



Tidetechnology VAN DIEMEN'S LAND CIRCUMNAVIGATION CRUISE



Newsletter No.2

5th August 2023

VDL-C 2024 Has a New Sponsor:

After a decade of significant support, for which the RYCT and the VDL-C Organizing Committee are most grateful, Choices Flooring has bowed out as our 'naming sponsor'; however, an innovative organisation has stepped into the breach.

Tidetechnology Marine Data is a one-stop shop for accurate weather, wave and ocean information. More information as to what they are on about is available on their website: <https://www.tidetechnologymarinedata.com>. There is a short video that is worth a look on the ABOUT page of this website.

Tidetechnology's Managing Director Penny Haire (who came on the VDL-C 2019 Cruise) writes:

Tidetechnology information is obtained from data you can trust. Our scientists produce high-resolution tidal models and select the best performing meteorological and oceanographic third party datasets from official and academic sources in order to provide the most accurate data available for the marine industry in general, including the cruising and racing yachting fraternity.

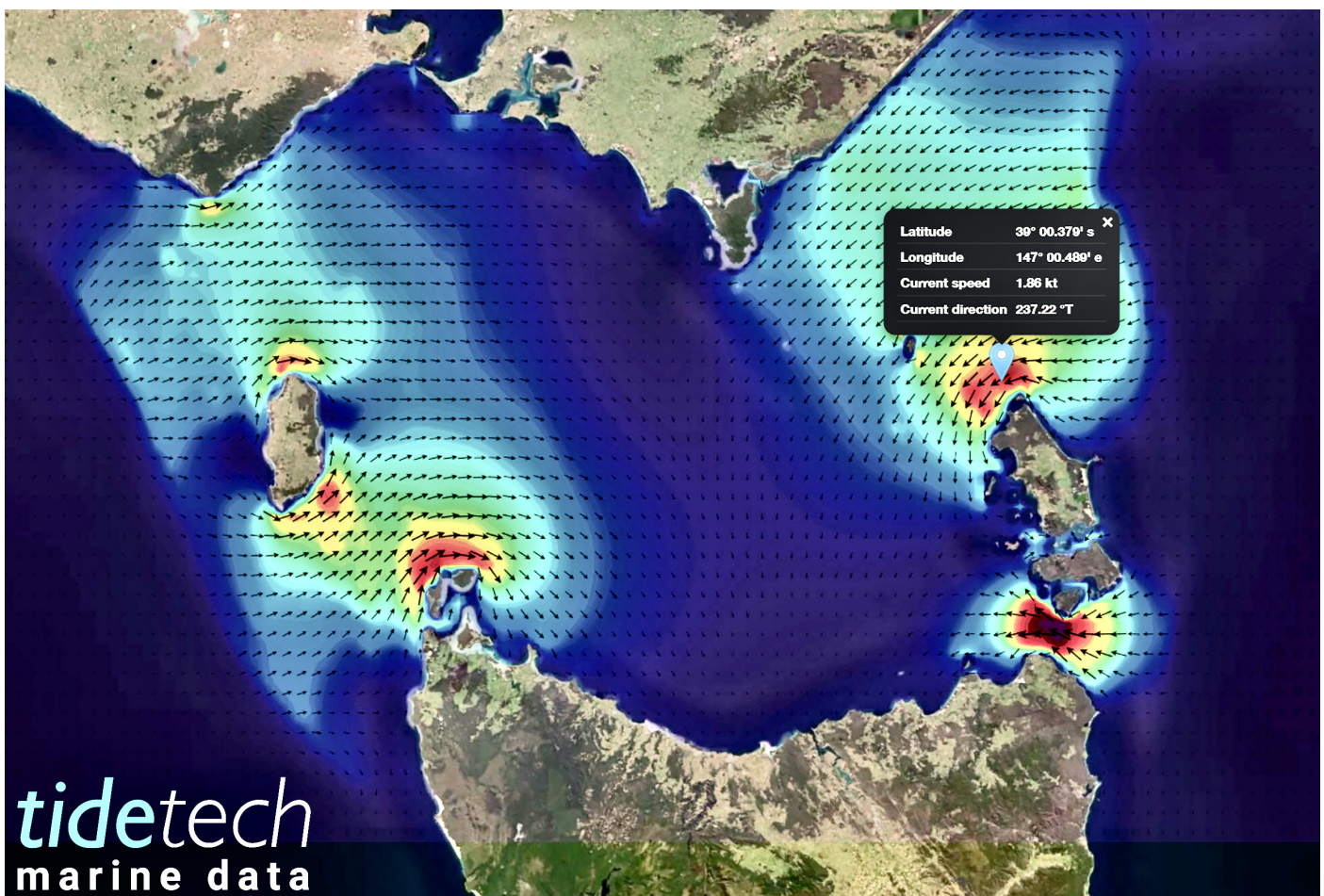
Why Tidetechnology?

