AUSTRALIANS CHOOSE KIWI POLICE CRAFT

The new wave piercer design aids in sea keeping ability

BY KEITH INGRAM

Following the successful acquisition of *VP09* from New Zealand boat building yard Q-West in 2014, Australia's Victoria Police has returned to the same yard and designer for its next major new build delivered in 2018.

The Victoria state government procurement system is a prescriptive autonomous tender system – open to all registered boat builders in Australia, New Zealand and Oceania.

In this case, the existing 15m monohull patrol vessel, *VP01,* was being retired as part of a significant fleet upgrade. Its replacement was up for tender along with a new 12m craft; five vessels in the 7m to 8m range; and six smaller craft. These were all for Government maritime work – policing, rescue or workboats.

As with *VP09*, the Teknicraft foil cat design was able to tick the boxes in the prescribed design specs for a new 16m craft. Over all, this configuration was able to provide a better package compared with, say, a mono hull design.

Because this new patrol vessel would be operating into Port Phillip Bay, it had to be capable of operating in a Sea-State III, at speed, while displaying good endurance. The new vessel needed to have the legs to get places quickly when lives were at stake.

One challenge, we were advised, was to ensure that the vessel would meet the specified weight-to-power, versus operating speed and performance levels. The Teknicraft foil cat was able to achieve this with power to spare.

ROLE

Much like New Zealand's own Water Police, the Victoria Water Police take the primary role of coordinating all marine incidents involving recreational vessels, yachts, fishing vessels and commercial vessels in the two local ports and Bass Strait.

These incidents often involve overdue vessels, flare sightings, boats suffering mechanical breakdowns, missing divers, injured crewmembers and distress calls.

Today the Water Police squad is based at Williamstown, in a multi-million-dollar state-of-the-art complex at the rear of the Williamstown police station. They are now co-located with the Search and Rescue Squad and are now known as the Water Police/Search and Rescue Squads. This has streamlined the administration of both squads – even though they still function as separate units.

While the main roles consist of law enforcement on the water, and search and rescue, in Australia the Water Police are responsible for enforcing the Marine Safety Act. Under the 2010 Act and the later marine safety regulations of 2012, the powers of the Police and authorities have been significantly increased. Unlike here in New Zealand, the Victoria Police now have the power to test for drug and alcohol impairment even when a boat is at anchor.

A new system of seaworthiness checks, as recommended in a Coroner's decision, has also been included in the proposed changes. Other initiatives contained in the Act have already been implemented, including what is referred to as the 'hoon' boating regulations to deal with dangerous behaviour on the water.

The Water Police coordinates all marine incidents throughout the State of Victoria and its coastal waters bordering the Bass Strait. They also maintain a Marine Investigation Unit, which assists with investigations of stolen vessels and other criminal activity on the Victoria waterways.

At the time of writing *VP01* was being prepared for loading onto a ship in Tauranga for delivery to Australia, after making a repositioning trip around the Wellington South coast and up the east coast to Tauranga. The Aussie acceptance testers got to trial the new vessel in similar conditions to what they can expect at home.

Looking very much like a sister of the recently launched NZ Customs patrol vessel, *Hawk V,* (which is 2m longer) *VP01* is another in this new class of specialized patrol-rescue vessel.

This 16.7m Teknicraft foil-assisted high-speed catamaran has a very business-like appearance and large array of electronics bristling above. Technically, *VP01* is a wave piercing foil cat with a small wave break bow shape under the wing deck. She was built at the yard of Whanganui-based boat builder Q-West, who successfully tendered for the build. ▶

VP01 maintains that official look and performance


A small galley


Main saloon


Single berth cabins below

We were advised that one of the hidden advantages of building in alloy (over, say, a GRP vessel such as the new 12m craft being built for Victoria Police by Melbourne-based Hart Marine at the same time) was flexibility during construction to allow the ability for the Police to observe and get a feel of the vessel as it developed. This left the option open to customise the vessel, or to make cost-effective changes *during* construction to suit their specific needs.

