

TOTAL SOLAR ECLIPSE – NORTHWESTERN AUSTRALIA

UmbraOz 2023
April 20 Thursday

"We're off to meet the Umbra...the wonderful Umbra of Oz." 🎵 😊

FIRST ANNOUNCEMENT

for select friends who might like to join us for this eclipse

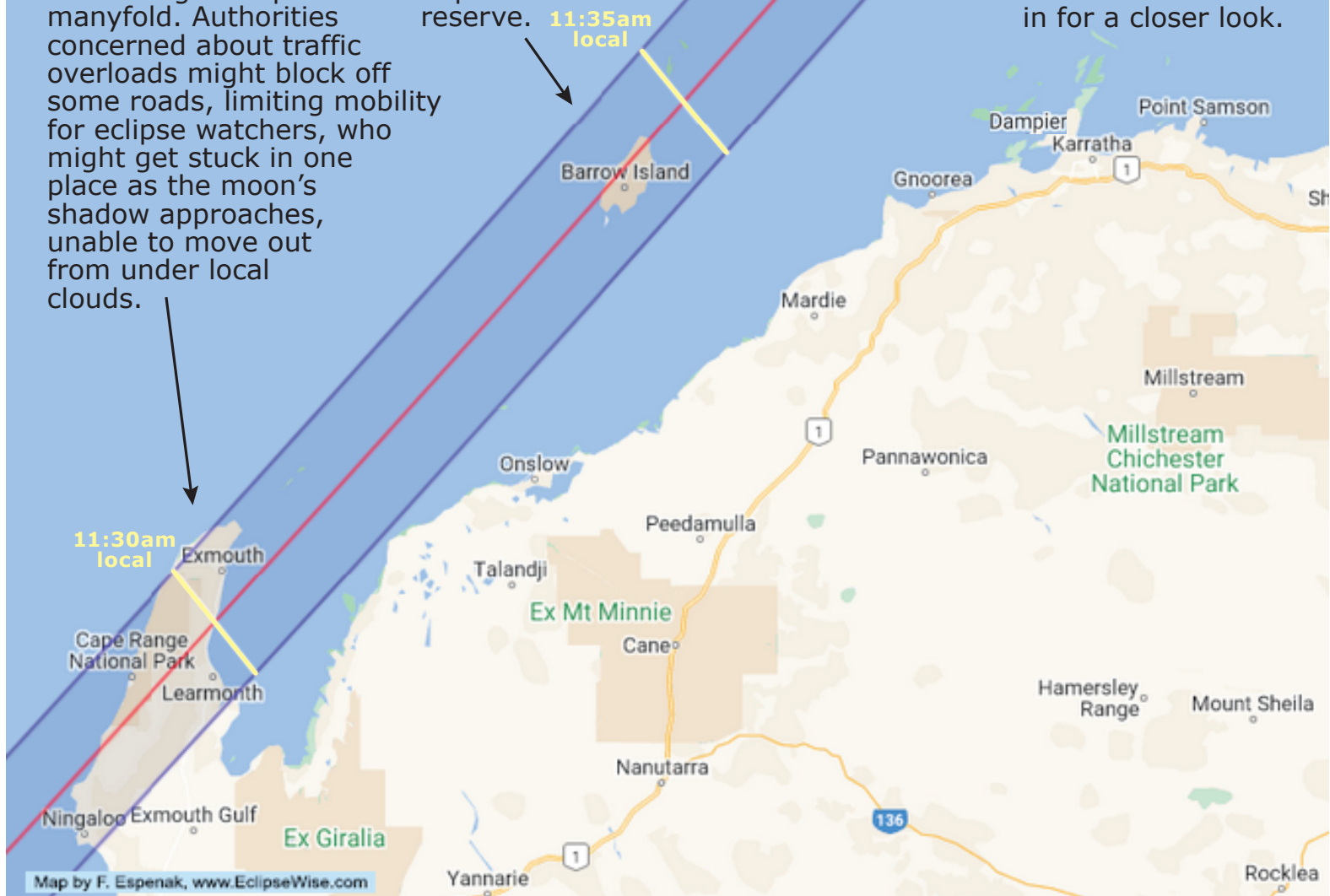
- An alternative to Exmouth: Lowendal Islands NE of Barrow Island
- Observe on land 1+ minutes of totality, same as at Exmouth
- With bonus: excellent boat mobility in case we have to "chase blue"
- We'll originate in our small vessels from Dampier/Karratha = larger towns which won't have the overcrowding Exmouth will have

