

# The strange submarine saga: vital yet vexed

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*“Our submarine capability underpins Australia’s credibility and influence as a modern military power. This is not about politics. This is not about partisanship. This is about the security and the future of our nation.”*

Defence Minister Linda Reynolds, 2 July, 2020<sup>1</sup>

*“The consequences of the failure to manage the Future Submarine Program properly are profound. Australia is now faced with the most wicked problem. We have seen continuing delays in the build from [France’s] Naval Group...But any thought of ending the contract with Naval Group and pursuing another alternative would obviously be very expensive and involve enormous delay of itself. The Morrison Government has put Australia’s national security between a rock and a hard place.”*

Deputy Labor leader and Shadow Defence Minister Richard Marles, August, 2020<sup>2</sup>

*“The Japanese sub lacked range. The German sub lacked size. And the French sub lacked conventional power. But instead of changing what we wanted, we’ve decided—again—to bring an orphan submarine into being. Instead of taking a small Swedish submarine designed for the Baltic and seeking to double its size and range to make it suitable for the Pacific—as with the Collins—this time we’re proposing to take a French nuclear submarine and completely redesign it to work with conventional propulsion.”*

Former Prime Minister Tony Abbott, June, 2017<sup>3</sup>

Both sides of Australian politics love what submarines offer Australia. Submarines are a fundamental element of the bipartisan consensus on defence. The love quickly becomes agony and angst when we turn to building the boats.

The strategic importance of the submarines is matched by their degree of difficulty. Vital yet vexed.

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1 Linda Reynolds, “Speech—Australian Strategic Policy Institute”, Defence Minister, July 2, 2020. <https://www.minister.defence.gov.au/minister/lreynolds/speeches/speech-australian-strategic-policy-institute>

2 Richard Marles, “Address to the National Press Club”, Deputy Leader of the Australian Labor Party and Shadow Defence Minister, August 4, 2020. <https://www.richardmarles.com.au/wp-content/uploads/2020/08/20.08.04-address-to-the-national-press-club.pdf>

3 Tony Abbott, “Submarines: why settle for second best?”, Centre for Independent Studies. June 29, 2017. <https://www.cis.org.au/commentary/articles/transcript-the-hon-tony-abbot-mp-submarines-why-settle-for-second-best/>

For a couple of decades, the problems of the Collins class drove government to despair. In office, Labor and the Coalition hated the complexity and cost of Collins; the dud subs have slowly transformed into six beaut boats but the journey left deep scars on the political and defence classes.<sup>4</sup> Collins was a wicked problem (complex interdependent problems with no “stopping rule”; solving one aspect leads to other problems).

Procuring the 12 Attack class boats is equally wicked. The cost of the largest defence procurement in Australia’s history has blown out to \$90 billion. The timelines stretch and the effort to get Australian industry to do the build is also a stretch.

Surveying this megaproject, one of Canberra’s sharpest umpires, the Australian National Audit Office, didn’t offer any recommendations, only “key messages”, in its January, 2020, performance audit.<sup>5</sup> The dollar meter tells the story, as the ANAO recounts:

*“In 2016 Defence reported the acquisition cost of the new submarines as more than \$50 billion (out-turned). In November 2019, Defence advised the Senate that the acquisition cost of the Future Submarine was ‘in the order of \$80 billion out-turned’, with an estimated sustainment cost of \$145 billion out-turned to 2080.”*

“Out-turned” is Defence-speak for “accounting for inflation”. As it’s turning out, the dollars are blowing out. The \$80 billion figure quickly turned upwards.

The strategic force structure plan, released in July, 2020, upped the acquisition cost of the Attack boats to \$89.7 billion, in a forecast extending beyond 2040.<sup>6</sup> The precision of that last \$700 million in the \$89.7 billion forecast, 20 years from now, is a nice touch—nearly \$90 billion, but not quite.

In the order of \$80 billion in November, 2019, becomes in the order of \$90 billion by July, 2020. A billion here, a billion there, and that’s another 10 billion. Truly, this is a very hungry future submarine.<sup>7</sup>

Defence deserves sympathy on timelines because of politics as well as complexity. In this telling, the figure of Tony Abbott, prime minister from 2013 to 2015, looms large. After overthrowing Abbott as PM, one of Malcolm Turnbull’s first meetings was with Defence Secretary Dennis Richardson to discuss what became the 2016 defence white paper. Turnbull writes:

*“Dennis came straight to the point. ‘PM, you will by now have a copy of the draft Defence white paper. It’s a good piece of work. But part of it is complete and utter bullshit.’ Well, that got my attention. ‘It says,’ he continued, ‘that the future submarines can start to be delivered in the mid-2020s—so about ten years from now. That’s simply not possible. I told your predecessor this and he insisted that the 2020s date should go in and leave the problem for another government.’ I didn’t*

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4 Andrew Tillett, ‘Dud subs’ no more: Collins class removed from Defence Department list of concerns’, *Australian Financial Review*, October 3, 2017. <https://www.afr.com/politics/dud-subs-no-more-collins-class-removed-from-defence-dept-list-of-concerns-20171003-gyt5qc>

5 Australian National Audit Office, “Future submarine program—transition to design”, January 14, 2020. <https://www.anao.gov.au/work/performance-audit/future-submarine-program-transition-to-design>

6 Department of Defence, *2020 Force Structure Plan*, July 1, 2020. See Naval shipbuilding chart: [https://www.defence.gov.au/StrategicUpdate-2020/docs/Factsheet\\_Naval\\_Shipbuilding.pdf](https://www.defence.gov.au/StrategicUpdate-2020/docs/Factsheet_Naval_Shipbuilding.pdf)

7 Andrew Davies and Marcus Hellyer, “The very hungry future submarine”, *The Strategist*, November 5, 2019. <https://www.aspistrategist.org.au/the-very-hungry-future-submarine/>

*have to think too long about that—so I told Dennis we should include a completion date that matched reality, which was the early 2030s.”<sup>8</sup>*

And so it was that the delivery date of the Attack boats shifted from the mid-2020s to the 2030s. A wicked problem, indeed.