There are plenty of services that provide weather data, but Tidetechnology is different. It provides high quality tidal current data, unavailable elsewhere. 2024 VDL-C Cruise participants will be able to view the currents, waves, weather, sea temperature and more in Tidemap, a web viewer being specially built for VDL-C 2024.

Made for Sailors

At Tidetechnology, our roots are in sailing and we are passionate participants and fans of the sport. We know from experience that obtaining accurate weather data is only part of the story when it comes to your navigational strategy in making a passage or competing in a race. Currents matter too – they are often overlooked, but can make a huge difference to the time it takes to get there or to the outcome of the race.

Tidetechnology is the leading supplier of oceanographic data to the elite yacht racing community, supplying competitors in the 36th America's Cup, The Ocean Race and Olympic Games, plus many more world class events such as the Sydney-Hobart, Hamilton Island Race Week, as well as the Fastnet and Newport-Bermuda races.



Tidal flows in Bass Strait for a flood tide

Topics Already Covered in VDL-C 2023 Newsletter No.1 (6th May 2023)

Taking Responsibility.

The Registration Queue.

Safety Requirements: Frequently Asked Questions:

- radio communications,
- insurance *Certificate of Currency*,
- no pets on board,
- a minimum of two experienced crew on board,
- bilge pumps,
- emergency steering,
- AIS

Cruise Documentation.

- the VDL-C 2024 website,
- The Cruise Manual,
- Tasmanian Anchorage Guide.

Transport, Fuel and Provisioning.

Crew Change Possibilities.

Berthing Arrangements.

Onshore Events and Happenings.

HF Radio Installation & Certification:

As stated in the VDL-C 2024 Safety Requirements, Section 5.07 (Marine Radios), and reiterated in Newsletter No.1, to be eligible to participate in *Tidetech* VDL-C 2024 Cruise, **participants must demonstrate they have an HF radio on board capable of using the cruise working frequency of 4483 kHz**. This demonstration is achieved by calling a radio station at least 100 nautical miles away. The demonstration can occur no earlier than Sunday 1st October 2023 and **must have been achieved no later than Monday 12th February 2024**, two days before the fleet is scheduled to leave Hobart. Please note that **failure to gain this certification renders your boat ineligible to join the cruise**.

Before calling, please ensure you have your AIS transponder switched ON, at least half an hour and preferably longer before you begin your HF transmission test. This will give the MarineTraffic.com website time to register your signal. As well as establishing from where you are transmitting, this will enable the certifying station operator to check you have a working AIS transponder.

The certification process will involve an assessment of both signal **strength** and **clarity**. To be acceptable, on a scale of 1 to 5 on the cruise working frequency of 4483 kHz, your radio must rate a performance level minimum of 2 for both, preferably much better. The certifying operator will record the ratings and whether or not your AIS is working.

HF Radio Certifying Shore Stations:

With the retirement of Mary Kay of Smithton Radio and the demise of Dover Radio, Tasmanian stations operating on HF maritime frequencies are becoming quite scarce. Boats located in places other than SE Tasmania can use Tas Maritime Radio for their certification demonstration. An alternative is an automated HAM HF receiving station located in the Adelaide Hills, South Australia. It can be operated remotely over the internet so it is not only useful for certification for the VDL-C cruise, but also it can enable you to test the effectiveness of your boat's HF radio transmissions in real time.

TAS MARITIME RADIO:

TMR is the last remaining maritime HF radio station in Tasmania. Their main HF transceiver is on North Bruny Is., some 12M S of Hobart with a back-up station on Snug Tiers above Margate on the opposite (mainland) side of D'Entrecasteaux Channel. Their website is www.tasmaritime.com.au and they can be contacted via ☎03 6231 2276 and email: ops@tasmaritime.com.au.

TMR is run by a collective of dedicated volunteers providing safety services for all Tasmanian mariners with the requisite radio equipment. It is supported by various government agencies. Its operating costs are covered largely by a membership subscription (at a paltry \$35.00 a year). TMR makes no distinction between call-ins and assistance given to members and non-members. Apart from helping with TMR's operating costs, this subscription enables TMR to hold information about you and your boat that will facilitate assistance being given in case of an emergency whereby details of you and your boat will be readily available to the TMR operator and through them to emergency services. For further details, their website is well worth a visit.

