 11 compared with nine, but the latter fared best in the satisfaction stakes.

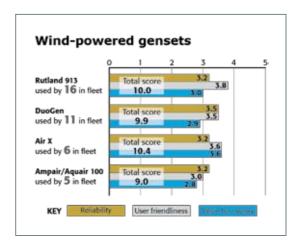
Only two crews encountered installation problems and both were with Hydrovanes. One Hallberg-Rassy 40 had three attempts at installation and the owner agreed with a fellow Rassy skipper that it was difficult to get the vane to steer an accurate course downwind. Others found the set-up difficult, especially in big seas.

Of the Windpilot types, Dutch owner Robert Visser aboard another Hallberg-Rassy, *Robinson*, exclaimed: "100 per cent good", sentiments echoed by Westerly Corsair Fair Encounter after John Easteal used it for the whole crossing. And, despite needing practice with theirs, the crew of the SunFizz 40 Jan Wellem reckoned it "changed sailing".

There weren't enough users of other types, including Aries and **Monitor**, to provide a fair score or instructive comment. Although the number of windvane users continues to fall, for a certain cruising sailor their power-free dependability will hopefully continue to speak for itself.







Finding a mix of renewable generating systems should be higher on future skippers' agendas

Batteries

This year we wanted to find more out about batteries, battery charging and renewable energy, so included questions about solar panels and batteries, as well as the normal diesel, wind and towed generator sections.

The greatest majority of batteries carried were, unsurprisingly, wet lead acid types (81 boats), while 54 boats carried gel types and 29 AGM. 110 crews reported that they used 12V and 48 boats 24V systems. While the majority of the fleet had capacities ranging from 300–500ah, almost 30 per cent of the fleet carried a hefty bank of over 600ah batteries, indicating the proliferation of power-hungry systems on many modern yachts.

Average engine use for battery charging was between one and five hours a day, and while generators remain the most common method of charging the batteries, it was clear that finding a suitable mix of renewable systems should be higher on future participants' agendas.

TOP RATED Air X

Wind-powered generators

As usual for this category, the majority of users were disappointed with performance in the downwind conditions (reflected in the scores), but things picked up once they arrived at a balmy anchorage and the apparent wind started to generate more amperage.

"Disappointed with output", "very little contribution downwind", "not much help in tradewinds, but good at anchor" summed up the comments and perhaps explains the low scoring.

The **Rutland 916** wind-powered generator was the most commonly carried, followed by the **DuoGen** combined wind/water generators. But in

terms of user-satisfaction, Air X (pictured left) scored top marks.

A Hallberg-Rassy 37 owner thought the DuoGen's installation manual could be improved and felt the performance wasn't good enough given that it was also a towed generator, while *Dances with Waves* and *Nightsong* chose not to use theirs in the ARC (probably wise owing to the lack of apparent wind).

The Rutland 916 was described as too noisy by another Hallberg-Rassy owner, who felt it transmitted too much vibration into the aft cabin, and a First 47.7 skipper thought the supplied bracket and pole mount "were useless and had to be modified", remarking that it took over 20 knots of wind from behind to start power generation.

Not the ideal Atlantic crossing solution, but wind-powered generators are handy once the Caribbean anchorages are reached.