The strange submarine saga of the past decade has significant sliding-door moments, when decisions were made (or surfaced) to become today’s reality, while other different futures didn’t get through the door (the possibilities that sank).

The Collins agony and the political choices of the past decade have shaped where we are now. Give this a personality: call it Industry Oz, expressing the determination to build our own boats, the road we have been trudging for 40 years. Industry Oz could have several versions, and some choices we have shunned or bungled look like valuable, missed opportunities.

Contrast Industry Oz with another personality that nearly walked through a different door to a different place: Customer Oz—buying the new submarines off-the-shelf overseas.

A future sliding-door possibility is a nuclear-propulsion sub: Nuke-Powered Oz.<sup>9</sup>

The might-have-beens of Customer Oz and the what-ifs of Nuke-Powered Oz offer contrasts that illuminate the choices taken. The way Australia has pursued its partnership with France and Naval Group has hints of Customer Oz, thinking more like a buyer than a builder. The customer has discarded options in dealing with Naval Group that you would have expected a hard-headed Industry Oz to have kept available.

The flippant version of Customer Oz is that it would be cheap and cheerful. Australia would not be the builder, merely the buyer: sign the cheques, police the schedule and sail them home. We would have much less control over what we got, but the customer would off-load lots of angst and responsibility.

The serious version of Customer Oz is that it would be totally defence-driven, stripped of the ambitions and compromises of industry policy. The focus of Customer Oz would be the defence need in a darkening strategic era, operating within the parameters of quality and price. The spend would be defined by defence, not twinned with domestic economic imperatives.

Back in 2014, Customer Oz was our submarine future, and that future was Japanese.

## A Japanese submarine

If Tony Abbott had lasted as PM, he would have aimed for that mid-2020s target for new boats by torpedoing the bipartisan consensus on building submarines in Australia. We know now that Abbott lasted two years as prime minister (2013–2015). In 2014, though, that would have been a bizarre prediction. Slip through the sliding door to see a different reality unfold.

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<sup>8</sup> Malcolm Turnbull, *A bigger picture*, Hardie Grant Books, Melbourne, 2020, p.338.

<sup>9</sup> Peter Briggs, “Can Australia afford nuclear propelled submarines? Can we afford not to?”, ASPI Special Report, October, 2018. <https://www.aspi.org.au/report/can-australia-afford-nuclear-propelled-submarines-can-we-afford-not>

Over two elections (2010 and 2013), Abbott as opposition leader had clawed 25 seats from the Labor government. As the Liberal minister Christopher Pyne observes, the comeback Abbott engineered “was a remarkable achievement”.<sup>10</sup> Stress that: *remarkable*. Abbott was only the fourth Liberal leader to take the party from opposition to government. The others were Robert Menzies, who stayed as PM for 17 years; Malcolm Fraser, PM for over seven years; and John Howard, who was PM for nearly a dozen years.

Political arithmetic and history suggested Abbott would be a two-to-three-term PM, delivering a Customer Oz future. Recall that in 2014, Abbott’s defence minister, David Johnston, declared he would not trust the government’s Australian Submarine Corporation “to build a canoe”.<sup>11</sup>

That explosive “rhetorical flourish” was quickly disowned, but the Abbott government was paddling towards a Customer Oz outcome.<sup>12</sup>

Australia’s navy disliked the Japanese submarine, distrusting its technology and damning the boat’s range. In a different future where Abbott had lasted six to nine years as PM, Customer Oz would be today’s reality. We’d be working on our Japanese, not our French.

Abbott wanted submarines based on the Japanese Soryu class, designed and built in Japan.<sup>13</sup> He embraced Japan’s Abe Shinzo as a kindred conservative spirit.<sup>14</sup> Getting a Japanese-made sub would cement a quasi-alliance with Japan within the trilateral relationship with the US.<sup>15</sup>

Powerful arguments could have been mounted by Abbott: defence policy is too important to masquerade as industry policy. Every defence dollar must get the maximum bang for the buck. The Japanese sub would cost less and enter service quicker than an Australian build. Australia must move swiftly to deal with a deteriorating strategic outlook.

A couple of years after being deposed as PM, Abbott put the Customer Oz perspective this way: “Although surface ships can be cost-effectively produced here on a continuous build basis, the primary object of defence procurement has to be the most effective armed forces—not domestic job creation. We don’t build our jet fighters here, for instance, (although we do build parts for them) so why insist on a local build especially if there’s a big cost penalty?”<sup>16</sup>

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10 Christopher Pyne, *The insider*, Hachette Australia, Sydney, 2020, p. 116.

