

THE AUSTRALIAN CORVETTES

The corvettes were handy and reliable, and in addition to minesweeping, patrol and escort work they were employed on an endless variety of tasks including the carrying of troops and stores, participation in bombardments and assault landings, surveying and towing operations. In short they were maids-of-all-work.

John Bastock, *Australian Ships of War*¹

Semaphore 04 of 2010 describes the 2009 White Paper plans to develop a modular class of 20 offshore combatant vessels (OCV); the aim being to rationalise the Royal Australian Navy's (RAN) existing fleet of patrol boats, mine countermeasures vessels and hydrographic and oceanographic ships.² This is not the first time that the RAN has employed multi-role vessels for these tasks, and the successful experience of building and operating the *Bathurst* class minesweepers 70 years ago offers an intriguing background to current and future challenges.

The 56 *Bathursts* were workhorses rather than 'glamour' ships.³ Although some sources claim that the design was a variant of the British *Bangor* class minesweepers, it was in fact a uniquely Australian development. The staff requirement for large numbers of a relatively simple, anti-submarine (A/S) and minesweeping (M/S) patrol vessel arose in February 1938,⁴ but the design actually originated in the need for a tender to be permanently allocated to the RAN's new A/S School at Rushcutters Bay in Sydney. In July 1938, the Australian Commonwealth Naval Board (ACNB) set the Director of Engineering (Navy), Rear Admiral (E) PE McNeil, to the task, and within a fortnight he had reported back that a 500 ton local defence craft could be built for £100,000. By means of a quite remarkable in-house design effort, within another month McNeil had provided preliminary plans of a 'very useful little ship', and by February 1939 had the drawings virtually complete.

The vessel's revised displacement stood at 680 tons, with a speed of 15.5 knots and a range of 2850 nautical miles. With a 4-inch gun, asdic, and optimised either with depth charges or M/S gear, the proposed vessel had the capabilities of a small sloop rather than a local defence craft, but it was also much more versatile. Although somewhat slow for a specialised A/S vessel, the designers expected twin screws to provide good manoeuvrability and a performance about midway between the average small merchant ship and a destroyer. The estimated cost had increased by only £10,000 and McNeil was clearly proud of his branch's work, remarking that it represented 'the smallest type in which reasonable seagoing qualities and speed for the purposes in view can be combined'.⁵ Perhaps more importantly, in view of the need for Australian self-reliance, was that with the exception of armament and specialised instruments the vessel could be repeated from local resources, and built in yards unaccustomed to naval shipbuilding.

Finding that equivalent British designs were either too unhandy for A/S work or too deep draught for M/S tasks, the ACNB accepted that the Australian design not only met both requirements better, but could also perform the convoy escort task. Yet despite its evident usefulness, and a recognised shortage of ocean escorts across the British Empire, the new vessel, officially designated the 'Australian Minesweeper' (AMS), but popularly known as the corvette, remained

subject to the normal procurement process. Government approval for the construction of the first seven vessels was not obtained until September 1939, just after the outbreak of World War II.

When placing the orders, the Navy Minister, AG Cameron, predicted an output of two AMS per month, but planners had underestimated the difficulties, notably delays in equipment delivery caused by the war at sea and the impact of other urgent defence requirements. Notwithstanding RAN pressure to begin building as early as possible, Cockatoo Dockyard in Sydney did not lay the keel of the first hull, HMAS *Bathurst*, until February 1940. The decision to share the ship construction work between eight shipyards, spread out across southern and eastern Australia, inevitably slowed down the project. The small team of naval overseers located at Cockatoo were stretched to their limit providing support to the commercial shipyards. Although the corvettes were nominally built to merchant ship standards, the ACNB soon discovered that each corvette might still take at least ten months to complete. Further slowing RAN deliveries, the Australian Government had soon graciously offered to assist with urgent build orders for the British Admiralty.



The lead ship, HMAS Bathurst, on trials, but already fitted for minesweeping

By June 1940 only five corvettes had been laid down of the first 17 ordered. The early delivery of future vessels could only be achieved by giving their construction first priority of supply, and a position in advance of the remainder of the Defence program. Although the start of enemy surface raider activity in October 1940 had further highlighted the shortage of ocean escorts, no such adjustment was forthcoming.

The new corvettes were fitted with both A/S and M/S equipment, but previous plans had called for them to be employed almost exclusively on A/S duties. Hence, when German raiders began employing mines to begin their anti-shipping campaign in Australian waters, the RAN found it difficult to mount an effective response. In partial answer, the Chief of Naval Staff agreed that all AMS vessels might be employed on minesweeping duties 'until a greater submarine threat exists'.⁶ Further easing the situation, the British accepted that the RAN could retain the first four corvettes building on Admiralty account until replaced by new construction. Nevertheless, when Japan entered the war in December 1941, the RAN had just three corvettes available for local operations. Production accelerated during 1942 and continued as a priority until early 1943. But thereafter, it became clear that the improving war situation required additional craft for amphibious assault operations rather than ocean escort.

