

# New Zealand manufacturers gaining worldwide recognition

Given New Zealand’s geography — two main islands surrounded by about 600 smaller islands roughly 1,500 kilometres by sea to the next major country — it’s not surprising that New Zealand manufacturers are world leaders in terms of developing innovative products for the marine industry. Now, in collaboration with New Zealand Trade and Enterprise (NZTE), a spotlight is being shone on New Zealand manufacturers who have been expanding into international markets, including Canada and, more specifically, British Columbia.

As part of their mandate, NZTE assists NZ companies who are looking to grow beyond the domestic market. And it was to that end, that NZTE’s Head of Public Sector — Canada, Rod McDonald, invited a B.C. contingency to the New Orleans International Workboat Show this past November. In addition to a number of networking events, representatives from B.C. were given the opportunity to learn more about New Zealand’s marine manufacturing sector through one-on-one interviews with senior company representatives. Through the discussions, it becomes apparent very quickly that indeed, NZ’s marine technology sector is proving popular with mariners around the world.

Here then, are just a few examples of NZ companies of note breaking new ground in marine manufacturing and gaining worldwide recognition as a result.

## HamiltonJet

During a recent meeting with HamiltonJet representatives Tom Latham and Ace Backer, *BC Shipping News* learned that the company has launched a new model — the HTX-30 — with greatly enhanced features. As the next step in the evolution of waterjets, Tom Latham, General Manager for HamiltonJet’s Americas Region, explained that the HTX-30 was the culmination of extensive research and rigorous testing. “We have incorporated new hydrodynamics, combined with greater cathodic protection and a new gimbal steering system, to create a package offering improved performance, while also being highly reliable and easier to install,” Latham said.

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The HamiltonJet team (with Americas Region General Manager, Tom Latham, far right) was pleased to introduce their new HTX-30 model.

With regard to performance, the HTX-30 offers 19 per cent more bollard pull and seven per cent more high-speed efficiency. The improvement in bollard pull allows for a minimum speed improvement of up to two knots, while greater high-speed efficiency points to greater thrust and lower full burn. In fact, top speeds of 55 knots are possible, depending on hull form.

The HTX-30 is the first of a series of new products HamiltonJet has in the works. “We do have a progressive product development cycle in play right now and hope to have a number of exciting announcements in the next few years,” Latham said.

## Naiad Design Ltd.

Director John Cowan reported that the 40-year-old company who has developed an innovative design for rigid-hull inflatables (RIBs) has been seeing dramatic growth over the last seven or eight years. “We’re very different from regular inflatables,” he said. “In addition to the aluminum hull, the inflatable part of the RIBs is designed to

contribute to the stability of the vessel and has superior handling capabilities in rough weather. We have become very popular with police and patrol operations as well as navies and coast guards.”

One of the key differences with Naiad RIBs — the use of foam instead of air in the collars — was actually triggered by an incident during a weekend training exercise with police. “It was a Saturday night and the boats had been stored when someone broke in and slashed the fenders. That awakened the industry to the risks of inflatables. Now, virtually all of our patrol boats have foam instead of inflatable pontoons,” Cowan said, adding that Naiad still offers inflatables and an inflatable pontoon will absorb a bit more of the pounding in heavy seas but, with lower maintenance requirements (“the foam is basically indestructible and will last the life of the boat”), he’s seeing a definite trend toward foam collars.

Whether filled with air or foam, Naiad’s collars are removable and replaceable. “This is a must-have for military and professional



Naiad's rigid-hull inflatables use foam collars that are removable and replaceable, an innovation that is becoming popular with military and professional users.

users," Cowan said. "They could be at sea and in a remote location so if they need to replace the collar, they don't want to have to go back to base or require special tools."

Another difference with Naiad's boats is that each one is custom-built specifically to meet a customer's needs. Indeed, one of Naiad's tag lines is "high-performing boats customized to your requirements." Cowan highlighted the fact that customers will usually start with a standard design but make modifications based on their unique needs.