11 Jonathan Gul, “Defence Minister says he ‘wouldn’t trust’ Australian Submarine Corporation to build a canoe”, *ABC News*, November 25, 2014. <https://www.abc.net.au/news/2014-11-25/johnston-wouldnt-trust-submarine-corporation-to-build-a-canoe/5917502>

12 David Wroe, Peter Hannan and Latika Bourke, “Defence Minister David Johnston ‘regrets’ his shipbuilder ‘canoe’ comments”, *The Sydney Morning Herald*, November 26, 2014. <https://www.smh.com.au/politics/federal/defence-minister-david-johnston-regrets-his-shipbuilder-canoe-comments-20141126-11u27i.html>

13 Graeme Dobell, “Tony Abbott and a Japanese sub”, *The Strategist*, May 25, 2015. <https://www.aspistrategist.org.au/tony-abbott-and-a-japanese-sub/>

14 Graeme Dobell, “What Australia will do with Japan”, *The Strategist*, December 6, 2013. <https://www.aspistrategist.org.au/what-will-australia-do-with-japan/>

15 Graeme Dobell, “The new relationship of Japan with Australia”, *The Strategist*, July 14, 2014. <https://www.aspistrategist.org.au/the-new-relationship-of-japan-and-australia/>

16 Tony Abbott, “Submarines: why settle for second best”, Centre for Independent Studies, June 29, 2017. <https://www.cis.org.au/commentary/articles/transcript-the-hon-tony-abbot-mp-submarines-why-settle-for-second-best/>

In office, Abbott was reaching towards this argument slowly and softly. It would have been a fiendishly difficult debate—even within the Liberal Party—but this big policy argument sank before being launched.

After presiding over the final death of the Australian car industry, Abbott inched towards sinking the Australian submarine industry, running an “internal process” to choose the builder of the new submarine. Japan was entitled to think the deal was done. That changed when Abbott suffered an extraordinary caucus revolt in February 2015. A motion to “spill” the leader got 39 “yes” votes versus 61 to keep Abbott: about 40% of the caucus voted for an empty chair rather than the prime minister.

Scrambling for votes to avert the spill, Abbott agreed to the demand of South Australian Liberals for an open tender for the submarine contract.<sup>17</sup> The concession fed into the fundamental fight to have future subs built at Adelaide’s Osborne shipyard, birthplace of the six Collins-class subs.

The open tender became a contest between Japan, France and Germany. By September 2015, the caucus completed the job of dethroning Abbott. Building boats in Japan went with him.

In the cabinet reshuffle after Abbott’s fall, Adelaide MP Christopher Pyne became minister for industry, innovation and science. He writes of a Canberra meeting with Mitsubishi executives and the Japanese ambassador:

*“We had a wide-ranging and candid discussion about the submarine project, defence and the historical relationship between Australia and the three nations who were bidding—France, Germany and Japan. My suspicion that the Japanese believed they were likely to win was confirmed when I was told informally that only after this meeting did the Japanese bidders believe they might not win.”*<sup>18</sup>

As the tender process concluded, Turnbull worried that Abbott had encouraged Abe to believe the decision would be “political” and Japan would get the nod. Adelaide politics trumped Tokyo.

Calling Abe in April 2016 to tell him that France had won, Turnbull said the Japanese leader “felt, with some justification, that they’d been let down ... The political way in which the tender arose always had the potential to create awkward misunderstandings in Japan.”<sup>19</sup>

The sub saga became a minor strand in the dramas that saw the Liberal caucus depose the PM who’d led them to office. In turning away from Abbott, the Liberal government gave a passionate new push to Industry Oz.

In the struggle over building the new class of submarines in Australia or overseas, the industry side triumphed. Customer Oz bested Industry Oz. It was, though, an extreme test of the consensus that joins subs to industry policy—linking defence capacity and Australian content.

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17 Pyne, *The insider*, p.140-143.

18 Pyne, *The insider*, p.141.

19 Turnbull, *A bigger picture*, p.340-1.

## The industry policy puzzles

Australia has spent 40 years building its own submarines.

For subs (and ships) we do defence as industry policy. Build our own naval muscle and build our economy. Protect sovereignty and protect jobs. The capability must have Australian content. Submarines are the ultimate test of that content-capacity linkage: Defence must have the best kit, but as much as possible must be built in here.

Today's vogue phrase is the need for "Sovereign Industrial Capability", a concept hammered with more than 30 references in the 2020 defence strategic update and force structure plan.<sup>20</sup>

The Covid-19 pandemic has given new meaning to the defence discussion of the need for a robust and resilient industrial base.

We do not necessarily have sovereign industrial capability in priority areas, but we are planning to get it—or regain what we've lost. Australia now proclaims the need to "have access to, or control over the skills, technology, intellectual property, financial resources or infrastructure that underpins the [Sovereign Industrial Capability] Priorities".<sup>21</sup>

After 40 years on the submarine journey—and much longer on the ships—we still struggle for the sweet spot where defence need and industry policy unite. The struggle makes for passionate politics, proving that in the phrase "political consensus" keep your eye on the politics. The submarine consensus is a hull undergoing repeated pressure tests.

Malcolm Turnbull took industry policy to a rich new place with the largest ever peacetime defence industry investment program.<sup>22</sup> Turnbull's memoir argues the case for an Australian-built submarine:

*"Certainly, a foreign yard with current experience in building submarines will build faster and at less cost than an Australian yard would build the first one—but stress 'the first one'. We'll never have a sustainable continuous shipbuilding industry unless we start building ships and do so continuously. And if we want, over the decades to come, to develop an Australian advanced manufacturing sector, there is no industry more likely to provide the 'pull-through' stimulus' than defence, and no project more at the cutting edge than submarines—the most complex, sophisticated and lethal vessels in the fleet."*<sup>23</sup>

Turnbull's minister for defence industry and then defence minister, Christopher Pyne, says the vision is to remake our strategic industrial base through the Australian defence industry.

