

Astrolabe Reef / Otaiti

Guidelines for Safe & Responsible Boating & Diving

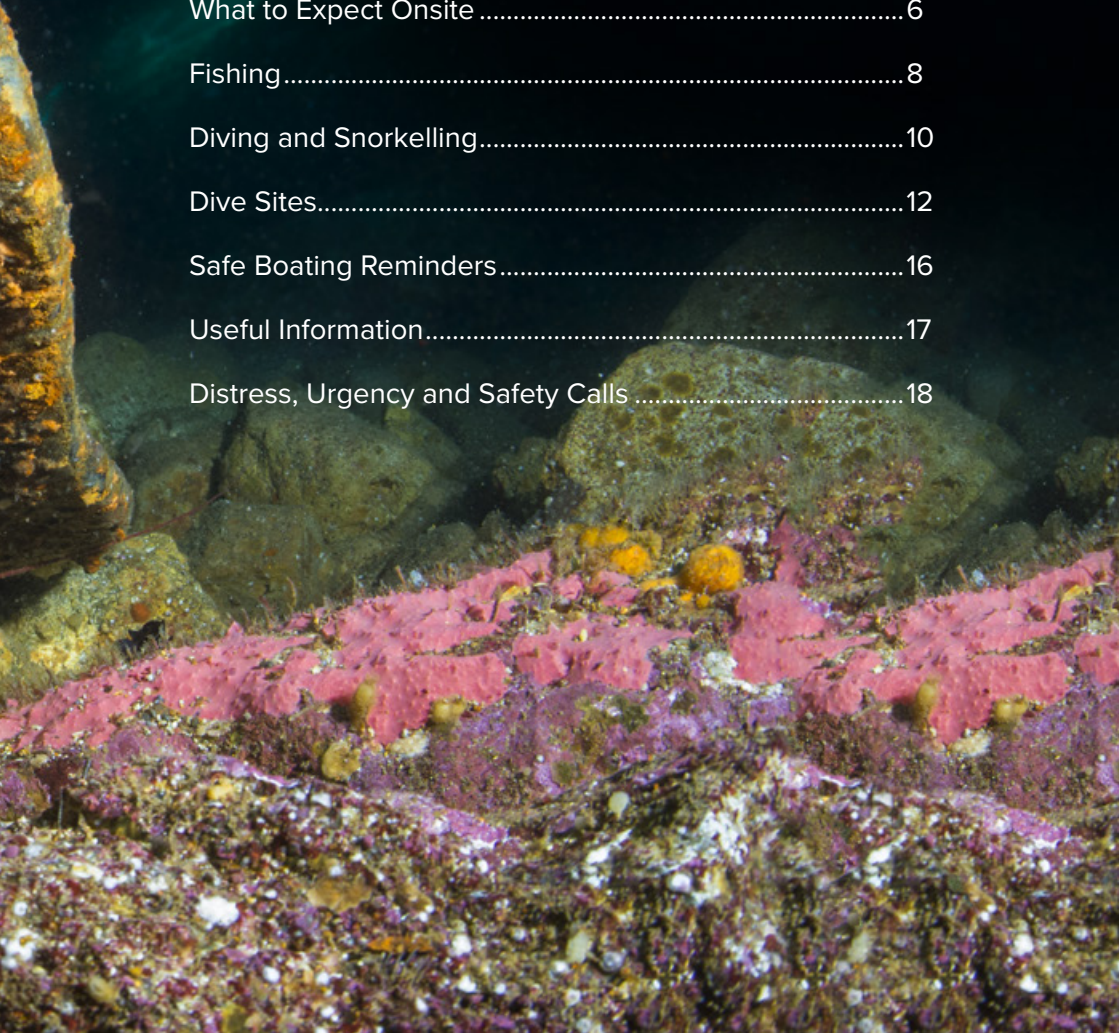


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Overview

In 2016 public access to Astrolabe Reef / Otaiti will be restored for vessels under 500 tonnes* by the Bay of Plenty Harbour Master. This is after more than four and a half years of salvage and cleanup operations following the grounding of the MV Rena in October 2011. There will be many visitors to the Reef including competing interests, both commercially and recreationally, from people interested to fish and dive in what is a relatively small, dynamic area of open ocean.

Visitors to the Reef should familiarise themselves with the following guidelines to help plan for a safe trip. It is important for everyone to apply common sense and good boating practices, as well as be aware of the specific hazards at the Reef with the remains of the wreck on it. Further information, including videos and ongoing information updates about accessing the Reef, can be found at www.astrolabereef.co.nz.

