



**ZODIAC
MILPRO**

FOR THOSE WHO WORK ON THE WATER.



ZODIAC MILPRO

HOSTS DELEGATES FROM AROUND THE WORLD FOR ITS 2017 VANCOUVER SEMINAR

The scenic vistas of the downtown Vancouver skyline and the Coastal Mountain Range of British Columbia served as a perfect backdrop for Zodiac Milpro's 2017 Seminar which hosted 130 representatives from government, military and law enforcement agencies from around the world. Delegates from far off countries like Italy, Argentina, Australia, New Zealand, Poland, Kazakhstan, Norway, Sri Lanka, Japan, Singapore, Brazil, Malaysia, USA, and countless others (26 countries in all) descended on Vancouver to participate in this special and rare event.

Regarded as the global leader of military and professional Rigid-Hull Inflatable Boats (RIB) and inflatables, Zodiac Milpro organized the Vancouver seminar to provide a hands-on sea-trial demonstration to showcase new boats and technologies which have been developed and optimized for diverse maritime applications which include naval support, search and rescue, border security, law enforcement and other special applications. In addition to the sea-trials, the seminar also included a Zodiac Milpro product awareness day, and the chance for key partners and suppliers of engines, consoles, sensors and the like to describe the latest innovations of their products as they relate to Zodiac Milpro boats. The seminar also allowed end-users, namely the Commandos Marine (French Navy Commandos), the Italian Navy, and the Niagara Police Department to deliver presentations about the Zodiac Milpro boats that they operate. The 2017 Seminar concluded with a guided tour of the Zodiac Hurricane Technologies manufacturing facility in Delta, British Columbia.

"The Zodiac Milpro boats we demonstrated set new benchmarks for performance and capability. The opportunity to have six different boats on the water at the same time allowed us a rare chance to sea-trial our platforms to delegates from around the world. The opportunity to demo each boat allowed the delegates to compare and contrast the solutions we have developed, each of which is optimized for exceptional performance and utility. The seminar also gives us invaluable insight on new trends and customer requirements which we use to continually evolve and optimize our products in order to stay on the leading edge of small boat technology," said Jean-Jacques

Arignon, President and General Manager of Zodiac Hurricane Technologies in Canada. "As a Canadian boat builder, we are very lucky to have strong partners like the Canadian Coast Guards and the Royal Canadian Navy, and we were thankful to use HMCS Discovery in downtown Vancouver as a staging point from which to deploy our boats during the demonstration days."

MACH 2 stepped-hull design technology delivers unparalleled performance

Marc Lavorata, CEO of Zodiac Milpro spoke of the resolve the company has in the design and delivery of cutting-edge platforms: "The Zodiac Milpro and Zodiac Hurricane brand names identify our reputation which is built upon our commitment to meeting the needs of military or civil customers anywhere in the world. We are extremely strong in the military segment and are number one in our niche market. Our boats and products are unmatched in capability, and that's because we have invested in technology which sets us apart from our competition. Operators like the French Navy Commandos recognize our capabilities and are using our platforms all around the world. The Vancouver Seminar helped showcased the latest results of our innovative process."

The reputation that Lavorata spoke about is, in part, the result of significant time and investment that Zodiac Milpro dedicates to research and development. That effort led to the adoption of the Military Air Channeled Hull (MACH) 2 which was developed by Michael Peters and licensed exclusively to Zodiac Hurricane. The patented MACH 2 stepped-hull (2 steps) has been designed to combine the handling, durability and practical benefits for which Zodiac Milpro RIBs are famous, and it comes as a package that sets new benchmarks for small boat performance.

Doug Hemphill is Technical Director for Zodiac Hurricane Technologies, and he spoke about the significance of this patented design: "Typically a stepped hull has been limited to race boats due to their unpredictable handling in certain conditions. The MACH 2 basically solves that problem with a channel in the aft planning



**ZODIAC
MILPRO**

©2017 ZODIAC HURRICANE TECHNOLOGIES INC.
7830 VANTAGE WAY, DELTA, BC, CANADA V4G 1A7 P: +1.604.940.2999



**ZODIAC
HURRICANE**

surface that essentially creates two keels in the aft part of the hull. The channels provide directional stability in all sea conditions with maneuverability that is better than a deep V-hull design. The dual stepped hull serves to significantly reduce water resistance, so it allows us to go faster with the same power, or we can fit smaller engines for the same performance. This can also translate into greater range or higher payload capacity. None of that could be done without a stepped hull. The stepped hull boats have enhanced turning capability, and these boats are very forgiving in terms of where you load weight. We've tested the boats in high sea states and speeds up to the high 60 knots range with no issues. The delegates at this year's seminar will certainly attest to the exceptional performance of all our boats."

