

Windvane vs. Autopilot

The autopilot and windvane work well as a team, each having their strong and complementary points. Offshore, the windvane should be considered the primary steering gear, the Captain, and the autopilot his or her mate. The autopilot's place on the voyaging sailboat is in calm conditions when it's time to use the engine because there is no wind. In stronger winds the autopilot becomes less and less efficient, and it certainly will have a hefty appetite for precious electricity. As conditions deteriorate most autopilots are simply not fast enough to handle steering effectively. As the wind picks up and the conditions worsen the Monitor is in its element.

Perhaps part of the lure of the autopilot is the urge of the modern sailor to feel he or she is using the latest in technology. However, saltwater and electricity do not mix, and when saltwater wins the windvane will soon prove that there is no need to reinvent the wheel. If it seems old-fashioned, it might be because it is. Sailing is also old-fashioned. Let's face it: there is not really anything modern about sailing; the best way going to windward is in a 747.

Tony Gooch, who completed his non-stop circumnavigation in 2003, wrote an article in the January 2004 issue of *Cruising World* in which he compared the efficiency of mechanical windvane and electronic course keeping systems. Read his surprising results here, and look up pictures of "Taonui" in our Boats & Photos section.

West Marine probably sells more electric autopilots than any other company in the United States. Because of the custom mounting requirements of windvanes and the need for specialized expertise in determining which system is best for which boat, West Marine does not sell windvanes. They do however advocate their use in the advice section of their yearly catalog. Here are quotes from "Selecting an Autopilot" -

"Probably the biggest problem with autopilot reliability is that long-distance sailors frequently buy small, cockpit-mounted autopilots, then expect them to operate flawlessly over a multi-year cruise. When their autopilots need repair, and they will need repair eventually, our customers find themselves in a location where it is difficult or impossible to get the unit serviced. Many cruisers sail short-handed and rely on the autopilot for much of the steering, so they are in a pickle when it fails. Therefore, we do not recommend cockpit autopilots for long-distance sailing unless one of the following applies:

- You have a backup autopilot in case the first one fails.
- You have a wind vane self-steering system and do not depend solely on the autopilot.
- You love steering by hand for long hours.

West Marine has had this message to their customers in their catalogs for many years. In our opinion a budget-conscious sailor may have a small cockpit autopilot if he/she makes sure that the autopilot is only used for motoring or sailing in very light winds. As soon as the wind is strong enough for the windvane to respond it should take over steering. Of course, the under-deck autopilots are a lot better than the cockpit-mounted ones but they cost a minimum of \$6,000-8,000(US) installed. The additional cost for batteries, electrical sources (solar, wind,

water or generator), as well as spare parts and fuel should also be considered. A windvane is far less expensive, silent, doesn't produce exhaust gas, and works more efficiently.

"BLUE WATER SAILING", December 2008 - letters appearing in response to the article "Autopilot Blues" in the October 2008 issue

In the October 2008 issue you had an article "Autopilot Blues: Frustrations and Solutions on an Atlantic Crossing." The article describes how a Corbin 39 with a crew of two had autopilot failure after the departure from Bermuda. After turning around and going back to Bermuda the crew spend two frustrating weeks contacting Raymarine, buying a new autopilot, negotiating with their insurance company and finally getting away crossing the Atlantic successfully. The autopilot failure happened only 24 hours after departure but if it had happened halfway across "the Pond" hand steering would have been the only option.

In the "Lessons Learned" section there is not a single mention about a wind vane. If the boat had been equipped with a good wind vane the autopilot failure would only have been an inconvenience if they had experienced conditions with no wind. In a calm your autopilot will soon become your best friend, but if it is enough wind to sail the wind vane would have done all the steering. It would have done it without making noise and without using electricity. In most conditions the wind vane would have steered better than the autopilot, especially in upwind conditions and in extremely windy conditions.

I believe that many cruisers of the new generation are not even aware of wind vanes or consider them old fashioned (what is modern with sailing?) and sometimes even ugly (the more it blows the better they look). They certainly are proven beyond any doubts.

After a circumnavigation 1970 to 1976 (before GPS!) I have been commercially involved in self-steering. For over 30 years my company has delivered thousands of wind vanes and autopilots to blue water cruisers. My advice has always been that you should have both. The autopilot and the wind vane are not competitors; they complement each other. They work well in different conditions and if one system fails, the other will take over. Electronics and electrical charging systems are more prone to failure in a salt-water environment. Experienced wind vane sailors have often had the same wind vane for 10 to 20 years. You will have to look hard to find a sailor who has used his autopilot extensively for such a long period without multiple repairs or replacements. Many I experienced sailors sail with several back-up autopilots but nobody sails with two wind vanes. If lightning strikes and you lose your electrical system it doesn't matter how many back up autopilots you have on board. With no electricity, you have no autopilot.

Bulletproof self-steering should be very high on the priority list when outfitting for blue water cruising. Our records show that we have delivered 16 Monitor wind vanes to Corbin 39 owners and if Monitor number 17 had been on Paul and Christine Melanson's boat a lot of frustration could have been avoided.

Hans Bernwall, Founder and Circumnavigator
Scanmar International, Inc.

I read with interest Christine Melanson's article, "Auto-pilot Blues", which appeared in the October 2008 issue. Perhaps some alternative observations might prove useful to them and to your readers.

I, too, crossed from Bermuda to the Azores some years ago and I also suffered an autopilot failure en route. However, that did not interrupt my crossing, nor did it deprive me of self-steering. That's because my boat was equipped with (a) a spare autopilot, and (b) a Monitor wind vane. Both proved invaluable on that passage and during the rest of Sparrow's 30,000 nautical mile cruise. As often as not, at least one of the autopilots was shipped off for repairs, but because I had back-ups I never had to sit and wait for it.

Two autopilots may seem extravagantly expensive, but that does not have to be the case. In my opinion, most cruising sailboats would be better off with a really good wind vane such as the Monitor, coupled with a small, relatively inexpensive tiller autopilot to "steer" the wind vane when the wind fails. This arrangement spares the autopilot the double duty of steering when the boat is sailing (since the wind vane does that), and it uses the power of the passing water to steer the boat, rather than large amounts of electricity, when the autopilot is employed. It also permits the average cruising sailor to afford at least one complete spare autopilot to use when (not if) the first one breaks down. There is also the added bonus that a wind vane like Monitor can serve as an independent emergency rudder should the boat's steering system ever fail. And as for expense, this wind vane/ tiller pilot (with a spare) setup costs the same or less than many of the big internal autopilots do by themselves.

If the Melansons' boat had been equipped this way, they could have continued their voyage after the lightning surge rather than delaying for weeks as they were forced to do.

Tor Pinney

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Author of "Ready for Sea! How to Outfit the Modern Cruising Sailboat"