The information in this booklet has been prepared with input from various groups with local experience and knowledge of boating, diving and general navigational safety relevant to the Reef and / or the wreckage of the Rena.

**A two Nautical Mile exclusion zone remains in place (at the time of publication, April 2016) for any vessels larger than 500 tonnes, and is monitored by the Bay of Plenty Harbour Master.*

Planning a Trip

Astrolabe Reef is 12 Nautical Miles or 22 kilometres from the entrance of Tauranga Harbour. It takes just under an hour to reach the Reef, depending on conditions and boat size / speed. **GPS Coordinates for Astrolabe Reef are 37° 32.439' south and 176° 25.692' east.**

For safe boating, skippers should know the forecast and follow safe boating practices at all times. Boats less than 5m in length are not encouraged to visit the Reef for safety reasons. Further safety information can be found on page 16 and marine broadcasts and other useful information can be found on page 17.

If you haven't visited Astrolabe Reef before, it is strongly recommended that you speak with one of the local fishing, boating or dive retailers or clubs as part of your planning, or join an organised trip so you are in good company (a list of links can be found at www.astrolabereef.co.nz).

For people intending to dive, it is important to understand that Astrolabe Reef is a technical, open ocean site with depths beyond recreational diving limits. Information on the two suggested dive sites can be found on pages 10-15.

Maketu Coastguard (vessel – Reef Watch) will be the onsite advisor at the Reef, when conditions allow, during the initial opening stage. The onsite advisor can provide information, monitor activities and assist visitors as needed.

What to Expect Onsite

There are a number of potential and significant hazards that visitors to the area should be aware of.

Large numbers of vessels are likely to be visiting the Reef, particularly during the warmer months, weekends and public holidays. Skippers should always look out for surrounding boats, the Reef and also the likely presence of divers and snorkelers in the water.

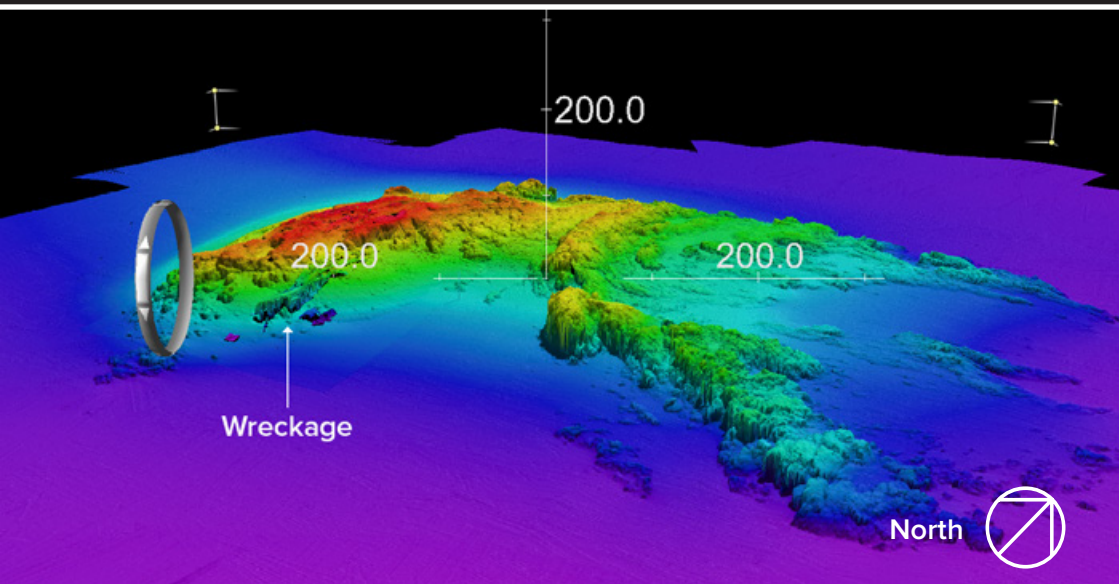
The tip of the Reef is a rocky pinnacle which rises up 75m from the surrounding seabed, breaking from the surface at low tide (see photo opposite). The Reef has varied underwater topography including gullies, plunging walls, shelves, caverns and caves. The Reef is regularly subjected to a prevailing strong northerly swell, currents are unpredictable, and wind conditions can be strong and change rapidly (particularly the prevailing west and southwest winds).