TMR maintains a continuous listening watch from 07:00 to 19:00 daily on its network of multi-channel VHF base stations covering almost all the Tasmanian coast, and on HF frequencies 4125 and 6215 kHz.

To initiate the HF certification process, call TMR on one of the above HF calling frequencies, explain who you are and what you want, and the duty operator will take you to 4483 kHz, maybe via their normal working frequency 4146 or 6227 kHz. It is a good idea to call by telephone and make a specific arrangement, but don't call at a TMR sched time when the operator will be busy running their normal weather and call-in sched. The sched will run for

approximately 30 minutes from 07:45, 13:45 and 17:33 each day on 4146 and 6227 kHz and VHF-67, 68, 69. At busy times they last longer. If you call in by radio during one of these scheds, the TMR operator will probably ask you to wait until the end of the sched before going to 4483 kHz.

THE IRONSTONE HF RECEIVER:

This receiver can be operated remotely via the internet.

Here is a recipe for using it:

- 1) Go to the website: <http://sdr.ironstonerange.com:8075/>
- 2) Click on the 'play' symbol to start the *OpenWebRX* app.
- 3) Set up reception using the control panel (in bottom right corner of the screen):
 - set frequency to **4483.00** (top left in the panel)
 - click the **USB** tab (to select **Upper SideBand** mode)



and press **enter/return**.

- 4) Use the converging or diverging arrows in the control panel to expand or contract what radio techs call 'the waterfall' to widen or condense the frequency span visible on your screen. The transmissions should appear as lighter streams among the noise speckles that make up most of the waterfall.

Normal HF radio caveats apply – whether or not transmission is audible will depend on the time of day and other influences on ionospheric conditions.

Notes:

1. This open-source app should work on most browsers; your indefatigable newsletter editor has used it successfully via *Firefox, Chrome, Safari* and *DuckDuckGo*.
2. There are several Australian receiving stations with this capability around mainland Australia; this one is relatively close (in the Adelaide Hills) and seems to have a particularly effective antenna.
3. It is unclear whether this station can deal with more than one transmission source simultaneously.
4. You can try out this app at home, by listening to one of the TMR scheds at 07:45, 13:45, or 17:33 on 4146 kHz or 6227 kHz. Bear in mind TMR are transmitting from a tall radio mast radiating 400 watts, listening for transmissions from a boat with less than 120 watts and with a more or less effective backstay antenna and a problematical power supply may be quite a different kettle of fish.

After the 1st October 2023, certification using the Ironstone receiver can be achieved by contacting one of the following members of the VDL-C 2024 Organizing Committee to arrange a time for a certification transmission.

Here are their phone numbers and email addresses:

| | | |
|---------------|---------------|--|
| Jeremy Firth | ☎0418 126 048 | Firthjeremy@gmail.com |
| Bill Newman | ☎0412 531 318 | maatsuyker@bigpond.com |
| David Meldrum | ☎0418 348 938 | dmeldrum@swp1.com.au |
| John Hall | ☎0429 313 211 | jhmelbourne@outlook.com |

Some Helpful Hints on HF Radio Installation:

If you currently do not have an HF radio on board, you are strongly advised not to leave its installation until the last minute. Installing a fully functional HF system is something of a dark art and is rarely achieved without at least one hiccup.

If you are having trouble achieving the requisite HF radio performance level, here are a some suggestions for improving the signal:

- Ensure all the cable connections (radio-to-tuner, tuner-to-antenna, tuner-to-earth) are in good order – making good contact, with no corrosion to inhibit electrical connection.
- The cable feeding the signal from the tuner to the antenna has to be unshielded (i.e. not coaxial) and thus should be separated as far as possible from anything that might act as even a partial earth. RF radiation wants to run along the surface of a metal-conducting medium (wire or a copper strip).

This means:

- the tuner should be as close as is practicable to the antenna so the unshielded cable feed is as short as possible, thus minimising radiation leakage before it reaches the antenna;
- if the tuner is below deck, it should have a properly designed through-deck fitting insulating the antenna feed;
- if your antenna is an insulated backstay, spacers should separate the cable feed from the backstay below the insulator by at least 100 mm (and as far as possible be located at least that far from anything else).