Using GRP construction, by comparison, can lock boatbuilders into a restrictive design where changes during construction are difficult. Plus, using alloy, if the changes were made early enough, more often than not, there were no additional charges or variation costs.

VP01 is constructed using high strength 5383 H116 marine grade alloy plate ranging in thickness from 6mm, 8mm and 10mm in the hulls and wing-decks, with the cabin in 4mm. It's all Sealium® marine grade aluminium, a product specially developed for both the marine and aerospace industries. The main property of Sealium® is that it is significantly *stronger* than other alloys commonly used in shipbuilding (a minimum of 15 percent stronger). Consequential weight savings are of prime importance to designers and manufacturers of high performance vessels built to meet the ocean's challenges.

Sealium® is protected by a thick layer of aluminium oxide which is why it has much better corrosion resistance than steel. Concealed areas have been primed with an added corrosion inhibitor, especially in areas where condensation can form and all bilges.

Above water the aluminium is left bare to gain its natural oxide patina. Like its sisters, this new vessel has a cold grey 'You can't see me' patrol boat look – until they switch on the flashing lights.

Below water *VP01*'s high speed hulls and foil are protected by the 'Pettit® Vivid' antifouling system.

Unlike some larger vessels, *VP01* does not carry a separate small quickly deplorable rescue tender. Likewise it does not have and external fly-bridge command option. Rather the small upper aft deck behind the bridge is home for the small Hutchwilco Zodiac Milpro IRB35 3.8m rescue boat fitted with a Tohatsu 30hp outboard, which may be deployed by its single lift davit when required.

WALKTHROUGH

On stepping aboard, central on the wide aft deck is a solid towing post, with two rope reels on the forward screen to stow the two differing sized tow lines – one heavy and one lighter.

On looking around the deck we note a grid pattern of screw-down anchor points to secure a range of differing loads – from


Note the trip hazard forward


Wide aft deck


Tow rope reels


Access up

cargo boxes to a jet ski – which may be lifted by the single davit above when required to be deployed. The jet skis are frequently required to be used when patrolling the inland waterways or beaches in the patrol area – to give a quick response to local hoon's disappearing up small creeks.

Moving forward, we note the wider waists giving clear ease of access forward for the crew. The foredeck, apart from the central anchor winch and chain, remains unobstructed with flush secure hatches giving access to the bow voids and the anchor locker that drops into the false wave break in the wing deck. Once again, it's good to see our local 'Chains Ropes and Anchors' supplying the quality ground tackle for the vessel. There is also some additional stowage in lockers built into the slope of the deck house for rope and fender stowage.

We note the wave piercing bows stop just short of the bow belting, suggesting berthing in marinas must still be done with a degree of caution. The bow area and waists are securely fenced with permanent rails.

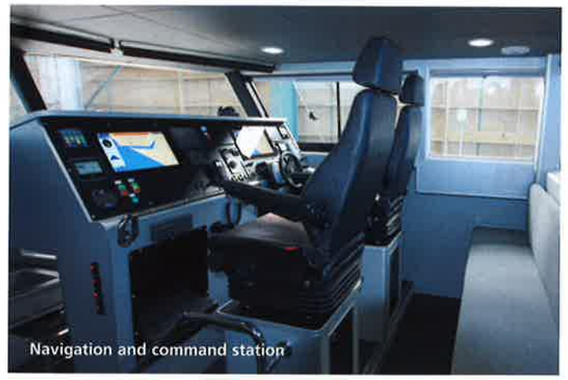
On the four corners of the vessel we find substantial single staghorn bollards with and an additional three sets of bitts along each side – offering numerous securing points when bringing suspect/vessels of interest alongside for further investigation.

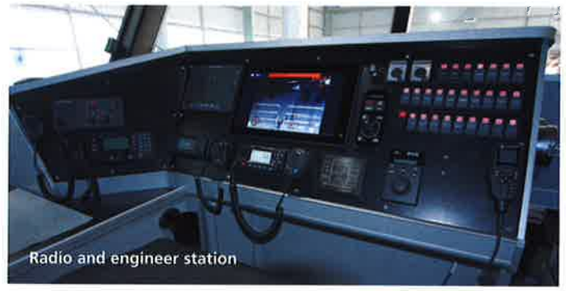
Moving aft again we note there is access up top to the dinghy deck in an alcove to starboard; a large stowage locker amidships; and the main entrance to the deckhouse to port. On entering, we find the single unisex heads and shower to the right and a further two doors. One gives access to a large under-bridge area containing all manner of stuff. From the look of it, it is a handy compartment to put everything looking for a home. (No it's not the jail.)