Wreckage Locations

- The main section of remaining bow structure lies east to west near the peak of the Reef, at a minimum depth of -1m (LAT). Dive Site 2, trail 2C loops around its perimeter. The closest reference point onsite is the Dive Site 2 orange mooring buoy.
- The separated bow pieces (including bow thruster) lie on the southern side of the reef. Their approximate location is marked onsite by the Dive Site 1 orange mooring buoy.
- The stern section lies on the eastern side of the Reef, and is marked onsite at either end by two yellow buoys. Due to its depth diving the stern is NOT recommended.



(Above) The tip of Astrolabe Reef breaking the water's surface



(Above) This underwater survey graphic shows Astrolabe Reef and the location of the wreckage, occupying approximately 2% of the total Reef area (as at March 2015)

Fishing

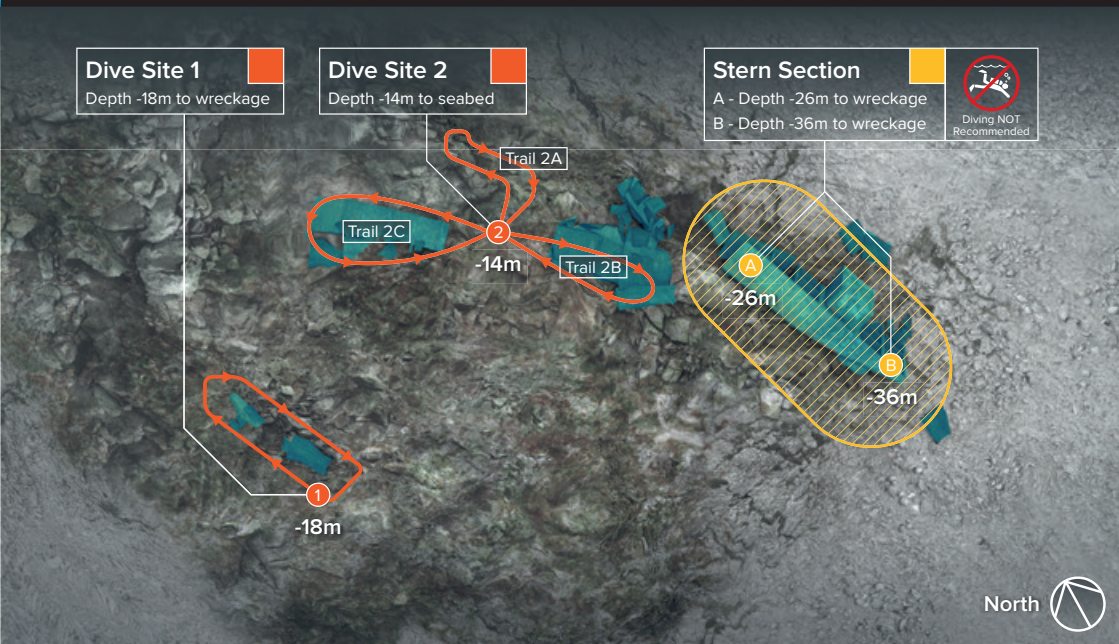
The wreck no longer poses a risk to navigation, however along with the rocky structure of the Reef, it does pose a potential snagging hazard for anchors and fishing lines. Be aware of your position relative to the Reef at all times.

Two orange and two yellow buoys have been set up to indicate the position and depths of the Rena's stern and remaining bow sections, including two dive sites. **The stern section is marked by the yellow buoys** and the **two dive sites are marked by the orange buoys**.