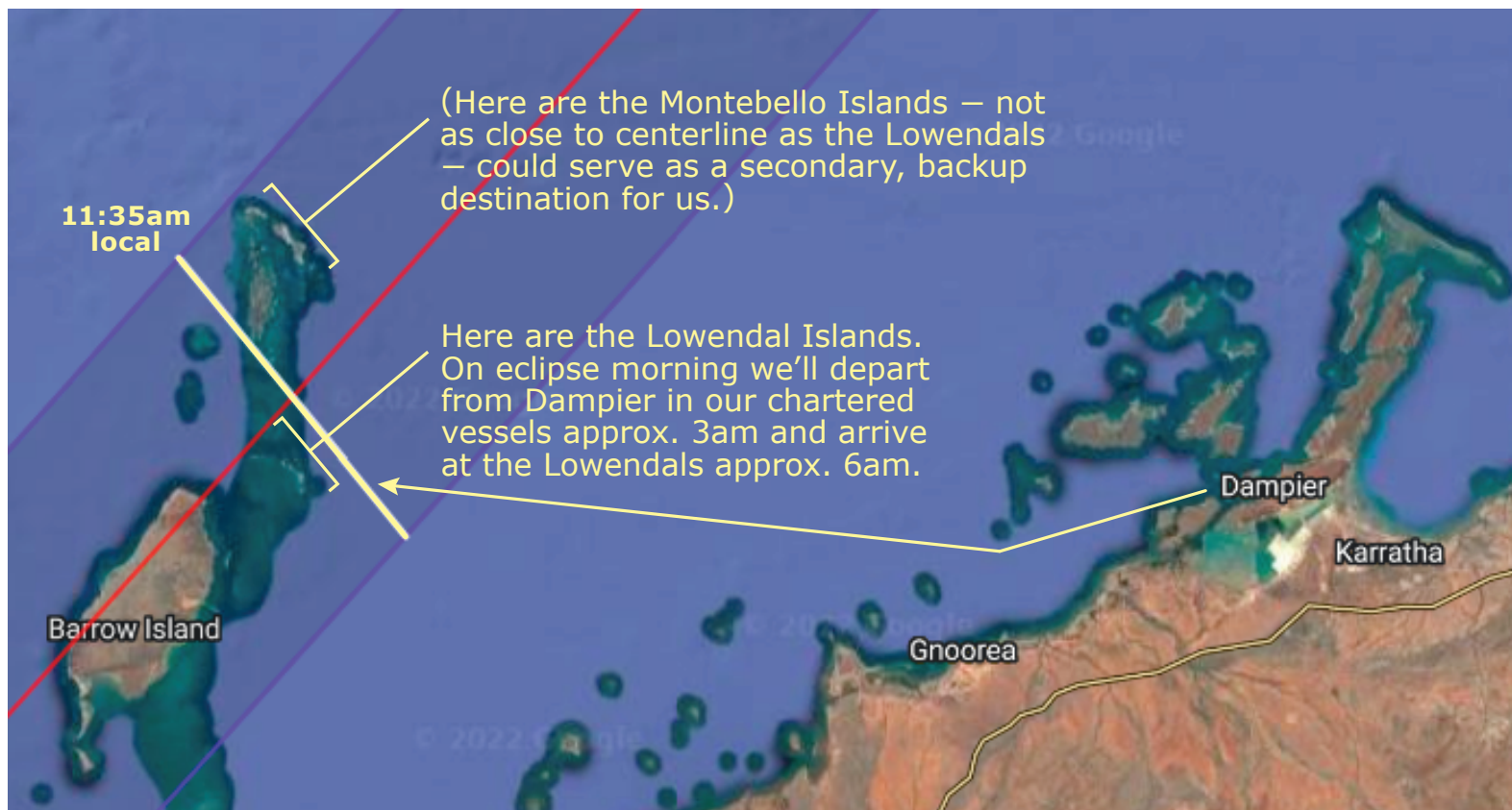
Here on Fred Espenak's eclipse map, it appears that the peninsula and town of Exmouth, and also Barrow Island, are the only two locations on land eclipse observers will have to choose from.

