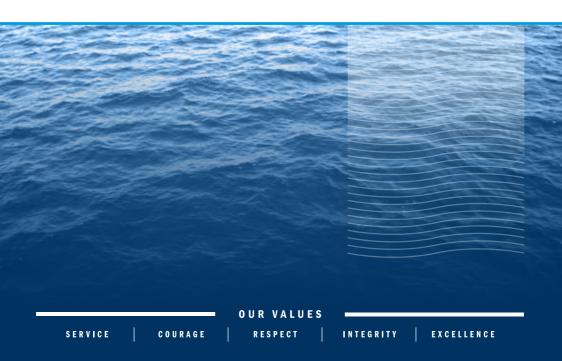






WHY AUSTRALIA HAS A NAVY

2022





Australia is a Maritime Nation

As an island nation, the sea is Australia's lifeblood. We are dependent upon it. Our trade travels by sea, and thus our economy, our prosperity, and our way of life count on the sea. Good order at sea is vital to our Nation's economic and environmental welfare, and vital to our national security.

Recognising that many people are unfamiliar with the sea beyond the beach,¹ this text illuminates the relationship of Australia to the sea, and the role that the Navy plays in serving the national interest.

The Unforgiving Sea

Writing in 1759, Samuel Johnson^a said: "... No man will be a sailor who has the contrivance to get himself in gaol, for being in a ship is being in a gaol, with a chance of drowning...A man in gaol has more room, better food and commonly better company..."²



Royal Australian Navy ships HMAS Canberra and HMAS Anzac sail in company with Royal Thai Navy ships HTMS Bhumibol Adulyadej and HTMS Ratanakosin during exercise AUSTHAI as part of Indo-Pacific Endeavour 21

a Samuel Johnson assembled the first English dictionary. Published in 1755 it is among the most influential texts ever published in any language. Johnson accomplished this work single-handedly, and until the Oxford English Dictionary emerged 173 later, Johnson's was the pre-eminent dictionary in English.

Though creature comforts have improved for people at sea today, Johnson exposes the enduring hardship of the sea, a place where human insignificance is made plain by nature's power, by weather, isolation, the political vacuum, the scarcity of fresh water, the absence of landmarks, and the lack of formed roads. For Auden,^b the sea is "barbaric, vague and disordered," "an place to be, if you can help it, and to try to cross it betrays a rashness bordering on hubris." Similarly, the historian John Mack argues that the sea is widely seen as hostile and unforgiving, an unwelcoming wilderness framing the stage upon which we live. In English, says Mack:

The phrase 'all at sea' carries with it the sense that someone is completely and utterly lost. This is the sea as wilderness, as a place without paths or distinctive marks. Once in its midst, the fear of becoming irretrievably disoriented is inescapable.⁵

Beyond the beach and the shore, the oceans are vast and confronting; anarchical, intrinsically hostile to humankind, and yet paradoxically, elemental to human flourishing. Our oceans are a stage for war, for diplomatic exchange, for piracy and for peaceful commerce. They are, as Robert Louis Stevenson^c has it, "our approach and bulwark." ⁶

Though for many Australians the nation is girt by beach; the oceans and the Navy are deeply and powerfully critical to Australia's security and prosperity.

Die Seeschlacht bei Salamis (The Sea Battle of Salamis) by Wilhelm von Kaulbach, 1868

Why Australia has a Navy

The Royal Australian Navy serves the Nation's interests in war, and in peace.

In war, the Navy will serve to defeat the adversary's blockade and to project Australian power. In peace, the Navy serves to secures the sea as a source of resources and as a means of trade and information exchange.⁷

The noted professor of strategy and international relations, Colin Gray,^d boils things down: "navies serve at sea only for the strategic effect they can secure ashore, where people live." The Royal Australian Navy does this in three main ways. In war, the Navy will exercise military hard power. In peace, the Navy undertakes constabulary and diplomatic duties.

b Wystan Hugh Auden (1907 - 1973) was an Anglo-American poet won the Pulitzer Prize for poetry in 1947. He was Professor of Poetry at Oxford until 1961.

c Robert Louis Stevenson (1850 - 1894) was a Scottish novelist, essayist, poet and travel writer. He is best known for Treasure Island, Dr. Jekyll and Mr. Hyde, and Kidnapped.

d Colin S. Gray (1943 - 2020) worked at the International Institute for Strategic Studies and the Hudson Institute. He served as a defence advisor to the United States and the United Kingdom governments.