Cutting-edge boats demonstrate significant capability

The six boats demonstrated during the Vancouver 2017 Seminar comprised approximately \$5 million in cutting edge new platforms.



"These boats are our newest top-drawer offerings. The market niche that we are focusing on, particularly with our MACH 2 technology, are high performance boats that can run a range of multi-missions and be available to meet a vast diversification of client specifications. Most of our clients have very specific ideas about their mission and the equipment they need to support that mission, so as such the trend we see is for a larger, more capable ship or shore-based platform that can handle a wide variety of missions," said John MacKillop, Canadian Sales and Marketing Manager for Zodiac Hurricane Technologies.

Seminar delegates had the opportunity to trial each boat in order to get a comprehensive understanding of the latest technologies embodied in each platform. These platforms are concisely described below:

The **Zodiac Hurricane 940 MACH 2** is optimized for long endurance patrol missions. The boat is fitted with twin Evinrude G2 300 horsepower outboard engines which can achieve a maximum speed of 45 knots, and can deliver a range of 200 nautical miles at 35 knots speed. The boat is fitted with a fiberglass cabin with forward cuddy, which is fitted with a portable toilet, shower, refrigerator and stove. The cabin is fitted with air conditioning and Shockwave S-3 cabin seating.



H940

"The 940 is configured for patrol and is therefore well appointed for extended time at sea. Its endurance and crew comfort were key factors which led the Italian Guardia di Finanza to acquire 20 of these boats," said Arignon. "The Italians use it to manage illegal immigration. They like it because it's performing well, the cabin is well designed for their needs and because their boats are fitted with two 30-man rafts which they can deploy very quickly when needed. The Italians have been so pleased that they've ordered additional boats."

The **Zodiac Hurricane 930 MACH 2** is best known as a 9-metre multi-mission platform. The boat is fitted with twin inboard Volvo D6 sterndrive engines which each produce 370 horsepower. The boat can achieve a maximum speed of 50 knots, and has a range of 240 nautical miles when traveling at 35 knots. The ZH 930 has been certified for air drop by C-130 transport aircraft.



H930

"We recognize that the small boat requirement appears to be shifting from a seven metre RIB to a nine metre RIB. There's various reasons for this, but in essence a nine metre boat gives much more multi-mission capacity to a customer. The first service to really explore this was the French Commandos who have

ZODIAC MILPRO

FOR THOSE WHO WORK ON THE WATER.

acquired fifteen boats which they call the ECUME. These are probably the most advanced nine metre boats in the world today, and we're building all of them here in Canada," stated Arignon.

These cutting edge boats have a patented Hybrid inflatable collar, and an epoxy resin carbon/glass composite hull which considerably reduces its weight. The boats have a payload capacity of three tons, and the boat deck is fitted with tracks which facilitate quick platform reconfiguration. To date, the French Navy has identified nine different configurations for their ECUME boats.

"The boat that we are demonstrating during the seminar differs from the ECUME in that all seats are shock mitigating seats. Other than that it is very similar to the French Commando boats in that it has weapon mounts fore and aft, and a stern gate which folds down and allows operators to remove the seats and deploy small boats or other equipment from the stern. The boat is also fitted with a TPMS [Tube Pressure Monitoring System] system which continuously monitors tube inflation," said Hemphill. "The TPMS system has a small color-coded display on the dashboard which reads all tube compartment pressures. If you're green you're good to go, if you're yellow you're under pressure but the pump will activate so you can operate the boat, but if red you'd need to investigate for a leak. It's a very useful system for high intensity operations."

The **Zodiac Hurricane 933** is a traditional deep V-hull 9-metre boat. This model will accept twin outboard engines, single or twin inboard diesels, with water-jet engines or sterndrives. The boat is fitted with weapon mounts fore and aft, and with 15 (2+13) Milpro shock mitigating seating.



The **Zodiac Hurricane 1100 MACH 2** is an 11-metre aluminium hull boat which is mated to three Yamaha 350 outboard engines. The boat has a maximum speed of 55 knots, and can travel 350 nautical miles at 35 knots speed. The boat is fitted with a hybrid Durarib collar, and a Shockwave ICE-3 six person console with Autotune. The boat has a deck track system which enables easy reconfiguration, and is fitted with Milpro AIR Gunner seats. The ZH 1100 is also the first small boat fitted with the MARSS NiDAR Command/Control Security Shield.



NiDAR is an autonomous system utilising advanced algorithms and pattern recognition to deliver a seamless 360° situational awareness picture. "Our NiDAR is a robust, stand alone, modular and scalable system with high availability and reliability. The system allows to multi-air, surface and underwater object detection and tracking up to 20 km above and 1.5 km below the surface," said Johannes Pinl, Managing Director and founder of MARSS. "Having our system mated to a Zodiac boat proves its scalability, and we're at the same time proving that Zodiac platforms are extremely versatile. It's exciting to see the two products work together - we've received excellent feedback during the seminar."