Exmouth is a very small resort town with limited resources, especially accommodations, which can be sold-out even in ordinary times, much less for during the eclipse period, when most hotels are raising their prices manyfold. Authorities concerned about traffic overloads might block off some roads, limiting mobility for eclipse watchers, who might get stuck in one place as the moon's shadow approaches, unable to move out from under local clouds.

Barrow Island would appear to be the only other option. It does have an airport, but is sealed off from travelers because a large oil company controls it, and also because it's an important nature reserve.

But there IS some more land in the path of totality: the Lowendal Islands northeast of Barrow Island. Let's zoom in for a closer look.





(Here are the Montebello Islands — not as close to centerline as the Lowendals — could serve as a secondary, backup destination for us.)

11:35am
local

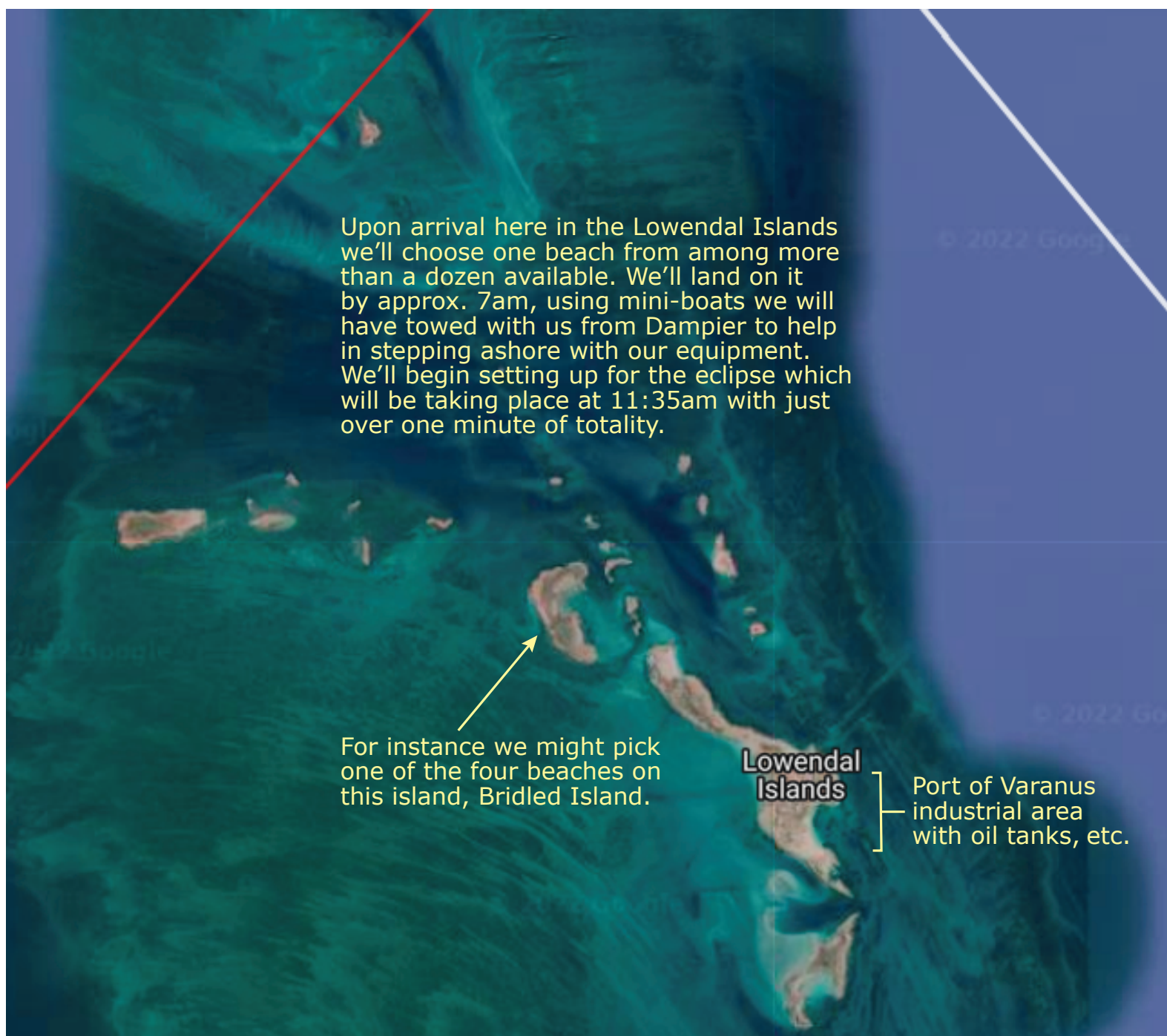
Here are the Lowendal Islands. On eclipse morning we'll depart from Dampier in our chartered vessels approx. 3am and arrive at the Lowendals approx. 6am.