Year	Corvettes Commissioning		
	Jan-Jun	Jul-Dec	Total
1940	-	2	2
1941	6	7	13
1942	12	16	28
1943	7	2	9
1944	4	-	4

Figure 1. Australian Corvette Production

Minesweeping

With their roomy quarterdeck, the corvettes performed particularly well as minesweepers. In addition to deploying traditional mechanical (wire) sweeps, influence (LL) sweeps designed to simulate a target ship's magnetic and acoustic signature were soon introduced. In March 1943, HMAS *Gympie* successfully swept the first ground influence mine found in Australian waters, a German supplied weapon laid by a Japanese submarine in the approaches to Brisbane. In August 1945 eight corvettes swept ahead of the victorious British fleet as it entered Hong Kong and three were present in Tokyo Bay at the Japanese surrender. The post-war era allowed no let up, and in addition to further sweeping and anti-piracy patrols off Hong Kong, the corvettes played a major role in clearing minefields around the Southwest Pacific. None were ever lost to enemy mines but, tragically, in September 1947 HMAS *Warrnambool* struck an Australian-laid mine while attempting to clear a defensive field in the Great Barrier Reef. She sank with the loss of four lives.

Anti-Submarine and Escort Tasks

Former corvette sailors have claimed that their beloved ships would 'roll on wet grass', but they proved capable, if rather lively, ocean escorts. In January 1942, HMAS *Deloraine* achieved the RAN's first victory over a Japanese submarine while off Darwin, and other corvettes took part in several combined kills. With the introduction of the east coast convoy system in June 1942, corvettes became a familiar sight escorting merchant ships between Melbourne and Brisbane, and troop and military stores ships to and from northern theatres. Well suited to operations in poorly charted waters, the corvettes did much to provide an effective counter to enemy submarine and air attacks, and they led the gradual advance of Allied power round the south-eastern tip of New Guinea. Operation LILIPUT, for example, saw 15 corvettes provide protection for a regular supply service between Milne Bay and Oro Bay from December 1942 to June 1943 in support of joint and combined operations in the Buna-Gona area.

Further afield, the corvettes performed similar tasks in the Indian Ocean, the Persian Gulf and the Mediterranean Sea. A few even operated briefly in the Atlantic. In July 1943 eight corvettes acted as convoy escorts during the invasion of Sicily and later provided mine sweeps and an A/S screen off the landing beaches. A month later four of these corvettes demonstrated how, when adequately armed and skilfully handled, they could mount a formidable air defence. Forming half the escort strength for a convoy of 40 large merchant ships heading from Oran to Gibraltar, they helped break up a determined attack by almost 50 German torpedo bombers. For the loss of at least nine aircraft, the enemy caused non critical damage to only two ships in the convoy.

Surveying and Other Roles

The flexible design of the corvettes meant that they could adopt many other roles as the war situation demanded. Capable of transporting up to 400 troops ship-to-shore and 100 for periods of up to four days, they were regularly employed on army support, and later in the transport of internees and the liberation of Allied prisoners of war. The sole corvette lost to enemy action, HMAS *Armidale*, was sunk by Japanese aircraft in December 1942 while engaged in the reinforcement of guerrilla forces and the evacuation of civilians from Portuguese Timor. Support to Australian troops culminated in the capture of Wewak in May 1945, with the involvement of two corvettes in the larger naval bombardment and covering force operations.



HMAS Shepparton fitted out as a survey vessel, with radar, an extra bridge and bamboo survey markers

In early 1943 two corvettes were specially modified for survey work and, forming part of TG 70.5, thereafter took part in surveying and charting operations for the US 7th Fleet in the Southwest Pacific area. They first piloted an invasion force to its landing on Kiriwina Island in June 1943 and subsequently took part in many of the most important amphibious operations. HMAS *Benalla*, for instance, was in the survey group for the bombardment and US assaults at Leyte Gulf in the Philippines in November 1944. Often these initial survey tasks were performed without the benefit of friendly air cover.

Some 20,000 men served in corvettes during World War II, making them the RAN's largest single grouping of personnel. Much of the work they performed was unspectacular, but it was essential nonetheless. Continuously engaged in escort, ferrying and a myriad other tasks their vessels more than proved the wisdom of the designers. The need for such a useful and adaptable warship has not gone away, and as the design of the new OCV matures the need for long-term flexibility must necessarily be a key factor in decision making.

1. J Bastock, *Australian Ships of War*, Angus & Robertson, Sydney 1975, p. 163.
2. See Royal Australian Navy, 'Australian Offshore Combatant Vessels', *Semaphore* 04, May 2010, and Department of Defence, *Defending Australia in the Asia Pacific Century: Force 2030*, Canberra, 2009, p. 73.
3. Thirty six were built for Australia and 20 on Admiralty account, but commissioned as HMA ships. Another four were built for the Royal Indian Navy.
4. Paper by Captain JA Collins, 'A plea for smaller sloops in larger numbers, February 1942, SPC-A, file 191C.
5. D Stevens, *A Critical Vulnerability*, Sea Power Centre - Australia, Canberra, 2005, pp. 104-5.
6. Stevens, *A Critical Vulnerability*, p. 152-3.