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20 Department of Defence, *2020 Defence Strategic Update and 2020 Force Structure Plan*, Canberra, July 1, 2020. <https://www.defence.gov.au/strategicupdate-2020/>

21 Department of Defence, *2020 Defence Strategic Update*, Canberra, July 1, 2020, p. 47.

22 Malcolm Turnbull, "Address at the 2017 Pacific International Maritime Exposition", Prime Minister, October 3, 2017. <https://www.malcolmturnbull.com.au/media/address-at-the-2017-pacific-international-maritime-exposition>

23 Turnbull, *A bigger picture*, p.341-2.

Because it's about *defence* industry—not just industry—a Liberal government adopted what Pyne calls “an uncharacteristically European *dirigiste* demonstration of government intervention in the market”.<sup>24</sup>

Pyne says the continuous shipbuilding program of the naval shipbuilding plan is the most detailed long-term guide for defence industry in Australia's history: “A drumbeat of new vessels at least every two years for decades is something Australia has never enjoyed before.”<sup>25</sup>

The program calls for the acquisition or upgrade of up to 23 classes of Navy and Army maritime vessels.<sup>26</sup>

The Turnbull government dived into the defence industry task with what Pyne describes as a combination of Turnbull's “enthusiasm and my overconfidence”.<sup>27</sup> Pyne's jest is more revealing than he intends on the shambles of making up industry policy as you go along and on the run.<sup>28</sup>

The submarine saga is strewn with missed options and strange turns: Labor's lost six years, the death of the car industry, the Abbott dash for a Japanese-made boat.

The Rudd-Gillard governments proclaimed the need for 12 new submarines but did not get going. These were the new-sub-stasis years.

Labor's focus was on fixing the Collins class and fixing the budget. Labor, ultimately, left the submarine choice to the Abbot government. Governments can't bind future governments; but governments can make big decisions that define the landscape and set the tide. Because of its new-subs-stasis, Labor made no such decision.

Abbott's government was willing to do some *defence* industry policy (yes to ships, no to submarines) but balked at industry policy: keeping the Australian car industry was dismissed as dire, dismal demi-dirigisme.

The Abbott government centralised ship-building in two cities, Adelaide and Perth. (sorry, Melbourne) but would do nothing more for our last two car manufacturers. A few mad moments of macho mocking from Canberra did much to hasten the departure of Holden and Toyota. In today's sovereign capability era, Canberra would be hugging the final two car makers, not hissing 'em out the door.

In the hierarchy-of-needs chart for defence industry, submarines and planes sit atop the triangle, supported by a broad array of complex manufacturing abilities (science and skills, investment and research). Losing cars from the hierarchy kicked out much that an advanced industrial economy needs to make its own ships and subs.

Australia will pump hundreds of billions into building and sustaining sovereign industrial capacity for defence, but in 2014 we wouldn't stump-up \$150-\$250 million to keep car

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24 Pyne, *The insider*, p. 243.

25 Pyne, *The insider*, p. 249.

26 Department of Defence, *Naval Shipbuilding Plan*, May, 2017. <https://www.defence.gov.au/navalshipbuilding/Docs/NavalShipbuildingPlan.pdf>

27 Pyne, *The insider*, p. 259.

28 Andrew Davies, “Shipbuilding—making it up as we go along”, *The Strategist*, May 18, 2018. <https://www.aspistrategist.org.au/shipbuilding-making-it-up-as-we-go-along/>

manufacturers till 2022. Instead, an industrial extinction event.<sup>29</sup> A lot of jobs gone. A lot of capability lost.

The “Yes” of today’s defence industry policy contrasts with the derisive “No” to industry policy just a few years back. The experience of the Collins class feeds into these twists.

## The Collins-class conundrum

*“The Collins class submarines are a great Australian engineering accomplishment. To go from no background in submarine production to building one of the best conventional submarines ever produced was a genuine national achievement. Its recognition elsewhere isn’t replicated here because a successful political campaign demonised it.”*

Kim Beazley, 2016<sup>30</sup>

A significant conundrum of the submarine saga—a sliding door Australia did not go through—is the decision not to build another generation of the Collins submarines.

The Defence Department abandoned the option of building a second generation of Collins long ago. And our partner in building the Collins, Sweden, was not even considered in the contest (between France, Germany and Japan) to create the new submarine.

Yet today we are building a new version of Collins through a life-of-type extension of the existing submarines. To extend life, we are going a long way down the road to a second-generation build. After casting off the option of building a new Son of Collins, we now have to create a small “s” son of Collins. Much of the technology we would have put into new submarines will now go into the existing boats.

The 2020 force structure plan says the cost of remaking Collins—extension plus sustainment—will be between \$3.5 and \$6 billion.<sup>31</sup> In the way of submarines, expect that \$6 billion figure to grow. Insight Economics notes that estimates of the life-of-type extension for Collins go as high as \$15 billion.<sup>32</sup>

Many factors fathered the decision in the last decade not to create a new-generation submarine, based on Collins.

First, politics, with its dimensions of dollars and debate, dithering and delay.

Second, the agonising process of turning the Collins from dud sub to beaut boat. The Collins sustainment was on Defence’s list of projects of concern for a record nine years.