Barrow Island

Gnoorea

Dampier

Karratha

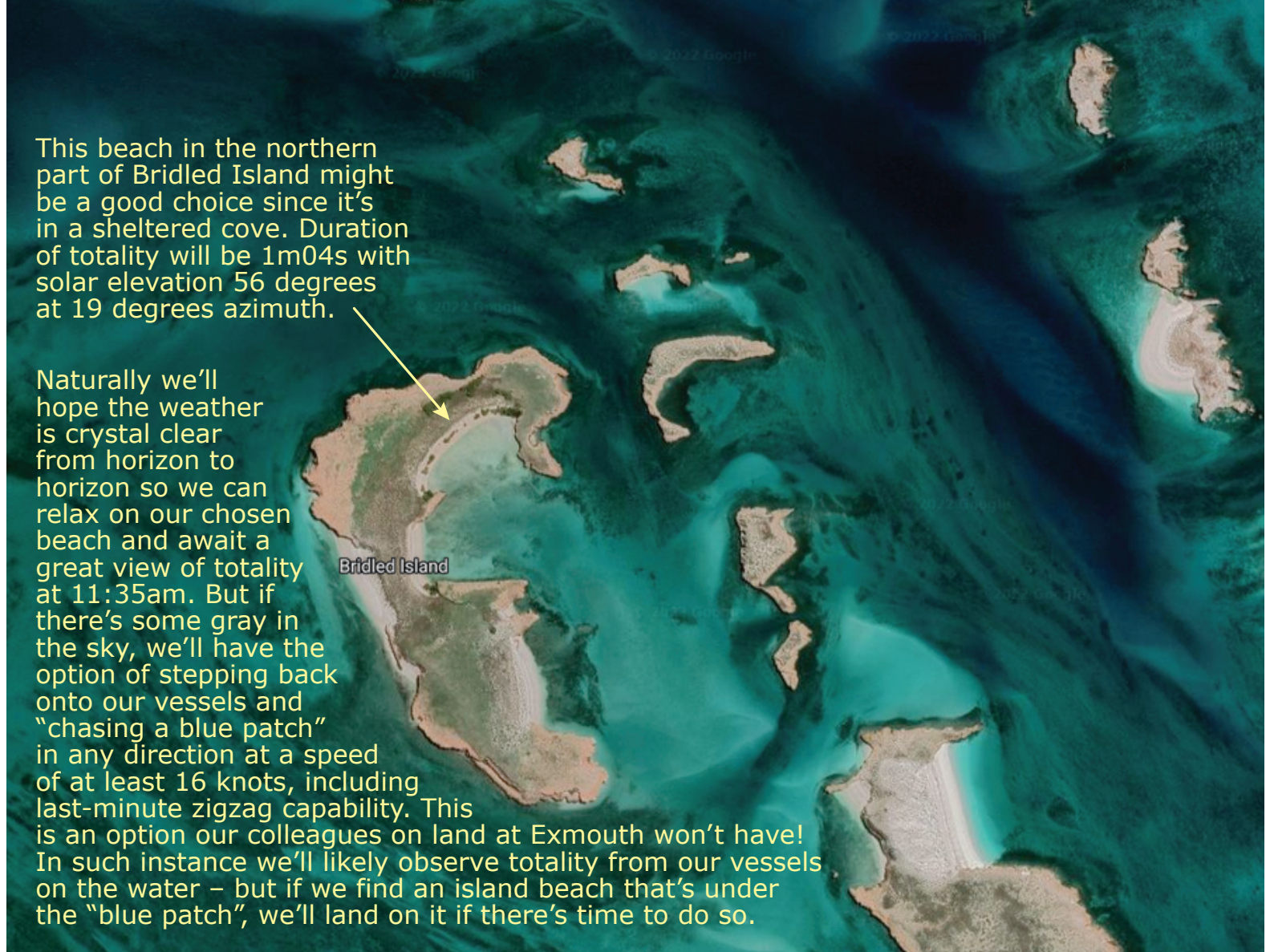


Upon arrival here in the Lowendal Islands we'll choose one beach from among more than a dozen available. We'll land on it by approx. 7am, using mini-boats we will have towed with us from Dampier to help in stepping ashore with our equipment. We'll begin setting up for the eclipse which will be taking place at 11:35am with just over one minute of totality.

For instance we might pick one of the four beaches on this island, Bridled Island.

Lowendal
Islands


Port of Varanus
industrial area
with oil tanks, etc.



This beach in the northern part of Bridled Island might be a good choice since it's in a sheltered cove. Duration of totality will be 1m04s with solar elevation 56 degrees at 19 degrees azimuth.

A satellite map of the Dampier Archipelago in Western Australia. The map shows several islands and peninsulas. A yellow arrow points from the text to a small, crescent-shaped beach on the northern coast of Bridled Island. The water is a deep blue, and the land is a mix of brown and green.

Naturally we'll hope the weather is crystal clear from horizon to horizon so we can relax on our chosen beach and await a great view of totality at 11:35am. But if there's some gray in the sky, we'll have the option of stepping back onto our vessels and "chasing a blue patch" in any direction at a speed of at least 16 knots, including last-minute zigzag capability. This is an option our colleagues on land at Exmouth won't have! In such instance we'll likely observe totality from our vessels on the water – but if we find an island beach that's under the "blue patch", we'll land on it if there's time to do so.