When asked about the choice of aluminum for the hull, Cowan noted that it was better suited for one-off builds versus fibreglass. He also emphasized that Naiad continues to put a big focus on hull shape development — so much so that they were one of the first to introduce a stepped hull which helps to break the friction of the water and provides for greater efficiencies. "It's like the foundation of a building — get the hull shape right and you've got the foundation for a successful boat," he said, adding that more recently, they have introduced a notched bow which carries the keel line further forward, resulting in an increased waterline length when in heavy seas.

Looking at the growth of the company, Cowan said that, in addition to Australia, New Zealand and China, they are seeing positive results in both the U.S. and Canadian markets. "We've steered away from the U.K. market because it's already

quite crowded," he said. "But we've been seeing great success in China, especially for pilot boats."

As for the future, Cowan noted that founder and owner Steve Schmidt loves innovation and is always looking for new ventures. "For example, we've just built three 30-passenger vessels with Sealegs wheels attached — this required a specially designed hull," he said, adding that there are additional plans for growth in this area, including an electric-hybrid version of Sealegs and a high-speed, high-end recreational boat that will be powered with electric energy storage systems. "We're at the concept stage on that but once the technology catches up, we already have interested customers."

### Oceanmax

According to National Sales Director James Maitland, the idea for Oceanmax's high-silicone-content coating for propellers was borne out of frustration. Owner Guy Jacobsen, a sport-fishing enthusiast, was tired of hauling his boat out to clean the propellers every time he wanted to go fishing. "He got together with a paint company and developed Propspeed — a foul-release system that stops barnacles from growing on underwater metal," said Maitland. Turns out, there were additional benefits as well. "More speed, less fuel," he said. "You pick up a knot or two and burn about three to five per cent less fuel."

Essentially, Jacobsen had figured out how to attach a high-silicone coating to metal. "The issue for any underwater metal is getting something to stick to it," said Rusty Morgan, Oceanmax's Technical and Sales Support rep. "The application process is the key to the success of the product — you start with bare metal, clean it with Propclean and then apply Propprep which is an acid etch which helps the primer adhere to the metal. Following two coats of Propprep, a clear silicone top coat is added and a chemical reaction occurs as it continues to dry and cure together," he said, adding that it's "like putting an M&M candy shell around all your metal. Nothing ever sticks to it because of how slick it is."

Propspeed is very different from traditional anti-foul coatings which will dissolve over time. "Because it's difficult to get them to attach to metal, they rub off quickly," said Maitland, adding that Propspeed is unique on the market despite attempts by others to duplicate its effectiveness. He also noted that there are all sorts of applications for Propspeed in addition to propellers: "Because it is an environmentally friendly product, we're seeing it used for other initiatives — for example, researchers are using it for shark tags."

While Propspeed will traditionally last one or two years before requiring an additional coat, Morgan emphasized that longevity will often depend on the type of water, the type of boat and frequency of use. "We were up in British Columbia last month checking on an application we did three years ago and it still looked brand new," he said, noting that B.C.'s water is much clearer than say, Florida, where the water is more shallow and harsh.

In addition to Propspeed, Oceanmax recently launched a new product — LightSpeed — the first transparent foul release coating for underwater lights. "Underwater lights can get all kinds of material and organisms growing on them," said Maitland. "Customers started using the clear silicone that comes in the Propspeed kit and applying it to underwater lights and it's worked really well. So we took it a step further and redesigned the coating to create a full system that adheres to the lens of the light to prohibit growth."

With no other product on the market that duplicates the success of Propspeed, Oceanmax's reputation as a superior foul release coating is, so far, unmatched. And

to add to that, Oceanmax is committed to providing support for shipyards using the product. “It’s not difficult to apply but it is particular and the better the application process, the more successful the results,” said Morgan.

Maitland estimated that Prospeed is now on 35 to 40 per cent of the propellers in Australia and New Zealand and sees great potential for markets in the U.S. and Canada. “We are on about five per cent of the vessels in the U.S. so there is a lot of room for growth. We distribute to 30 countries worldwide and continue to enjoy great partnerships with distributors, including Canada where we work with Western Marine Company and Land & Sea.”