The **Zodiac Hurricane 1108 MACH 2** is an 11-metre high capacity aluminum boat which is mated to twin Volvo D6 DPH Sterndrive engines which each produce 400 horsepower. The boat is capable of 48 knots, and has a range of 230 nautical miles at 35 knots speed. Married to the hull is a patented Hybrid inflatable collar with an auto-inflation system. The boat has a three person console with a folding arch, Milpro AIR seating, a deck track system, folding aft gate, and a removable righting system. Seating capacity is for thirteen persons, with room for equipment like boarding poles. An electro-optical/infrared system will also be integrated on the platform.



ZODIAC
MILPRO

©2017 ZODIAC HURRICANE TECHNOLOGIES INC.
7830 VANTAGE WAY, DELTA, BC, CANADA V4G 1A7 P: +1.604.940.2999

ZODIAC
HURRICANE

ZODIAC MILPRO

FOR THOSE WHO WORK ON THE WATER.

“This boat is unique among the boats we are demonstrating in that it has left-hand throttle controls, which is quite rare. The boat is going to an operator in the Asia-Pacific region, and they had some unique requirements, so this is a perfect example of how we’re able to quickly adapt to customer’s needs. This boat is very similar to the ECUME, only bigger. One of the next steps in the evolution of this boat is to certify it to be air-drop capable,” said Hemphill.

The **Zodiac Hurricane 1300 MACH 2** is a brand new platform which had its world debut at the 2017 Seminar. Dubbed the Interceptor, this model is 13 metres long, and is mated to four Verado 350 outboard engines. The boat is designed with an aluminum hull/deck, and has a patented Hybrid Durarib collar with a dive door at the aft end of the boat. The boat is fitted with a dual console which has a pilot and navigator in the forward position, and a communication and team commander position for the aft console. The boat has a removable roof, and a folding mast with lift assist/fall protection. These attributes allow the boat to be air transportable. The Interceptor is also fitted with a deck track system which facilitates speedy reconfiguration as operational requirements dictate. The ZH 1300 has a maximum speed of 57 knots, and with its fuel capacity of 1910 litres, it can traverse 300 nautical miles at 35 knots.



“We’ve been involved with Customs and Border Protection in the United States in building their first Coastal Interceptor vessel. From that experience we saw the need for a new a high-speed interdiction boat which should also be versatile in having a high carrying capacity with a good deal of space - that’s our new Interceptor. We’re finding that it’s an excellent boarding platform too. It’s meant to be air transportable, so the roof and windshield are removable, and the mast folds down. We’ve also fitted it with weapon mounts forward and aft,” said Hemphill. “A new feature which we feel is very useful in maneuvering this boat is a new JPO [Joystick Piloting for Outboards] controlled electronic steering system. The boat also has the Skyhook station keeping system which is linked to the joystick and electronic steering via GPS; and it has point-to-point like cruise control. You can also input route

information on the chart plotter so it will follow that route with the simple touch of a button. The boat is a rocket on the water, so it’s perfectly suited for customers which need to cover a lot of area quite quickly, or for customers that may not have ships configured for coastal operations. It’s the perfect platform for high-speed interdiction missions which are becoming more prevalent around the world, and being that it’s a platform of systems, it’s easily adaptable to a host of other missions.”

Zodiac Milpro 2017 Vancouver Seminar a resounding success

After 3 days of seminar briefings and on-water demonstrations it was clear that delegates from around the world left with a much better understanding of Zodiac Milpro, its platforms and its products. The seminar served as a launch pad for new platforms like the ZH 1300 MACH 2 Interceptor, and it showcased various systems and sensors which help make these boats world-class platforms.

“The Zodiac Milpro seminar allowed operators like us in the Royal Canadian Navy an opportunity to see what’s available in the small boat market today. The RCN operates RIB PC’s which were built by Zodiac Hurricane, so it was very interesting to trial new Zodiac Hurricane boats and see first-hand their performance in comparison to what we operate,” said Commander Bryan Price, Commanding Officer of HMCS Discovery, Royal Canadian Navy. “There’s no doubt that investment in new technology and materials have helped Zodiac Milpro create modern boats which deliver impressive capacity, capability and performance. The seminar also allowed my reservists, and our partner colleagues in law enforcement like the RCMP and Vancouver Police, and friendly navies alike the chance to be experience new products which allows all of us to stay informed about new boat technologies.”

ZODIAC
MILPRO

©2017 ZODIAC HURRICANE TECHNOLOGIES INC.
7830 VANTAGE WAY, DELTA, BC, CANADA V4G 1A7 P: +1.604.940.2999

ZODIAC
HURRICANE