On April 19 Wednesday, the day before eclipse day, we'll do a 3-hour "practice run" in the morning roundtrip from Dampier to Enderby Island to test our landing skills on a beach there, and also so that we can all acquire some "sea legs" as preparation for our next day's adventure.

A satellite map of the Dampier Archipelago. A yellow line starts at Dampier on the Burrup Peninsula and extends westward to Enderby Island. The map shows various islands and peninsulas, including Dampier Archipelago, West Lewis Island, East Lewis Island, East Intercourse Island, West Intercourse Island, and Enderby Island. Other locations marked include Murujuga, Cowrie Cove, Hearson's Cove, Nickol Bay Speedway, and Karratha Airport.

Dampier is an important resource extraction hub and therefore has many vessels based right there, giving us a range of different boats to choose from. The nearby town of Karratha has an airport with regularly scheduled commercial flights from Perth seven days a week, flights that are much more numerous than from Perth to Exmouth. This means we'll have excellent access for getting into and out of the area.

Therefore our plan is to fly from Perth to Karratha and stay in hotel space at Dampier. We'll charter locally-based vessels to depart from Dampier approx. 3am on eclipse morning to get us to our selected viewing location on an island beach in the Lowendals, with the Montebellos as a backup. After our 1+ minutes of totality we'll head back to Dampier, arriving back there around 3pm, to a restaurant or our hotel to celebrate!

The vessels we pick from among the ones our provider will have available will depend on how many umbraphiles sign up with us for this plan. Two examples:



Jilly B

10 meters x 3.5 meters, 8 tons
595 horsepower, 25 knots
up to 12 passengers – we'll plan on 8 or 9



Loligo

22.6 meters x 8 meters, 88 tons
2896 horsepower, 22 knots
full galley, 2 toilets
up to 23 passengers – we'll plan on approx. 17