- Check there is an effective earth connection from the tuner to the sea outside the hull. This is as important as unshielded cable separation on the antenna side of the tuner. If the earth strap is connected to a through-hull fitting or to a keel bolt, be sure to check the contact has not become corroded or too oily (particularly if it is in the bilge). A properly designed and weed-free earth-plate on the outside of the hull below the waterline is strongly advised for all nonmetallic hulls, especially for those where the metallic ballast of the keel is encased in plastic.
- To check the effectiveness of your installation, rather than transmitting from a marina berth surrounded by aluminium masts, steel shrouds and many electrically noisy devices that are unlikely to do justice to your transmission's strength or clarity, it is better to conduct your HF certification transmission in open water. Even though HF radio waves from your antenna will bounce off the ionosphere in most directions on their way to their destination, if your antenna is the backstay it is a good idea to point the stern of the boat in the general direction of the receiving station.
A transmission on 4 MHz across Bass Strait from Hobart to Adelaide, or from other places on mainland Australia's E coast to Bruny Is. (S of Hobart), is most likely to get through early in the morning or late in the day.
- If you have any doubts about the strength of the ship's battery to supply sufficient RF transmission power, try transmitting with the engine running so that you are drawing power from its alternator, rather than a battery. It may sound noisy to you, but not necessarily to the receiving station.

VHF Radios

Although there is no formal certification requirement for VHF radios for this cruise, participants would be well-advised to check their VHF radio is operating satisfactorily. Participants will find not having a reliable VHF transceiver is considerably inconvenient, if not dangerous.

On past cruises, emergent VHF problems have included:

- corroded or otherwise faulty antenna connections,
- a faulty antenna,
- a faulty microphone – that has got wet or has otherwise been mistreated (microphones do not like being dropped or banged against anything hard),
- an incompatible microphone – having found a microphone is faulty, someone else's has been borrowed or a new one purchased that is designed for use with a different model of radio, perhaps with an incompatible impedance rating.

Ensure your VHF radio is set to use 'international' frequencies. Among a VHF radio's settings, this is often denoted as 'I' or 'INT' or sometimes 'AUS'.

Cruise Safety – Change in Pyrotechnic Requirements

From July 2023, Marine and Safety Tasmania (MAST) requires only the two parachute rocket flares, providing the others have been replaced with an Electronic Visual Distress Signal (EVDS) device. In this regard, version 15 of the Safety Requirements now on the website has an additional note so section 6.17 reads as follows:

6.17 Pyrotechnics (flares)

The following flares approved to AS2092 and within their expiry date and stored in a waterproof container shall be carried. As a minimum there should be:

- 2 x parachute rocket flares
- 2 x red hand flares
- 2 x orange smoke flares

Note the red hand and orange smoke flares can be replaced by an approved Electronic Visual Distress Signal (EVDS) device.

Note also this is the requirement of MAST. Australian Sailing requires more flares for vessels racing in Categories 1–3.

There is no mandatory requirement to jettison redundant flares until their expiry date. A more complete explanation of the use of EVDS devices, including the list of MAST-approved products, can be found on the MAST website: <https://mast.tas.gov.au/safe-boating/safety-equipment/electronic-visual-distress-signals-evds/>.

A short explanatory video is also worth watching: <https://www.youtube.com/watch?v=0yy-F59J0Gs> (the '0's are zeroes not the letter 'O').

Paper Charts

For safety reasons, it is recommended that boats have a set of paper charts covering the Tasmanian coast as well as electronic versions. Paper is a lot easier to dry out than an electronic device. As well as the paper charts themselves you will need navigational tools including a fine-tipped pencil (propelling with a 2B lead is a good choice), an eraser, dividers and a parallel ruler or equivalent.

The following is a list of navigational charts useful for Bass Strait and the Tasmanian coast. The full up-to-date list of charts available for the Australian region can be found at: <http://www.hydro.gov.au/webapps/jsp/charts/chartlist.jsp>. In the list below, an asterisk next to the chart number indicates a new edition has recently been published.

'Big-picture' charts for a perspective on the whole cruise are:

4644 (2010-09-24) *Southern Ocean - Cape Otway to Cape Howe including Tasmania*

487 (2005-01-07) *Bass Strait*

The following AUS charts are essential unless otherwise indicated:

167* (2020-01-24) *Port Dalrymple includes Bell Bay (Edition 2)*

171* (2021-07-23) *Hobart to Norfolk Bay (Edition 2)*

173* (2021-07-23) *D'Entrecasteaux Channel (Edition 2)*

176 (2008-03-14) *Port Davey, inc. Bathurst Harbour, Bathurst Narrows & Entrance to Bathurst Channel (Edition 2)*

177* (2021-06-11) *Approaches to Macquarie Harbour (Edition 2)*

766 (2007-04-27) *Mistaken Cape to Wardlaws Point*

767 (2007-01-19) *Wardlaws Point to Eddystone Point*

790 (2004-11-12) *Stokes Point to Rocky Cape*

791 (2004-11-12) *West Point to Granville Harbour*

792 (2008-07-18) *Trial Harbour to Low Rocky Point*

793 (2008-07-18) *Low Rocky Point to South West Cape*

794 (2008-08-01) *South West Cape to South East Cape*

796 (2008-08-29) *Tasman Head to Cape Frederick Henry*

798 (2003-02-21) *Eddystone Point to Stony Head (Edition 2)*

799 (1996-06-14) *Stony Head to Rocky Cape*

Additional charts for the Geelong fleet:

143* (2021-05-28) *Port Phillip includes Patterson River, Blairgowrie, Mornington, Queenscliff, Sorrento (Edition 7)*

144 (2014-06-20) *The Rip (Edition 2)*

The following charts are recommended:

164* (2023-07-07) *Approaches to Devonport inc. Ulverstone & Port of Devonport (Edition 4)*

168 (2002-10-04) *River Tamar: Long Reach to Launceston (out of print)*

179* (2023-02-17) *Plans in Tasmania (Sheet 1) inc. Franklin Sound, & Approaches to Grassy Harbour. (Edition 3)*

795 (2008-08-29) *South Cape to Storm Bay*

797 (2008-06-06) *Tasman Island to Mistaken Cape*

800* (2023-06-09) *Furneaux Group (Edition 4)*

Additional recommended charts for the Geelong fleet:

789 (2003-05-16) *King Island (out of print)*

802* (2020-08-21) *Cape Liptrap to Kent Group. (Edition 2)*

Cruising Guides:

- *Tasmanian Anchorage Guide*, 6th Edition – will be available gratis to VDL-C participants in their cruise satchel at the beginning of the cruise. Boats travelling to Hobart to join the cruise can obtain a copy earlier by contacting the RYCT office in Hobart.
- *Cruising Southern Tasmania*, 5th Edition (February 2020) – from Wineglass Bay to Port Davey. Published by TASMAR in conjunction with the Cruising YC of Tasmania.
- *Cruising North East Tasmania*, – a guide to anchorages and waterways from Wineglass Bay to Port Dalrymple, including the Furneaux, Kent, and Hogan Groups. Published by the Cruising YC of Tasmania (2017).
- MAST Boating Guides:
 - *South East Boating Guide*.
 - *East Coast Boating Guide*.
 - *Tamar River Guide*.
- *Cruising Tasmania 2nd Edition* by John Brettingham-Moore. This guide has been around for many years and may be out of print, but it is still a useful adjunct to more modern publications.
- *The Shank Returns: A Rutter for Tasmania's South West Coast*. Ian Johnston. This is the 3rd version of this magnificent pictorial commentary on the south and south-west coasts of Tasmania. Many of the interesting and beautiful nooks and crannies described and photographed by the author are anchorages in the most general sense of that word that can be visited only in the very best of weather and sea conditions. (In case you are wondering, one of the definitions of 'rutter' is: *a pilot book or seaman's guide carried by navigators in the Middle Ages – a precursor to the modern navigation chart*. According to the Oxford English Dictionary the archaic spelling is 'ruttier' derived from the french 'routier' with an 'i'.)

Anchoring & Berthing

Located as they are in the roaring forties, Tasmanian anchorages can be subject to sudden, more or less violent changes in the weather. Cruise participants are strongly advised to have at least two substantial, reliable anchors. The anchor size advised for its type and for the weight of the boat should be regarded as a minimum requirement.

The primary anchor warp should be all chain and at least 50 metres long.

It is desirable to have a workable system for reinforcing the holding power of your usual anchor. One oft-used procedure is to slide a substantial weight down the chain to keep as much as possible of the anchor end of the chain catenary on or close to the bottom in stronger winds.

Another method is to attach a second anchor with around 2 metres of chain to the head of the first anchor. Then attach a light line loosely from the shackle on the shank of the second (leading) anchor to the chain just above the first anchor to make it easy to set and retrieve the second (leading) anchor from below the first anchor that is at the bow roller. Expert opinion has it that such an arrangement has greater holding power than sliding the weight down the chain.

If you do devise such a system, make sure it works before you have to deploy it under battle conditions.

In some of the ports where visits are scheduled, boats will be moored to piles or jetties where there can be some surge. It is essential that each boat has an adequate fender-board. Such a board can be placed between fenders and a jetty pile. It is advisable that the fenders located between the board and the hull are close together, else there is a risk of any surge breaking even the strongest fender-board.

A minimum recommended size for such a fender-board is 120 mm x 40 mm and 2 metres long with a hole at each end for the ropes to hang it from the rail. The heavier the boat, the more substantial this board needs to be. Oregon pine or seasoned eucalyptus are good woods to use. It is better to have one as a part of the ship's inventory before embarking on the cruise. It is not always easy to find one at short notice.

--- 000 ---

