

## **ESRC offshore sailor survey – trans Pacific responses**

In Feb. and March of 2026 the ESRC Working group surveyed BCA members who are currently sailing offshore around the Pacific Ocean. The email survey requested responses to 8 questions (see questions below). The objective of the survey was to gather information that would be useful to BCA members preparing to sail offshore or interested in conditions where they have sailed in the past.

The responses are presented in two documents. One for responses from cruisers currently on the west coast of NA – Mexico to Panama. And a second from cruisers who have recently crossed the Pacific.

We greatly appreciate the responses from offshore sailors and believe they provide interesting and useful information.

### **Responses from:**

DC – Duncan Copeland - NZ

CG – Chuck Gauthier – Fiji

### **Questions:**

- 1. Did you find weather information and forecasting to be reliable, or did you encounter unexpected wind or wave conditions?**

DC - In general, we found weather information to be reliable at a macro level, with forecasts giving a good overall picture for planning and passage timing. At the micro level, however, there was significant variability.

It was a notably unsettled year in the Pacific, with the trade winds not properly establishing until quite late in the season. Throughout much of our crossing, we experienced very little in the way of consistent trades — although other boats reported different conditions.

One of the most challenging aspects was wind direction. After crossing the equator, wind speeds and wave heights were generally forecast accurately, but wind direction was often out by 30–40 degrees.

Further into the South Pacific, the broader weather patterns remained reasonably well predicted, but local systems were less reliably forecast. We encountered several significant squally systems that did not appear in the models. As a result, integrating satellite imagery and rainfall data became an important part of understanding and anticipating conditions in real time.

Overall, it was a mixed season. We did not experience settled trade winds until around August, and local feedback suggested this was widely considered an unusually unsettled year — not just our own impression.

CG - I find weather forecasting these days to be much easier to obtain and under certain circumstances more reliable in certain conditions and there is more information when you are at sea and easier to get more forecasts and see trends. I find that the big systems are quite reliable most of the time. For example, the trip to or from NZ and Fiji is known to be a challenging passage at times. However, when you come to understand how the highs roll off Australia and move east forming the SE trades, sometimes with interposing lows that information is often quite reliable. Once you get near the ITCZ I find the reliability to be less, more like the micro climates found in the mountains and so less reliable. I try to look at the CAPE, watch longer range radar for squalls but the weather forecasting is less reliable. I find if you watch the weather a year ahead, at the time you try to travel it can be handy in general terms. A certain setup can lead to certain outcomes and although it doesn't predict the weather on the year you intend to travel, general patterns for that area

can lead to certain observations. That is an interesting observation that different areas do have weather patterns you can get to know to some extent.

If I was starting out, I would keep my eye on the 500mB charts. I went to a course on it by Lee Chesneau before I left and there is really some interesting information there. I never had a way to access that at sea (and still don't) and so never followed through on it as much as I would have liked. One thing I heard through the course with Trina Holt was to look into Windy as a weather platform and when I did I found it does have the 500 mB charts now. And so for those with Starlink it can be there. If people want more understanding about this Lee Chesneau wrote a book with Ma-Li Chen called "Heavy Weather Avoidance and route design". It could be worth a look.

**2. Were there other unexpected weather-related issues that you experienced? (e.g. waterspouts, lightning strikes)**

DC - Waterspouts no. Big squalls with lots of wind and rain in them, and frequently lightning, were common, particularly in French Polynesia, and across to Samoa.

CG - I have never seen a waterspout but have certainly heard about them. I find lightning very unpredictable and concerning especially in the squalls near the equator. I recall the first time we crossed the equator from S to N, which was more constraining because you are often not wanting to make more westing. I find it tougher sailing than say crossing from North America to French Poly because you are rolling down a nice latitude in the NE trades and watching the weather and then a nice pattern shows up, maybe the ITCZ even more N towards you and you say time to turn left. That was a fun crossing from N to S. Speaking of lightning there are regional considerations because when I was looking for insurance from NZ in Fiji one broker was telling me that he couldn't insure boats in Tonga without removing your rig for cyclone season because of their lightning damage risk which he was saying was their highest payout risk; higher than collision and other structural damage.