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29 Jason Dowling, “Who killed the car industry?”, *The Sydney Morning Herald*, November 13, 2015. <https://www.smh.com.au/business/the-economy/who-killed-the-car-industry-20151112-gkx1c8.html>

30 Kim Beazley, “Australia’s future submarine—problems of politics”, *The Strategist*, May 5, 2016. <https://www.aspistrategist.org.au/australias-future-submarine-problems-of-politics/>

31 Department of Defence, *2020 Force Structure Plan: Naval shipbuilding factsheet*, July, 2020. [https://www.defence.gov.au/StrategicUpdate-2020/docs/Factsheet\\_Naval\\_Shipbuilding.pdf](https://www.defence.gov.au/StrategicUpdate-2020/docs/Factsheet_Naval_Shipbuilding.pdf)

32 Insight Economics, *Australia’s future submarine: Do we need a plan B?*, March, 2020. p.21. <https://submarinesforaustralia.com.au/sea/wp-content/uploads/Australias-Future-Submarine-Insight-Economics-report-11-March-2020.pdf>



Third, the quarrelsome marriage with Sweden; the legal battle over submarine intellectual property had divorce-court elements—a rerun of the relationship problems conducted as an argument about property and progeny.<sup>33</sup>

Fourth, Defence’s fears about getting the expertise for the evolution to a next-generation boat. Submarines need the right minds as well as lots of money.

On the politics of dollars and dithering, Labor’s defence policy platform when it won office in 2007 proclaimed that it would accelerate work on Australia’s next generation of subs “ahead of the current timetable which schedules first pass approval for 2011”.<sup>34</sup> Instead, we missed that target by five years. The Turnbull government did first pass in 2016.

Labor defence policy in 2007 thought “a developmental project involving the migration of evolved Collins class combat and ship control systems might be necessary”. By the 2009 defence white paper, Labor proclaimed the need for 12 new submarines.<sup>35</sup>

A decade ago, the stage was set for a second generation of Collins. Yet nothing happened. The first-pass window kept passing. The global financial crisis hit. Struggling to fix the Collins and balance the federal budget, Labor did not have the energy for a new submarine, and adopted a stop-gap remedy that kicked the problem into the future.

If Labor didn’t act on Collins, the Liberals couldn’t or wouldn’t. In opposition, the Liberals made much noise about the Collins’ problems and Labor failures. When Tony Abbott won government in 2013, Collins was more political pariah than the potential parent of the next-generation. History weighed heavy on Collins as Australia pondered its next submarine.<sup>36</sup>

Beyond the politics, the conundrum centres on the thinking in Defence and the Royal Australian Navy. Why didn’t the navy want a new version of Collins? Why didn’t Defence put Sweden in the mix? On those two questions, Marcus Hellyer (a sage on the workings of the Defence mind) judges that excluding the Swedes “is one of Defence’s most bizarre capability decisions”.<sup>37</sup>

The defence minister who was present at the creation of Collins, Kim Beazley commented in 2016 that it was “a shame the Swedes weren’t included in the bid”. While Beazley lauds Collins as a boat, he concedes it had become politically toxic: “Frankly, so politically poisonous had the atmosphere in Canberra around the Collins become, that I can understand departmental and governmental fears.”<sup>38</sup>

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33 Andrew Davies, “Collins IP: Australia and Sweden bury the hatchet”, *The Strategist*, May 16, 2013. <https://www.aspistrategist.org.au/australia-and-sweden-burying-the-hatchet/>

34 Kevin Rudd, Joel Fitzgibbon & Alan Griffin, *Election 07 Policy Document Labor’s Plan for Defence*. Australian Labor Party, November, 2007. <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id:%22library/partypol/HMW06%22>

35 Department of Defence, *Defending Australia in the Asia Pacific century: Force 2030*, Australian Government Defence White Paper 2009. <https://www.defence.gov.au/whitepaper/2009/>

36 For a detailed chronology of the new-sub saga, see papers published in and 2012 and 2020 by the Federal Parliamentary Library: Nicole Brangwin, *Australia’s future submarine*, Parliamentary Library background note, 2012. [https://www.aph.gov.au/About\\_Parliament/Parliamentary\\_Departments/Parliamentary\\_Library/pubs/BN/2011-2012/Submarines](https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/BN/2011-2012/Submarines). Nicole Brangwin, *Managing SEA 1000: Australia’s Attack class submarine*, Parliamentary research paper Series, 2020. [https://www.aph.gov.au/About\\_Parliament/Parliamentary\\_Departments/Parliamentary\\_Library/pubs/rp/rp1920/AttackClassSubmarines](https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp1920/AttackClassSubmarines)

37 Marcus Hellyer, “The compounding risk in Australia’s transition to new submarines”, *The Strategist*, February 6, 2020. <https://www.aspistrategist.org.au/the-compounding-risk-in-australias-transition-to-new-submarines/>

38 Kim Beazley, “Australia’s future submarine—problems of politics”, *The Strategist*, May 5, 2016. <https://www.aspistrategist.org.au/australias-future-submarine-problems-of-politics/>

Defence waved away claims of bizarreness by arguing there had been a hiatus in Sweden's submarine building and this gap posed an unacceptable risk. The claim that the game had moved far and fast was also deployed to attack a new generation of the Collins class — developing what we had would not deliver what Defence said we needed: a brand new design.

As Hellyer writes: “Defence testified that a study into the possibility of evolving the Collins ‘demonstrated that the design effort involved would be similar to a new design’. Ultimately Defence concluded that an evolved Collins ‘would not provide a beneficial, nor a low cost and low risk solution for the Future Submarine’.”<sup>39</sup>

Australia had the intellectual property for Collins, but doubted its intellectual and technical ability to create a new generation. Defence feared we did not have the critical mass of expertise to design and build a new boat.

Another with sage status, retired Australian rear admiral James Goldrick emphasises an old line offering a difficult truth: “The greatest restriction on naval expansion is draughtsmen not money.”<sup>40</sup> Canberra worried that it had the money but not the minds. That informs the whispered response to the criticism that Australia should be running a competition between a new version of Collins and the French-designed Attack class. Defence fears it will be fiendishly difficult to get the skills and smarts to achieve just one boat design.

