

## Reef VTS and the Great Barrier Reef July 2019

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It might seem odd that a Scottish publisher has written a Passage Planning Guide for the Great Barrier Reef and Torres Strait. You might even be wondering what we think we can tell the Australians about their territory? Well, not a great deal really....but read on!

In the finest tradition of the Witherbys' Passage Planning Guides, I've been sent to Australia to listen to the local experts. This isn't a guide written from the office, either in Australia or Edinburgh. We get on the ground, onto the ships and we find the people who really know what they are talking about. My job for Witherbys is to listen to what the experts have to say and report that back to the wider shipping community, who might one day pass through these critical waters.

Any sensitive sea area like the Great Barrier Reef is managed by a complex layering of government agencies, commercial shipping companies, international relationships and cultural ties. However, the Great Barrier Reef is distinguished by its vast size and its ecological importance. The reef is 1.5 times as large as the British Isles and is home to 6000 unique species of Flora and Fauna. Visited by tourists, divers, scientists and researchers from all over the world, the reef is thought to be 8000 years old (in its current form) and is the only living thing visible from space.

These unique facts are not lost on the locals. They protect their reef proudly and with their every action. You will even see drains in the streets of the city of Townsville marked 'This Drains to the Great Barrier Reef', so that people will avoid inadvertently pouring oil or contaminants into the sea. This is an impressive community spirit for a blue-collar mining and Army town. The port is a key regional hub, exporting minerals and aggregate and importing cars and other products for the community.

Townsville is the first stop on my field trip. I'm here to survey the navigational practices on the Great Barrier Reef and one important part of that is the REEFVTS. REEFVTS is the largest coastal VTS on Earth, providing a Navigation Advisory Service to commercial shipping from the Torres Strait to Bundaberg.

Mariners like myself are quite used to the concept of a VTS, or Vessel Traffic Service. We often explain it to laymen as 'like Air Traffic Control for the sea'. However, unlike Air Traffic Control, VTS often do not have the legal authority to order a ship's course of action. Normally they are a humble affair, providing traffic information to a port or a coastal Traffic Separation Scheme (TSS).

At first sight, the REEFVTS appears to be similarly humble. I had arranged to meet with the REEFVTS manager, Tony Melrose, several weeks prior. Arriving the day before our meeting, I was surprised to find that REEFVTS is not marked on any online mapping service. When I followed directions to their building, I found it was just one of a series of non-descript government buildings in the harbour, virtually unmarked, apart from a very large radio mast on the waterfront.



'How ya goin' Scott?', came the traditional Australian greeting. 'Come on in'.

For the largest coastal VTS in the world, it seemed pretty standard. Small even. A large wall of screens showing Raster charts of the reef, overlaid with ships' AIS transponders. A weather forecast and a rain radar. Lots of ships' information on computers. Some radios and telephones. And, 2 VTS operators and their manager running the whole show. One for the port, and one for the reef.

'Usually there are about 50 commercial ships passing through the reef', Tony informs me. 'Any more than that and I'll put on extra VTS operators. They have a team of 14, including some part-time operators known as 'casuals'.

The team seemed far from casual. Focused on the job. Knowledgeable about every part of the reef and the Marine Spatial Planning zones. Using formal radio communication phrases to speak to internationally trading ships. Restrained in their speech, calm in their demeanour and confident in their profession. Accompanied by the gentle teasing and criticism found amongst ships' crews, sports teams and military units the world over. I liked them immediately.

The operators took turns to leave the room and get their Flu jabs. A strange thing for a Scottish person to observe when it is 32° C outside. The guys tell me they take their 'summer' vacations to the Northern Hemisphere. To places like Moscow and Scotland, when it is winter there and -18°C, just to escape the relentless heat of Queensland for a time.

'We've only got one ex-seafarer here', says Tony. 'A lot of our guys are ex-military. So long as they have a Marine VHF licence, and the temperament to stay calm on the radio in a high-pressure situation, that's good enough for us to work with. We then put them through an IALA accredited VTS training program'.

The VTS operators proudly tell me of situations when they have helped ships' bridge teams avert disaster, by providing Navigation Advice in good time. They discuss the causes of those situations in terms all too familiar to any seafarer. 'Misunderstanding of ECDIS Safety Contour', 'Human Element', Bridge Teams apparently relaxing after the pilot disembarks, navigational error, and so on.

Standard stuff, but the potential damage that could be done to the marine environment here in the Great Barrier Reef would be disproportionately serious. And that is why since 2004 REEFVTS has provided an essential additional safety net to commercial shipping. Tony Melrose and his team take this aspect of their job seriously. 'The world counts on us to help protect the Great Barrier Reef'



In the shipping industry these days, it seems every possible document is coated with the phrase ‘to protect the marine environment’. For my generation, it has almost become a parroted phrase. Well intentioned, but you hear it so much it becomes meaningless.

Not here. Not at REEFVTS. Maritime Safety Queensland, and the Australian Maritime Safety Authority take their responsibilities seriously. At the international level, the federal level, the state level and the port regional level, every aspect of Rescue Coordination, Medical Evacuations, Passenger Safety, Shipping Safety, Collision Prevention and even Animal Welfare is taken into account. They have drills, backup systems and procedures for evacuation – tested regularly. The evacuation process explained to me was put into action during the recent flooding of Townsville, with apparent success. Everything you would expect in the highest levels of modern transport management.

‘You didn’t ask the normal question’, Tony says. ‘What’s that?’, I reply. Tony informs me that most of his environmentally concerned visitors ask, ‘Why take the risk at all, why not just ban shipping from entering inside the Great Barrier Reef?’

As a seafarer, and as a Navigation Advisor to Witherbys, I knew the answer to this one. Nobody can anchor in 1400 metre depth of water outside the reef so if your ship breaks down outside, the risk of drifting onto the reef and grounding is unavoidable. In that situation there isn’t much you could do to prevent a really serious oil or cargo spill. “We’d far rather they pass inside the reef, because all ships can drop anchor there in an emergency, and that’s much safer”.

For me, that summed up what is unique about Australia and what is unique about REEFVTS. The actual work they do in assisting Bridge Teams and Masters in their waters is the same as many other places in the world. However, even with far less traffic density present in the Great Barrier Reef, the consequences of getting it wrong or failing to spot a situation in time are almost unimaginable.



My visit to REEFVTS was reassuring. I know about ships and traffic, so I wasn’t surprised by any of the details. However, the thing that really impressed me was the attitude of these Australian caretakers. Their vigilance was evident. Their knowledge of their territory was impressive. The fact that they take ownership and responsibility for everything that is in front of them was clear.

I hope to take some of that attitude with me and incorporate it into our products at Witherbys. We also take the safety of navigation seriously, so it is nice to see that our Guide to Passage Planning in the Great Barrier Reef and Torres Strait is adding to an excellent safety culture in the region.

I’m continuing my travels now, to shadow some pilots through the reef on some Merchant Ships, from Thursday Island down to Cairns. I hope to learn more about the challenges faced by pilots and Bridge Teams as they traverse this environmentally sensitive and challenging seaway. As I do so, I’ll be happy in the knowledge that REEFVTS are providing us with an overwatch. A vital, second pair of eyes, assisting pilots and Masters to get the job done safely.

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