**3. Did you change your routing across the Pacific based on weather forecasts; or information regarding some islands having difficulties (eg. water or food shortages, disease, floods, or sea level rise problems)?**

DC - Not for any of these reasons, but we know others that did because of unusual weather patterns. We had always planned to go the norther route from the Societies to the Samoas, and to do so we 'skipped' along the top of a very large unsettled system that sat between the Societies and Tonga for more than a month. As a result, we know boats that were going to take that route that eventually went via the Samoas instead.

CG - I don't ever remember changing plans over these matters although you do here about examples of these issues and go to locations where these issues face the local populations. I certainly had examples of diminishing landmass and concerns about changing water levels and local concerns about having limited time before they would need to relocate due to loss of land in various islands and atolls. When in Majuro in the Marshall islands there would be storms that would cross from one side of the atoll to the other and the locals would talk about how that was a more recent phenomena. There were other islands such as the Western Kiribati, Tuvalu, and others where they were concerned about ocean rise. I heard about land mass loss in coastal NZ and plans to mitigate such concerns. Water was a concern in dry, low lying land where their water was

essentially roof collection and water conservation was very talked about at times in places like the Marshall Islands.

4. **Did you notice coral bleaching on any of the coral reefs you visited? In areas where coral bleaching was observed, were there any changes in fish or invertebrate abundance from what you expected or what you've experienced in the past?**

DC - Yes, we did observe some coral bleaching in a number of areas, along with physical damage likely caused by major weather events, including recent cyclones.

However, the most consistent and striking pattern we observed — both in terms of coral condition and fish abundance — was the impact of local human activity.

In more remote locations, such as the Gambier Islands, where there is a small population, minimal tourism, and limited fishing pressure, reef systems were in excellent health, with healthy coral and abundant marine life. As we moved through the Tuamotus and into areas with increasing levels of human presence, we observed a corresponding decline in reef health.

By the time we reached the Society Islands, where there is higher population density, tourism, coastal development, and associated runoff, reef systems were noticeably more degraded. In contrast, when we moved away from populated areas again, reef health improved markedly.

Further west, fishing pressure — often local and small-scale — also appeared to have a visible impact on reef ecosystems. Overall, the clearest pattern was at a very local level: the greater the human activity, the more stressed the reef systems appeared to be, both in terms of coral condition and fish populations. Conversely, more remote reefs consistently showed greater resilience and ecological health.

CG – Luckily, I don't have much experience with coral bleaching but perhaps I have self-selected to the healthy coral. I am an avid diver and it is not a coincidence that I have stayed for 3 years in Fiji this time. The coral is stunningly beautiful, healthy, and honestly I can't get enough of the place.

There are a few places where I think I saw differences between a visit in 2019 and this trip starting in 2023 but the locals say no it is the same. A fine point and perhaps it is more my fading memories than anything else. I certainly hear about coral bleaching in places like the Great Barrier Reef but it has been a very long time since I have dove there. I was in Honduras a year ago and the reef seemed different and the reef life was less but the locals say that was a result of a nasty hurricane a few years ago. There was lots of broken coral and less reef life at least in the daytime. The night diving was crawling with life. The one place I found the reefs to be in bad shape with limited life was the west coast of Mexico, even at night. But all this is very anecdotal and just because I didn't see it doesn't mean it isn't there. And there are other factors like the divers themselves. Divers are mostly quite conscious but disgusting behaviour is seen from time to time.

5. **Did you encounter islands suffering from drought, where water was scarce (or unavailable to cruising yachts).**

DC - Yes and no. In many areas, such as the Tuamotus, it is well understood that freshwater resources are limited, and most of the cruising community is mindful of this. Today, very few boats are without watermakers, which significantly reduces the pressure on local water supplies.

There are occasional exceptions, where boats are either unaware or less considerate, but overall, visiting yachts are contributing far less to water stress than they may have in the past. Where water is available you almost always pay for it.

