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978-0-521-86894-5 - The Collins Class Submarine Story: Steel, Spies and Spin

Peter Yule and Derek Woolner

Excerpt

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PART 1

YOU CAN'T BUILD SUBMARINES IN AUSTRALIA

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CHAPTER 1

‘The one class of vessel that it is impossible to build in Australia’: Australia’s early submarines

THE NEW SUBMARINES: ARE THERE FATAL DEFECTS?

This headline appeared in the *Melbourne Age*, not in the 1990s, but on 12 July 1928. It referred not to the Australian-built Collins class submarines, but to the British built O class. In 1925 two of these submarines were ordered for the Royal Australian Navy from Vickers’ shipyard at Barrow in the north-west of England. Delivery was 12 months late due to industrial problems and shortages of skilled workers, but the worst problems were not seen until the submarines, *Oxley* and *Otway*, had entered the Mediterranean Sea on their way to Australia. Cracks and fractures were found in the diesel engines of both boats, and they were stranded in Malta for eight months.

Inevitably the delay and cost led to debate in Australia. The government and the navy were accused of buying an experimental design that had not been properly tested and of hiding the truth ‘in a fog of mystery’.¹ Official responses were vague and misleading and, failing to quell public concerns, led to ever more extreme claims about the boats’ failings.² The lack of open and public

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discussion led to a general belief that the faults were far worse than they really were. Further, the debate was deliberately fanned by leading figures in the navy and the government who were opposed to having submarines at all.

Submarines have long been controversial in Australia. From the earliest days of the navy the same topics have been debated. Should the navy have submarines? If so, should they be built in Australia or overseas? Does Australia have the ability to build submarines? What are the most suitable submarines? Will they prove too expensive? Will they perform as intended? The debates have been more bitter and prolonged with the Collins class than with any other, but most of the issues raised in the controversies over Collins have familiar resonances over the century since Alfred Deakin first proposed submarines for the Australian navy.

In April 1904 Admiral Sir John Fisher, the architect of British naval policy before the First World War, described an incident he observed during British naval exercises off Portsmouth:

Here . . . is the battleship *Empress of India* engaged in manoeuvres and knowing of the proximity of Submarines, . . . so self-confident of safety and so oblivious of the possibilities of modern warfare that the Admiral is smoking his cigarette, the Captain is calmly seeing defaulters down on the half-deck, no one caring an iota of what is going on, and suddenly they see a Whitehead torpedo miss their stern by a few feet! And how fired? From a submarine [which] followed that battleship for a solid two hours under water.³

He concluded: 'In all seriousness I don't think it is even faintly realised – *The immense impending revolution which the submarines will effect as offensive weapons of war*' [original emphasis]. Fisher's enthusiasm for submarines was reflected in the original vessels ordered for the Royal Australian Navy.

When Prime Minister Alfred Deakin announced his plan for an Australian navy after discussions with the British Admiralty in 1907, it was based on a flotilla of nine submarines and six destroyers. Deakin met strong opposition from Captain William Creswell, Australia's senior naval officer, who argued that submarines would 'be useless for Australia under present conditions or against any attacks possible to occur' and they were expensive to maintain and difficult to crew.⁴

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However, Deakin had the endorsement of Admiral Fisher, had seen a demonstration of submarines in England and remained committed. This was not to be the last time that Australian politicians were more enthusiastic about acquiring submarines than the navy itself was.

In the decade before 1914 Britain became increasingly fearful of Germany's rapid naval expansion and this led Admiral Fisher to advise Australia to create a 'fleet unit' of one battle cruiser, three cruisers, six destroyers and three submarines. This proposal was endorsed by Deakin's government in September 1909 and formed the basis for Australian naval planning until the First World War, although the three C class submarines originally proposed were replaced by two of the more modern and more expensive E class.

While most of the fleet was ordered from British shipyards, there was great political enthusiasm for building some vessels in Australia, and a destroyer ordered under the 1907 scheme was reassembled at Cockatoo Island Dockyard in Sydney. This took six months longer than planned and 'was not without its problems' but the government and the navy were satisfied that Cockatoo Island could attempt more substantial projects. Orders were placed in August 1912 for a cruiser and three more destroyers and all were delivered during 1916. The construction of the 5400-ton cruiser HMAS *Brisbane* has been cited as 'the most complex industrial project undertaken in Australia to that time' and, while there might be arguments that the BHP steel works at Newcastle has stronger claims, there is no doubting that *Brisbane* was a significant achievement.⁵ At her launch the Minister for the Navy, Mr J. A. Jensen, said: 'There is no reason why the Australian workman should not be able to produce practically everything required on a destroyer, a cruiser, a battleship or a submarine.'⁶