As Goldrick told me:

*“The French may have realised the potential benefit to themselves of this process earlier than anybody else—apart from the fact that their boat was the best, according to the final Australian evaluation. What is happening all over the world is an increasing problem of continuity for the evolution of design because that requires there to be continued work. Almost nobody is building enough submarines, frequently enough, to be self-sustaining as a centre of design and enterprise. Even if you are building continuously, if you have a big break in your design effort, it’s very difficult to recover, as the British and even the Americans and Russians have experienced. Association with the Australian continuous build/batch upgrade scheme would help the French maintain critical mass and sustain their design skills.”*<sup>41</sup>

In 2017, Tony Abbott offered this critique of the process:

*“The Collins Class was designed in the 1980s, built in the 1990s, and then extensively modified and rebuilt in the noughties so that what was a very-good-sub-on-its-day could much more reliably take to sea. As things stand, the Collins will need to be upgraded and modernised again while we plan for its replacement. The whole point of the next submarine acquisition was to avoid the problems of the Collins—to find the submarine that could be brought swiftly into service with the least possible modifications—but what we have done so far risks an exact repetition. We’ve based our proposed sub on an existing*

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39 Marcus Hellyer, “The compounding risk in Australia’s transition to new submarines”, *The Strategist*, February 6, 2020. <https://www.aspistrategist.org.au/the-compounding-risk-in-australias-transition-to-new-submarines/>

40 Interview with the author, August, 2020.

41 Ibid.

*design but one that will need to be so extensively reworked that it's effectively a brand new submarine and our intention is to build it entirely in Australia.*"<sup>42</sup>

The stretching Attack-class timeline means Australia is committed to doing much of the work for a new generation of Collins to extend the life of the existing boats. The saga has many twists, and another big twist is a future option.

## The nuclear-powered option

Australia's two previous prime ministers have publicly pointed to the nuclear-powered option for submarines.

The Collins class and the planned Attack class have "conventional" power: diesel-electric propulsion. Switching to nuclear-powered would take the saga to a whole new depth.

The nuclear-powered musings of Tony Abbott and Malcolm Turnbull are a rare meeting of minds between two men united in little but their hatred for each other. Yet these two most dissimilar Liberal leaders do agree on the need to consider nuclear-powered subs.

Turnbull wrote in his 2020 memoir that shortly before his time as PM was "rudely interrupted" in 2018, he had taken the nuclear subs out of the too-hard basket and started to investigate again: "My judgement then, and today, is that this is a debate that will continue, so the government should make sure it's well informed."<sup>43</sup>

Abbott declared in 2017 that the taboo must be tackled: "Australia has not made a formal decision against acquiring nuclear-powered submarines, so much as studiously avoided even asking the question."<sup>44</sup>

Recalling that Abbott's prime ministership crashed a few days short of the two-year mark, it is remarkable he proclaims his biggest regret from that time as PM was not challenging the nuclear-no-go mindset:

*"In the Abbott government's discussions about getting the best possible submarine for Australia as quickly as possible, we more or less assumed that our (currently limited) nuclear engineering capacity precluded that option. Creating a nuclear industry to service subs here would take a decade, perhaps more, yet might turn out to be a lesser challenge than designing and building a new class of submarine almost from scratch. Within the 15-plus years that it's currently planned to take to get even the first of our new conventional subs into service, we could develop a nuclear servicing capability—and if we were to buy or lease a US submarine it could initially be supported at the American bases in Guam and Hawaii. In the 1960s, we relatively swiftly developed a civilian nuclear capacity, mainly for medicine, centred on the Lucas Heights facility in Sydney. So it can be done if the will is there."*<sup>45</sup>

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42 Tony Abbott, "Submarines: why settle for second best", Centre for Independent Studies, June 29, 2017. <https://www.cis.org.au/commentary/articles/transcript-the-hon-tony-abbot-mp-submarines-why-settle-for-second-best/>

43 Malcolm Turnbull, *A bigger picture*, p. 344.

44 Tony Abbott, "Submarines: why settle for second best", Centre for Independent Studies, June 29, 2017. <https://www.cis.org.au/commentary/articles/transcript-the-hon-tony-abbot-mp-submarines-why-settle-for-second-best/>

45 Ibid.

Turnbull says any country with a nuclear navy has to have a civil nuclear industry. Australia would have to justify that shift to create a nuclear industry “by its support for the navy rather than its offer of cheap electricity. It would need long-term, bipartisan support and well over a decade would be needed to establish the pool of skilled personnel in every field to support it.”<sup>46</sup>

The two former prime ministers confront the question of whether the US would sell or lease nuclear-powered subs to Australia. Abbott says we won’t know if we don’t ask:

*“The US already provides Australia with its most advanced aircraft and tanks and its most sophisticated submarine torpedo weapons system. The US has previously provided Britain with its most sensitive nuclear submarine technology ...We have nothing to lose from starting a discussion on this issue with our allies and friends—Britain and France—as well as primarily with the US.”*<sup>47</sup>

Turnbull, though, accepts that leasing US nuclear submarines would give Washington an effective veto over an Australian capability—especially if the boats had to go to Guam or Hawaii for maintenance:

*“There’d be no point in us having a nuclear navy if it wasn’t completely sovereign and able to be operated by, and at the direction of, the Australian government. That means the submarines and their nuclear power plants would have to be maintained in Australia.”*<sup>48</sup>

In looking at whether Australia could afford nuclear-propelled subs, retired rear admiral Peter Briggs posed an opposing question: “Can we afford not to?”<sup>49</sup> Briggs’ study found “compelling strategic and submarine capability arguments” for switching to nuclear propulsion. Among the “formidable challenges” are the lead time, estimated by Briggs at 15-20 years.

