

CYBER-SMART SHIPPING

Computer simulation programs are triggering real-life improvements as the Victorian Regional Channels Authority draws on sophisticated cyber technology to help plan a strong future for Geelong's thriving port.

VRCA chief executive officer, Captain Peter McGovern, said the high-tech tools have played a part in major port upgrades, including last year's \$9 million Geelong dredging program. And he's adamant they give port planners valuable lead-time to prepare for coming challenges in the maritime industry.

"Computer simulation programs - both at VRCA headquarters in Geelong and at Smartship Australia in Brisbane - are so important when it comes to looking into the future of Geelong's port," Captain McGovern said.

"Safety, efficiency and productivity are the key words to keeping this vital port competitive. The technology allows us to constantly test those factors in the face of bigger ships, increasing trade and new commodities, pinpoint necessary upgrades and then carry them out."

The authority, responsible for managing shipping lanes into and within Corio Bay, is already planning a new round of upgrades to the channel network near Refinery Pier and Lascelles Wharf to ensure it remains safe for the next generation of longer and wider ships.

The latest proposal follows the successful multi-million dollar dredging program that improved safety at the channel network's City Bend and boosted the productivity of Corio Quay North Number 4 Berth by deepening it.

The port owners are also planning a major new berth upgrade at Lascelles Wharf to relieve congestion on the wharf's three existing berths.

Harbour Master, Captain Dilip Abraham, and Port Phillip Sea Pilots use Smartship Australia's world-class ship simulators to test both the port berths and the shipping lanes' capacity to handle bigger ships set to regularly call at Geelong over the next few years.



Using a Full Mission Bridge simulator, they successfully 'piloted' vessels measuring up to 280 metres long into Geelong's port, safely round a newly-widened city bend and into berth at Refinery Pier and Lascelles Wharf during this year's latest round of tests.

"The simulation program helped pave the way to last year's dredging program, when regular tests showed these large ships of the future would struggle to navigate City Bend safely," Captain McGovern said.

"With ship owners turning to bigger ships to achieve economies of scale, it's imperative our port infrastructure can handle these big visitors when they arrive. The 2014 City Bend work was part of that continual upgrade to keep the port's competitive edge."

The VRCA's computer simulation program Planimate is another cutting-edge tool the authority draws on to help prepare the port for a projected doubling of trade by 2030.

The authority uses the interactive development tool to test channel capacity and existing infrastructure's ability to cope with increases in ship size and trade.

"It allows us to do sophisticated logistic modelling, which includes the movements of ships, traffic on land and cargo to and from the port," Captain McGovern said.

"We can test how the port's infrastructure will cope with half a million tonnes of a new commodity, model the number of ships needed to transport that cargo, the time they'd need alongside the berth and the supporting road and rail transport the new trade would trigger."

Captain McGovern said computer simulation programs paint realistic scenarios that allow the VRCA, port owners and users to carefully plan and carry out major infrastructure boosts at the port.

"It's imperative this port can continue to embrace new trade and vessels. This technology is definitely helping us keep the port in a great position to capitalise on future opportunities," he says.



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