In reality, Cockatoo Island, the only Australian yard able to build large naval ships, had numerous drawbacks. Together with the higher wages of Australian workers, these meant that Cockatoo's ships cost roughly double that of British vessels.⁷ In response to an Australian query, Vickers argued that reassembling prefabricated submarine parts and machinery was impractical but that submarine hulls could be built in Australia with British fittings, machinery and skilled workers. Vickers was clear this would be an extremely expensive operation.⁸

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Consequently there was no opposition to the government's decision in late 1910 to order two E class submarines from Britain. Delayed by Vickers' high workloads and shortage of skilled labour, *AE1* and *AE2* arrived in Sydney in May 1914. They needed maintenance and repair after a 12 000-mile voyage, but support arrangements were incomplete: the submarine depot ship, HMAS *Platypus*, was not ready, and even their base was undecided. Reflecting both unfamiliarity with, and in some quarters disdain for, the requirements of submarine operations, the purchase of *AE1* and *AE2* also demonstrated a continual feature of Australian defence procurement – the failure to appreciate both the full costs of supporting equipment and the opportunities for integrating local industry support.

With the outbreak of war in August 1914 the new submarines joined the fleet for the attack on the German wireless station at Rabaul, but *AE1* failed to return from patrol on 14 September and was never seen again. *AE1* was the first vessel lost by the Australian navy and its sailors were among Australia's first casualties of the First World War.

AE2 sailed to the Mediterranean where she played a dramatic but little-known role in the Gallipoli landings. On 25 April 1915 *AE2* was the first allied vessel to penetrate the Dardanelles and her radio message giving notification of her success helped sway General Ian Hamilton against withdrawing land forces from the peninsula. Over the next few days *AE2* torpedoed a Turkish gunboat and caused great disruption to Turkish shipping, but she did not return from her mission. Hit by Turkish gunfire, *AE2* was scuttled by her crew, who spent the rest of the war as prisoners.⁹

In spite of these losses the Australian government remained committed to an Australian submarine arm and made several approaches to the British Admiralty for new submarines. However, British shipyards were too busy and Australia would have to wait upon the Admiralty's priorities for access to submarines.¹⁰

This raised the question: why not build submarines in Australia? The opening of BHP's steel plant at Newcastle, the wartime need to replace imports with local production, and the enormous military demand led to a rapid increase in industrial capacity during the war years. Cockatoo Island successfully built two

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cruisers, three destroyers and several large auxiliaries for the navy between 1913 and 1919, with the destroyers being the first steel ships wholly built in Australia.¹¹ During the war, Canada, whose economic and industrial development was at a similar level to Australia's, built 18 complete H class submarines for the British and Italian navies and a further 17 in kit form for Russia.¹²

The matter of replacements for *AE1* and *AE2* was raised in parliament on 27 May 1915. Jens Jensen, the assistant minister representing the Minister for Defence in the House of Representatives, said, 'I hope we shall soon have more than two submarines', to which Joseph Cook, always a passionate advocate of Australian self-reliance, responded: 'And I should like them all to be built in Australia if possible.' To which Jensen replied: 'The submarine is the one class of vessel that it is impossible to build in Australia.'¹³ This statement was not contested. Naval experts and politicians agreed that building submarines required specialised skills and materials that were unavailable in Australia.

After the First World War the problem of excess demand for military equipment quickly became a problem of excess supply. In January 1919 the Australian government accepted a British offer of six surplus J class submarines, which arrived in Sydney Harbour on 15 July 1919. They were in poor condition and required extensive refits. Although the management of Cockatoo Island had had many months notice, the yard was quite unprepared for the work. The repairs were slow and had scant regard for quality, primarily because of shortages of skilled workers and delayed British spare parts,¹⁴ and were not completed until the J boats were no longer wanted. The navy's budget had been slashed due to post-war hopes for disarmament and an increasingly stagnant economy and, desperate to keep its surface ships, the service chose to sacrifice the obsolete and expensive J boats. Laid up in 1921, they were sold for scrap the following year.¹⁵

Yet government policy and Admiralty advice continued to support the development of an Australia submarine force. Even before the J class boats were paid off, the navy was again looking at the possibility of building submarines in Australia. On 23 November 1920 the chief of the naval staff wrote to Vice-Admiral Sir William Clarkson, the member of the Naval Board in charge of engineering and shipbuilding:

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[More information](#)

8 THE COLLINS CLASS SUBMARINE STORY

I shall be glad if you will investigate the possibility of building submarines in Australia . . .

The following information is what is particularly required:

- a Can Submarines be built at the present time and if so where
- b Is the necessary skilled labour available locally
- c What additional plant if any is required in order to commence such construction and a rough estimate of the cost of such plant and all it involves.¹⁶

The blunt reply came in just two days:

With reference to your enquiry, the following information is appended . . .