With France, Australia is building Attack-class submarines that are cousin to the French Barracuda nuclear-powered boats.<sup>50</sup> And that nuclear capability is one element in Australia’s decision to partner with France rather than Germany or Japan, as Turnbull states: “It wasn’t the reason for the choice, but accepting the French submarine bid, as opposed to the Japanese or German bids, at least gives us a potential option to move to a nuclear design in the years ahead.”<sup>51</sup>

So, the reason for going with the French bid was not the nuclear-powered heritage of the French design. But going with the French offers the nuclear-powered *option*.

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46 Turnbull, *A bigger picture*, p. 344.

47 Tony Abbott, “Submarines: why settle for second best”, Centre for Independent Studies, June 29, 2017. <https://www.cis.org.au/commentary/articles/transcript-the-hon-tony-abbot-mp-submarines-why-settle-for-second-best/>

48 Turnbull, *A bigger picture*, p.343.

49 Peter Briggs, “Can Australia afford nuclear propelled submarines? Can we afford not to?”, ASPI Special Report, October, 2018. <https://www.aspi.org.au/report/can-australia-afford-nuclear-propelled-submarines-can-we-afford-not>

50 Brendan Nicholson, “France launches first nuclear-powered cousin of RAN’s new submarines”, *The Strategist*, July 30, 2019. <https://www.aspistrategist.org.au/france-launches-first-nuclear-powered-cousin-of-rans-new-submarines/>

51 Turnbull, *A bigger picture*, p.344.

Reaching for that nuclear option would confront what has been anathema to Australia. The Labor and Liberal parties would have to agree. The people would have to be persuaded. There's the small matter of building the nuclear industry. And Australia would have to do a lot of talking and explaining to our neighbours in Southeast Asia and beyond.

All that could only happen in a darkening strategic environment—which is what we confront. As Prime Minister Scott Morrison notes, Australia is entering “a post-Covid world that is poorer, that is more dangerous, and that is more disorderly”.<sup>52</sup> Tough times will put more twists into the saga by stressing what submarines offer to Australian strategy.

## Strategy and nightmares

Submarines are a top-of-the-budget answer to a top-of-the-pile nightmare.

The argument for submarines lies within the fundamental call on any nation: defend the realm and protect the currency (proving the oldest-profession status of strategists and economists in the state-building game). Submarines touch both bits of the realm—currency injunction: new boats to defend the borders cost a cornucopia of cash. While economists reside in gloom, strategists dwell in horrors: dream up the worst possible scenario and then defend against it. Strategy wonks speak of low-probability, high-impact events.

To argue from first principles, submarines are what you have for the ultimate military nightmare—hostile forces coming to harm your territory. It has only happened once in the history of this Commonwealth, a high-impact moment that consumed all else. The 1942 experience is the existential fright that haunts Australian strategy.

Submarines have other uses, yet Australian voters are happy to simplify by embracing the first-principles thought: submarines stop a foe from stepping foot on the nation that has its own continent. Date that view from the first decade of federation.

The saga began life with Prime Minister Alfred Deakin's parliamentary statement on defence in December, 1907. Acting on advice from the Admiralty in London—but contrary to Australian naval experts—Deakin announced that his government had decided “the submarine is probably the best weapon” for defence of Australia's harbours. The idea was to have one or two submarines for each Australian state, so a fleet of up to 12 subs.<sup>53</sup>

In what became a familiar problem, the future submarine fleet had not been ordered when Deakin ended his second term as PM, in November 1908. Submarines can torpedo the most decisive of cabinets, leaving them divided and far from port.

The saga is well into its second century, and a fundamental point still surfaces: What's the point of submarines? When writing this piece, I had an exchange of thoughts with one of the smartest men I know in Canberra, an economist with a long history in the policy jungle. He is a master at posing the simple Delphic question that forces lots of devilish detail through its paces. And my master posed this question:

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52 Scott Morrison, “Address—launch of the 2020 Defence Strategic Update”, Prime Minister, July 1, 2020. <https://www.pm.gov.au/media/address-launch-2020-defence-strategic-update>

53 J.A.LaNauze, *Alfred Deakin, a biography*, Vol. 2, Melbourne University Press, 1965, p.526.

*Although I try to take an interest in these things, I really don't know why Australia needs submarines. What—exactly—do we want them for? I really don't know. We're spending at least \$100 billion (probably more) on something which somebody like me has no idea what it's for. I've been keeping an eye on the literature. This matter—i.e., what we actually get from the submarines—doesn't seem to be explained. I guess I'm slow, right? But my bet is that I'm not the only one.*

Here is a fine reminder of an enduring truth: the Canberra defence consensus is not always what the rest of Australia understands or believes. Whenever military types berate me for the ignorance of journalists about defence, I respond they should be grateful to us: we are merely demonstrating how the rest of the population live in a different place with a sky of a different colour.

On why subs are vital, turn to two politicians responsible for explaining defence to the voters.