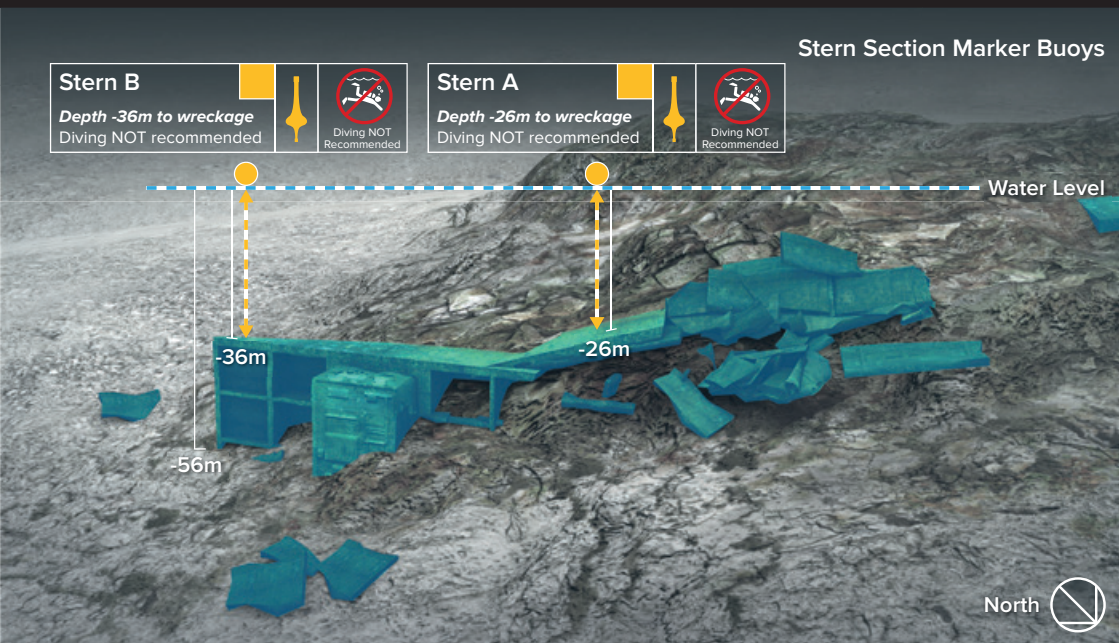
A voluntary dive zone extends 200m around the buoys. Onsite, skippers must keep a vigilant watch for divers in the water and remember not to exceed 5 knots in this area and within 50m of any other vessel and within 200m of boats flying an A Flag.

Most skippers don't, but anchoring is strongly not advised around the Reef; and line fishing or trolling within the dive zone is not recommended.

A request for a 2-year temporary closure to the take of all fisheries resources on Astrolabe Reef had been made at the time this booklet was published. For more information about this please visit the Ministry for Primary Industries (MPI) website.



(Above) This underwater survey graphic shows the location of the wreck, including the three main parts of the remaining bow section and the stern section



(Above) Stern Section

Diving and Snorkelling

Diving the wreck's stern section, marked with yellow buoys, is NOT recommended due to the depths at that location, except for qualified PADI technical divers.

Astrolabe Reef has always been regarded as an advanced dive site, therefore divers wanting to inspect the wreck site are encouraged to dive sites 1 and 2 only – marked by the orange buoys.


It is also strongly recommended that people wanting to dive do so with a local dive club or dive charter operator.

Do NOT attempt to dive the wreck unless you have the right experience, training, equipment and fitness. Divers should hold, as a minimum, a PADI Open Water certificate and be suitably experienced for an advanced dive site like Astrolabe Reef.

Skippers can moor at the orange mooring buoys while divers are in the water. If all moorings are occupied, then vessels can either 'raft' to other vessels in appropriate conditions or wait until a moored vessel has moved off. If the Reef is particularly busy consider returning later or even another day.



Dive Site 1: Separated bow section



Diving is an inherently risky activity and wreck diving has a number of specific risks to be aware of. It is important that divers follow these recommendations:

- Divers are encouraged to dive the two dive sites marked with orange buoys (see information on pages 12-15).
- Ensure your boat is flying an A Flag (dive flag) and stay within 200m of the flag.
- All divers must carry a whistle, inflatable safety sausage or similar device to alert your skipper to your whereabouts on the water's surface.
- Due to the strong currents, plan to be collected by the skipper immediately following your ascent and hold onto the float line while waiting.
- Always dive with a buddy and adhere to safe diving practices, including planning your dive and diving your plan.
- Check the currents, including their strength, before entering the water. Anything greater than 1m in swell, 1 knot of current and / or 15 knots wind is considered unsafe for diving.
- Water temperatures generally range from 20-22° in summer and 12-13° in winter. Due to water clarity and the gradual incline of wreckage, judging depths can be difficult. Take care not to exceed your safe depth.
- Be aware of potential snagging obstacles and always carry a knife.
- Do NOT remove cargo or objects – some may be heavy and compromise your ability to resurface safely.
- Safety stops at -5m have been marked on each buoy line – these should be used for your ascent but not relied upon.
- Snorkelers should have an A Flag attached at all times.

Dive Sites

The two dive sites are marked with **orange mooring buoys**.

Having two dive sites will help lessen congestion so that fishers and other users will be aware of the likely presence of divers in this area.

Visit www.astrolabereef.co.nz for further information on the dive trails.

Dive Site 1

This site is marked by an **orange mooring buoy** at the outer bow piece, with the label '**Dive Site 1 -18m**'.

It is an advanced dive site due to depth, but is in an area subject to less surge as it is in a sheltered section of the Reef.