In contrast, fuel availability is often a greater point of tension. With the increasing number of larger vessels — particularly large catamarans with higher fuel demands — there can be a lack of awareness that fuel deliveries to small islands may only occur once a month, or even less

frequently. We did observe instances where visiting yachts became unreasonably frustrated when they were unable to refuel, despite these clear local constraints. In turn, this frustrated locals. So while water scarcity is certainly an issue for many island communities, the impact from cruising yachts has decreased due to onboard water generation. The more pressing challenge we observed was around fuel demand and expectations, rather than freshwater use.

CG - Previously commented upon in low lying islands and atolls. Fiji is blessed with high centers and lush islands in most areas and that leads to fresh market produce for the most part. Low lying islands seem to struggle more with drought and difficulty with food production. I don't recall not being able to get some water but we were certainly aware there were limits and it was a resource to be mindful of in our behaviour.

**6. Did you encounter any marine heat waves or ocean dead zones ("blobs" = areas of the ocean with reduced oxygen levels, greater acidity, and reduced marine life)?**

DC – No

CG – No

**7. Is there anything you wish you had known about how climate change is impacting the Pacific before you set sail?**

DC – No, we felt pretty aware before we left

CG - A thought that sticks in my mind is something Jimmy Cornell said about his bible "World Cruising Routes" when he said he thought the Volume deserved an update because the best travel times for certain legs because those times with reliable weather are diminishing as time and Climate Change progress. That thought is in my mind as I am reviewing this book regarding my upcoming adventure. I think I would suggest people be mindful about that.

**8. If someone was going to be departing Mexico across the Pacific in 2026 or 27 (during a forecasted El Niño) what advice would you give them?**

DC - Understand the weather models and use them — they are a valuable tool. But once you're out at sea, you should expect conditions that don't perfectly match the forecast. This was normal under historical weather patterns, and it is definitely getting more unsettled out there.

As long as you're prepared and sail in a considered, conservative way, those variations are manageable.

At the same time, don't let the models dictate your entire decision-making. There's a tendency for some sailors to become overly cautious, avoiding passages that are well within their capability because the forecast suggests it might be a bit uncomfortable.

It's about finding the balance — using the models to inform your decisions, but not allowing them to limit your experience unnecessarily.

More broadly, there's a lot you can do to ensure you're not adding to the pressures that ocean environments across the Pacific are already facing. Be a low impact cruiser; as visitors, we have a responsibility not only to minimise our impact, but to actively respect and support the ecological and cultural values of the places we travel through.

CG - I think the advice would be to search out local knowledge. I am too far away from my crossing from Mexico to French Poly but let me give you an example of very good meteorological advice. Where I am staying through my third cyclone season I am at what I would consider to be a very good cyclone conscious marina with good rules and reminders but all places aren't like that and there are stories I could tell about Mexico as an example. At the start of each season the marina invites Fiji Met to give a presentation and I find them detailed and they bring up points I have never heard of at all. An example would be not just that it has been mostly a La Nina sequence but how the strength of the La Nina impacts where the cyclones will tend to spool up. And then there are other more local phenomena pertinent to this area such as the SPCZ (S Pacific Convergence Zone) and phenomena like the MJO (Madden Julian Oscillation) out here which I have experienced. So my advice would be to search for good local area knowledge. And one more bit of encouragement to first timer crossers there are numerous great salty helpful sailors out here and so willing to be helpful and share knowledge. But you do need to be able to sort the wheat from the chaff because there is lots of the latter out here too. As one of my mentors used to say "Safety and Patience run together" and I always try to remember that.

#### **Additional Comments:**

DC - Your questions don't cover this, but as a final observation, one of the things that really stayed with us is just how visible sea level rise already is across the South Pacific.

It's not only the low-lying atolls — you see it right across the region. In many places, it's very common to come ashore and notice trees with their roots exposed, palm trees fallen into the sea, stretches of beach that have clearly been washed away, and water edges being slowly undermined. You don't have to look for it — it's just there.

What struck us me also is how often it comes up in conversation. Speak to almost anyone locally, and it quickly becomes part of the discussion — how the shoreline has changed, what's been lost, what feels different even compared to a few years ago.

It feels immediate and real, not abstract. And more than anything else we saw, this is likely to be the defining issue for many of the islands in the years ahead — something that people are already living with day to day.