First, Defence Minister Linda Reynolds:

*"Submarines are fundamentally important to our defence strategy. They are a unique—and powerful—deterrent to any adversary, and they are critical to protecting our national security interests. Submarines secure Australia's strategic advantage—through leading-edge surveillance and the protection of our maritime approaches.*

*"Our sophisticated level of interoperability with the United States is a critical aspect of our submarine operations in our region. As are our air warfare destroyers and also anti-submarine warfare frigates. Submarines are also the vanguard of strategic lethality and deterrence. With substantial firepower, with stealth, with endurance and also with sustained presence.*

*"Our regionally superior Collins-class submarines are already very capably demonstrating all of these effects. We will see further refinements to our future Attack-class submarines—ones that will strengthen our capability to maintain peace and security in our region."*<sup>54</sup>

Singing from the same page, Labor's deputy leader and shadow defence minister, Richard Marles, says Australia's national security "desperately requires" the evolution of its long-range submarine capability:

*"Australia having the power to deploy this capability, with its lethality, a long way from our shores is the single biggest question mark that we can place in any adversary's mind. So, when we buy a submarine, we buy that question mark. They are a powerful deterrent. And more than any other military platform that Australia has today, submarines can shape our strategic circumstances in a way which empowers our nation and gives Australia sovereignty."*<sup>55</sup>

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54 Linda Reynolds, "Speech—Australian Strategic Policy Institute", Defence Minister, July 2, 2020. <https://www.minister.defence.gov.au/minister/lreynolds/speeches/speech-australian-strategic-policy-institute>

55 Richard Marles, "Address to the National Press Club", Deputy Leader of the Australian Labor Party and Shadow Defence Minister, August 4, 2020. <https://www.richardmarles.com.au/wp-content/uploads/2020/08/20.08.04-ADDRESS-TO-THE-NATIONAL-PRESS-CLUB.pdf>

Submarines always ask Australians how much we want to spend on insurance. You can make the argument that nearly \$100 billion is a lot for one form of indemnity. Or that there are cheaper ways to get what we need.

The cheaper/other ways line comes up against lots of institutional resistance. Not least the military replacement syndrome. The military likes to replace what it is used to with more of the same, just a better version. The navy loves what it knows and knows what it loves, and always wants to go to sea in ships and boats.

At the publication where I write a weekly column, *The Strategist*, submarines are the gift that keeps on giving: we have covered the arguments for big submarines, little submarines, conventional submarines, nuclear submarines and no submarines, and the claim that we have now chosen a preposterous submarine.<sup>56</sup>

While Australia's geography does not change, the way strategists think about what we might face in the sea–air gap has certainly evolved.

Once, the nightmare was Indonesia. In the same way we had F-111 fighter bombers so we could bomb Jakarta, we got submarines to stop Jakarta coming to us. Australia signed up the F-111s in 1963, the same year the navy ordered the Oberon-class boats. The Cold War was the context, but Indonesia was the danger.

Indonesia, as always, looms with the inevitability of geography. It is still the case, as Paul Dibb observed, that “the archipelago to our north is the area from or through which a military threat to Australia could most easily be posed”.<sup>57</sup> That is an argument for embracing and knowing the archipelago, not just building submarines. Indonesia's President Joko Widodo was stating aspiration as well as noting geography with his Canberra speech in February, 2020: “Australia is Indonesia's closest friend.”<sup>58</sup>

When we got the Oberon class boats and then built Collins last century, China was a wisp of smoke on our strategic horizon, and the insurance was against Indonesia. Slowly we have shifted to the possibility of Indonesia as friend and shield, not threat. Indonesian intentions can change, but this century Australia has warmed to the idea that the nightmare will come through, not from, the archipelago.

By 2009, when Prime Minister Kevin Rudd embraced a dozen new submarknes, it was all about China. And China keeps looming larger. In the 2020 strategic update (as in the 2009, 2013 and 2016 white papers), China supplants Indonesia to take second spot in the hierarchy of countries most mentioned.<sup>59</sup> The 2020 strategic update is relatively blunt, as a policy statement, in talking about what Australia fears. Goodness knows what the secret version is like, given the darkness of the public document.

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56 Andrew Davies, “Click go the readers: The Strategist top 10 in 2017”, *The Strategist*, December 22, 2017. <https://www.aspistrategist.org.au/click-go-readers-strategist-top-10-2017/>

57 Paul Dibb, *Review of Australia's defence capabilities*, Report to the Minister for Defence, Australian Government Publish Service, Canberra, 1986, p. 4. [https://www.defence.gov.au/SPI/publications/defreview/1986/Review-of-Australias-Defence-Capabilities-1986\\_Part1.pdf](https://www.defence.gov.au/SPI/publications/defreview/1986/Review-of-Australias-Defence-Capabilities-1986_Part1.pdf)

58 Graeme Dobell, “The four compass points of Australia-Indonesia relations”, *The Strategist*, February 17, 2020. <https://www.aspistrategist.org.au/the-four-compass-points-of-australia-indonesia-relations/>

59 Graeme Dobell, “Australia's Defence White Papers by the Numbers”, *Security Challenges*, The Institute for Regional Security, September, 2016. [https://regionalsecurity.org.au/security\\_challenge/australias-defence-white-papers-by-the-numbers/](https://regionalsecurity.org.au/security_challenge/australias-defence-white-papers-by-the-numbers/)

In the canons of Defence, it is a huge moment that the 2020 update scrapped the 50-year-old doctrine that we would have 10 years' warning of a state preparing to invade/harm/attack Australia. No longer do we have the comfort that it would take a potential adversary 10 years to prepare and mobilise for a war that would reach us. A fundamental change of Defence theology speaks of a mighty disturbance in heaven.

Scott Morrison shares elements of the submarine saga with Alfred Deakin: time available tangles with threat possibilities, seeking answers about the technology and the terrain. Complexity battles with cost.

Canberra is seized by the worry that it has not got enough insurance. Our policy payments mount, but the coverage we want from the Attack class will arrive closer to 2040 than 2030. The new submarine is vital yet vexed, a wicked problem for Australia in what loom as wicked days.

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