- a No
- b Sufficient skilled labour is not available locally. A few men have been trained in establishments where submarines are built, but they are not sufficient.
- c Will be investigated.¹⁷

The general manager of Cockatoo Island Dockyard was asked to give an answer to the third question. He replied with a detailed report on 16 December listing and pricing the equipment that would be required to build submarines, and concluded that construction in Australia would be feasible but certain raw materials and the batteries and electrical equipment would have to be imported.¹⁸ However, in early 1923 Clarkson concluded that 'the marine engineering development of Australia was at present emphatically incapable of constructing submarines'. A submarine built at Cockatoo Island would cost more than double the British price and 'ran the gravest risk of ultimate failure'.¹⁹ Consequently, in late 1924 when the government agreed to buy two new O class submarines, no voices urged construction in Australia.

The ill fate that had dogged the Australian submarine service since the loss of *AE1* in September 1914 continued with the O boats, *Oxley* and *Otway*. Lengthy delays, mechanical failures and public furore turned both political and naval opinion against them. By mid-1929, when they were finally ready for service, the economy was spiralling into depression, and it had already been decided not to complete the planned flotilla of six. As in the early 1920s, the navy leadership was determined to maintain its

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surface ships and quickly agreed to sacrifice the submarines. In May 1930 *Oxley* and *Otway* were paid off and a year later they were returned to the Royal Navy.²⁰

An important lesson from the failures of the J and O class submarines in the Australian navy was the importance of a modern and growing economy to the possession of modern weapons. The Australian economy in the 1920s and 1930s had a narrow industrial base, relying heavily on the export of primary products to Britain, itself with a steeply declining economy. The pitiful state of Australia's military preparedness in the late 1930s was not entirely due to myopia – an empty federal treasury was unable to fund rearmament and a tiny industrial base was unable to supply more than a trickle of modern weapons and equipment.

The Australian shipbuilding industry expanded enormously during the Second World War, building over 100 naval vessels between 1939 and 1946, including 60 Australian-designed Bathurst class minesweepers and 12 River class frigates.²¹ To keep Cockatoo Island and Williamstown dockyards in work a post-war program began to build 12 destroyers every 10 years. The first were begun in 1949 but only three had been completed by 1959, with the cost between order and completion rising from £2.6 million to more than £7 million each. This experience typified Australian post-war naval shipbuilding. Local construction cost more and took longer than planned. While the quality of the work of the local shipyards was good, productivity was low, labour relations were a nightmare and many projects were never completed.²²

In May 1964 two Type 12 frigates, *Swan* and *Torrens*, were ordered from Cockatoo Island and Williamstown. Although based on the earlier River class, the designs were radically altered, constituting a virtual re-design. Political pressure led to the ships being laid down prematurely and 'construction was hampered by design delays, late equipment deliveries and constant design changes'.²³ When *Torrens* was finally completed at massive expense in January 1971, 'it was to be the last major combat ship completed in an Australian shipyard for 21 years'.

Naval shipbuilding reflected deeper problems in the Australian economy. While manufacturing expanded rapidly in the 1940s and 1950s, stimulated first by the war and later by a rapidly rising population, it was dependent on high tariffs on imports.

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10 THE COLLINS CLASS SUBMARINE STORY

Australian manufacturers were small-scale, technologically backward and focused solely on the domestic market. Industrial relations were poor, labour costs high and productivity low. These factors lay behind the malaise of the Australian economy in the 1970s and early 1980s when high inflation and unemployment accompanied a rapid decline in the country's manufacturing base.

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CHAPTER 2

Australia's Oberon class submarines

Although Allied submarines based in Fremantle and Brisbane wreaked havoc on Japanese shipping during the Second World War, Australian naval authorities showed no interest in acquiring submarines afterwards. Yet submarines were needed for anti-submarine warfare training and in 1949 it was arranged that the Royal Navy's fourth submarine flotilla (normally consisting of two or three submarines) would be based in Sydney. This forced Cockatoo Island Dockyard to develop expertise for maintaining and refitting submarines – complex tasks requiring advanced technical skills lacking in Australia during its brief periods of submarine ownership. Until 1960 the British submarines were refitted in Singapore but between 1961 and 1966 five refits were successfully carried out at Cockatoo Island.¹

In the late 1950s Australia again began to debate the ownership of a submarine force, led by John Gorton, whose term as Minister for the Navy was noted for his questioning of many of the navy's dogmas. In 1959 the Chiefs of Staff considered the issue and decided that 'the institution of a submarine service would be a valuable addition to balanced Australian Defence Forces'. Their report argued that the main role of Australian submarines