The door ahead leads directly into the saloon. Both the outer and saloon doors are wider than average, to accommodate a standard medical stretcher. There is a stretcher bay directly ahead laying athawtship in the saloon.

Here we find the fully-equipped galley to starboard, ahead of which amidships is the four seater dinette with a large table that maybe double as an on-scene planning area.

A further two companionways lead down into both hulls to two single berth cabins, fore and aft, with a large stowage ▶


Navigation and command station


Radio and engineer station

locker facing the landing. We also note the two escape hatches in the forward accommodation leading to the waists above.

CONN

Stepping up into the bridge and command area we find the main navigating station centre and helm station to starboard. Directly behind is a small settee for guests or passengers. To port are two stations, one behind each other, the rear one being dedicated to the on-scene tactical commander. In front of this is the radio operator-cum-engineer–cum night-eyes and look out.

All four stations are fitted with Be-Ge98 series adjustable safety seats. Unlike some other patrol craft we've seen lately, currently no harnesses are fitted. We suspect given the conditions encountered on the journey up the east coast to Tauranga, the retro-fit of harnesses might be on the shopping list.

ELECTRONICS

VP01 is fitted with an impressive array of electronic aids. At the main helm and navigation stations we find two TZTL 15F 15.6 inch multifunction displays. A further display is at the command/observer station. These multi-function displays are fitted with USB joystick controls and the Australian AUM005 C-Map wide area charts. They are supported by a 12kW 96nm radar and a 3D Multi beam sounder. For communications we find the ICOM VHF and SSB radios. There is a FLIR thermal imaging camera system and an extensive on board CCTV camera and recording system.

Interior lighting and exterior throughout is from Hella, with a mix of Duraled, Euroled, Seahawk and Naviled lighting where required for each application.

POWER

VP01 is powered by twin Scania DI13 077M 551kW @2300rpm, coupled to twin Hamilton HJ364 Hamilton water jets fitted with the Hamilton blueARROW steering system. For auxiliary power we find a Kohler 17.5EFKOZD gen-set.


***VP01* although 2m shorter than *Hawk V* shows she is still zippy**


The HJ 364 hides at


Scania power fits snug


A busy engine room


One of the many Police night lights

On board tankage offers a total fuel capacity of 3,500 litres offering a range of 400nm and a modest 300 litres of fresh water.

Once out of the shed during delivery sea trials, *VP01* performed as expected in exceeding the prescribed service speed of 25 knots at 64 percent power. Fuel burn was 6.65 litre per nautical mile for both engines, rising to a comfortable 28 knots at 70 percent power, then delivering a top speed of 36 knots. It was interesting to note that while there was a specified fuel range of 400nm at a service speed at 25 knots, the vessel can expect to achieve over 500nm before sucking the tanks dry.

Somehow, considering the operating conditions for the Water Police, we get the feeling that once the vessel loosens up and settles down with its relatively low wash, the new operating service speed may settle on 28 knots – which is a pretty quick pair of heels in any sailor's language.

Once again it is nice to record the successful build and export of an excellent New Zealand built craft to a very exacting overseas client. We are confident that this new *VP01* will outperform her older namesake and quickly set a new standard for police patrol vessels in Australia.

SPECIFICATIONS

LOA	16.7m
Beam	6m
Draft	.82m
Power	Twin Scania DI13 077M 551kW Marine diesels
Propulsion	Twin Hamilton HJ364 Hamilton Jets with blueARROW
Service speed	25 knots
Construction	Sealium® marine alloy
Designer	Teknicraft Design
Builder	Q-West Boat Builders Whanganui
Owner	Victoria Water Police Australia

SUPPORTING SUPPLIERS:
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