Applying Oceanmax’s Prospeed will stop barnacles growing on underwater metal.

**The list continues...**

In addition to Hamiltonjet, Naiad and Oceanmax, other New Zealand manufacturers are equally gaining market share worldwide. For example:

- **Sealegs International Limited**, a part of the Future Mobility Solutions Group, is an icon of New Zealand’s innovative design and engineering capability. The unique design and technology transforms a Rigid Hull Inflatable Boats (RHIBs) into an amphibious boat. While much of the Canadian coastline is rugged, there is significant application in low bank, beach, and lake shore terrain for these amphibious craft. Sealegs can produce and sell both the complete amphibious boats (in Canada: Kelland Watercraft in Nanaimo, B.C.), or Sealegs can also work with independent boat builders to fit the amphibious system (AES) to boats of their own design (Sealegs International).
- **Vesper Marine Limited** was founded in 2007 to create innovative marine safety solutions. Recognizing the benefits of the AIS international standard, Vesper Marine focused on developing AIS solutions for the marine sector. Developing products from the ground up resulted in breakthrough technology and innovative products that have been internationally recognized. Since the first product launched in the U.S. in March 2008, Vesper Marine is now distributed to over 35 countries. In November 2010, the world’s first dedicated Class B AIS collision avoidance device was launched, followed by the first touchscreen AIS transponder in 2012. In 2011, leveraging

their expertise in AIS technology, the world’s first dedicated Virtual AIS Aid to Navigation device was developed by Vesper Marine (Virtual AIS Station). Since then customers all over the world have implemented the Virtual AIS Station. In 2013, Vesper Marine was the first company to add WiFi to AIS transponders to provide safety information wherever and whenever it was needed. In 2015, the Guardian Asset Protection service was launched into the USA with New York Power Authority and is now used worldwide to protect cables, pipelines and port infrastructure from vessel damage.

- **Electronic Navigation Limited** was founded in 1945 and has earned a solid reputation for genuine service, innovation and supply of quality marine electronic products worldwide. The WASSP multi-beam sounder technology enables seabed profiling at up to 100 times the speed of conventional single-beam echo-sounders, with improved accuracy and significantly reduced cost. WASSP multi-beam sonars accurately profile the water column and seafloor - highlighting reefs, wrecks, fish schools, seafloor hardness changes and foreign objects in the water column or on the seafloor. To further improve WASSP performance: GPS compass, roll / pitch & heading, and sound speed inputs can be interfaced to improve seafloor-profiling accuracy.
- **Hella Marine** provides advanced marine lighting solutions engineered for energy efficiency, safety and reliability. Founded in 1925 by HELLA in Lippstadt,

Germany, Hella Marine is now headquartered in Auckland, New Zealand. With decades of LED product design expertise, Hella Marine lamps are ‘Fit and Forget’ by design, offering complete piece of mind and enduring safety at sea. Through ongoing research and development, innovative design and use of high quality materials Hella Marine continues to set benchmarks for extremely reliable and highly efficient products.

- **Stabicraft Marine Limited** designs and manufactures aluminium boats with an ultra-stable, air-tight, chambered-hull design. The company’s boats range in size from four metres up to nine metres in length and sell into the recreational (boat dealers and marinas), commercial (fishing lodges, tourism operators) and government marine sectors (search & rescue, police, coast guard, and customs). Stabicraft has proven expertise in building safe and durable boats for use in tough conditions and its unique design allows occupants to move freely about the deck, providing stability even when all occupants stand on one side.
- The above is by no means an inclusive list. As a maritime nation, New Zealand has been at the forefront of developing state-of-the-art technology that has been borne out of a need to master rough seas and harsh conditions. A quick review of the New Zealand Marine Industry Association website shows close to 500 members and, while some are international in scope with recognizable brand names, there’s no doubt that New Zealand is a world centre of excellence for all things maritime. **BCSN**