Divers can explore the separated bow pieces (including the bow thruster) by descending at the buoy down the shotline. Head northeast following the wreck pieces along to the next piece, with the Reef wall on your right-side. Here you can explore the marine environment in the natural gullies, then return to ascend the same buoy.

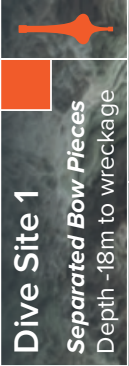
A safety stop marker at -5m on the buoy's shotline should assist divers with their ascent, but it should not be relied upon.

Dive Site 1

Dive Site 1

Separated Bow Pieces

Depth -18m to wreckage



North



Wreck Site

Dive Site 2

This site is identified by an **orange mooring buoy** with the label '**Dive Site 2 -14m**'. Due to its location near the peak of the Reef, it is in an area subject to surge that divers should be aware of. The dive is set into three loops, with each trail beginning and ending at the shotline. Divers are encouraged to follow the order of trail 2A (deepest first), then trail 2B and finally 2C. Please note that you may not be able to complete all three trails in one dive.

Trail 2A 'The Wall': From the shotline follow the topography on a decline with the Reef wall on your left side until you come upon a piece of wreckage (not illustrated in the Dive Site 2 image). From here, return on the open side of the wreckage and loop back with the Reef wall on your right to the shotline.

Trail 2B 'Double Bottom': From the shotline head south as the depth drops down into a bowl. Ignoring the topography, swim at a depth no more than -18m until you come across the double hull section which is laying against the southern face of the Reef. There are many crevasses to explore within the Reef structure. At the double bottom hull section, traverse the wreckage and head north towards the shotline.

Trail 2C 'Bow Structure': From the shotline head northwest following the topography upwards with the Reef wall on your right. Rising up the Reef you will eventually see the section of bow structure. Subject to conditions, aim to swim around the structure in an anticlockwise rotation (keeping the wreckage on your left), before following the topography back down toward the shotline.

The shotline is marked at -5m to help divers conduct their recommended safety stops.

Dive Site 2

Dive Site 2
Depth -14m to seabed



Safe Boating Reminders

- Always check the marine forecast before setting out.
- Vessels less than 5m in length are not encouraged to visit Astrolabe Reef due to the conditions being unsuitable for small boats.
- All vessels should carry a 406MHz EPIRB (Emergency Position Indicating Radio Beacon).
- Ensure you have enough life jackets / flotation devices of the right size for everyone on board. Wear your life jackets at all times.
- Inform someone onshore of your trip, including your return time.
- Skippers can report trips to the Coastguard on Channel 83.
- Boats with divers in the water must fly an A Flag (diver's flag). This must be 600x600mm minimum in size and divers must remain within 200m of this dive flag.
- No person shall propel or navigate a vessel (including a vessel towing a person or an object) at a speed exceeding 5 knots:
 - Within 50m of another vessel, raft, floating structure, or person in the water; or
 - Within 200m of any vessel or floating structure that is flying an A Flag of the International Code of Signals (diver's flag).



Useful Information

Hourly Marine Forecasts

- VHF Channel 83 – Coastguard broadcasts hourly marine forecasts.
- SeaComs channels 3 and 24 are used by many local skippers.
- VHF Channel 6 is also used by local skippers.

Maritime Distress and Emergency Calls

- VHF Channel 16 is the international channel for maritime disasters and hailing (calling).
- Dial 111 in the case of an emergency.

Online Notices to Mariners for the Area

- www.linz.govt.nz/sea/maritime-safety/notices-mariners

Harbour Master Contact Details

- Phone 0800 884 880 or call the duty officer on 07 928 3385.
- www.boprc.govt.nz/HarbourMaster

Updates About Safe Access at Astrolabe Reef

- www.astrolabereef.co.nz

Onsite Monitoring

- Maketu Coastguard (vessel – Reef Watch) will be the onsite advisor at the Reef, when conditions allow, during the initial opening stage. The advisor can provide information, monitor activities and assist visitors as needed.

Distress, Urgency and Safety Calls

Special calls are used in distress, urgency and safety, and must be properly understood and used correctly.

Use VHF Channel 16 to make a call.

DISTRESS: the radio-telephone distress signal **MAYDAY** is used to indicate that a vessel, aircraft or person is in grave and imminent danger and requires immediate assistance.

URGENCY: the radio-telephone urgency signal **PAN PAN** is used to indicate that a vessel has a very urgent message to transmit about its safety.

SAFETY: the radio-telephone safety signal **SÉCURITÉ** (pronounced say-cure-ee-tay) is used to indicate that the calling station has an important navigational or meteorological warning to transmit.

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