Figure 1. The span of maritime tasks. The original from Ken Booth. 9e



The Royal Australian Navy



HMAS Australia I, HMAS Encounter, HMAS Huon, HMAS Tattoo

The Navy serves the Nation's interests at sea, in peace and in war.

The Navy approaches war as a last resort. Our Navy fights only to defend our nation, or to uphold the rules based global order. And we fight to win.

Ours is not a militaristic nation, nor a militaristic service.

We do not glorify war. We do not seek to fight. But we recognise, as Hobbes^f has it, that "Covenants, without the sword, are just words." And we recognise, as Hannah Arendt^g reminds us, that "national independence, namely freedom from foreign rule, and the sovereignty of the state" that depend upon a capacity for national self-defence. We recognise that some things are worth fighting for. This is to recall John Stuart Mill:

War is an ugly thing, but not the ugliest of things: the ugliest thing is the society that will not fight to protect other human beings, that will not fight against tyranny or injustice. The ugliest thing is the nation which will stand for nothing.¹²

Since we are committed to justice, we recognise that there are times when, though war will be tragic, the greater tragedy will be in not fighting. We recognise that when people are no longer prepared to bear the costs and the burden of their defence that democracy, and the rule of law will wither.

In Australia, citizens are equal, each entitled to equal justice under the law.

In the Navy we serve together as citizens prepared to defend right and the law. We stand alongside those who have gone before us, alongside those who have shown courage, and endured hardship because they shared a sense of duty.

WHY AUSTRALIA HAS A NAVY

e Ken Booth is a British international relations theorist and the former E.H. Carr Professor of International Politics.

f Thomas Hobbes (1588 - 1679) the English philosopher whose thinking is foundational to modern political philosophy.

g Hannah Arendt (1906 - 1975) a political theorist, noted as one of the most important political thinkers of the twentieth century.

h John Stuart Mill (1806 - 1873) an English philosopher and economist known as one of the founders of liberalism.

We do not glorify war over peace.

We do not set one nation over another. Nor one religion or faith over another. We serve right against tyranny, and justice over injustice.



HMAS Sydney fires an Evolved Sea Sparrow Missile for the first time during Combat System Sea Qualification Trials in the Southern Californian Exercise Area off the coast of the United States.

Maritime Security

In a commonplace shorthand, navies serve the ends of maritime security; a term which enjoys no definitive meaning. At face value, the idea of maritime security involves protection from direct threats to the territorial integrity of a state.¹³ In other words, maritime security suggests good order at sea.¹⁴ The Council for Security Cooperation in the Asia Pacific is illuminating:

Good order at sea permits countries to pursue their maritime interests and develop their marine resources in an ecologically sustainable and peaceful manner following international law. Hence, a lack of good order at sea is evident [in] illegal activity at sea or inadequate arrangements for the safety and security of shipping.¹⁵

Briefly, "good order at sea" is about prosperity, which comes from secure sea trade and maritime resources. Sea trade is made secure, and maritime resources are protected, since navies enforce the international law.¹⁶

Borrowing from J. R. Hill, the enforcement of good order is as much a responsibility as a right. It entails creating the conditions in which the peaceful use of the sea can be equitably and safely carried on. ¹⁷ Evidently - perhaps largely - the responsibility for good order depends upon navies. Yet the spectrum of operations required to ensure good order requires the involvement of other agencies; ¹⁸ gathering intelligence about merchant shipping traffic, fishing vessels, oil and gas drilling and production platforms, and foreign warships. ¹⁹

Sea Power

Borrowing from Bernard Brodie, sea power has never meant merely warships. Sea power involves warships, merchantmen, shore installations, and land-based assets, and geography which enable a nation to profit from the sea and to control transportation by sea during war time. Pointing to the complexity of sea power, Brodie says an aircraft which contributes to control of the sea is an instrument of sea power. Likewise, soldiers who might secure port facilities, or straits express sea power.²⁰

In a like manner, the Australian professor of international relations, Hedley Bull, takes "sea power" to be a much larger idea than "naval power." Beyond the narrow terms of naval power, Bull realises sea power involves the merchant marine, fishing fleets, oceanographic fleets, and maritime industry. Bull also appreciates the sea intersects with the land the air. In other words, a naval vessel must face threats from the land and the air as

WHY AUSTRALIA HAS A NAVY

Bernard Brodie (1910 - 1978) an American theorist known for developing nuclear deterrence strategy.

Hedley Bull (1932 - 1985) was a noted Australian strategist, and Montague Burton Professor of International Relations at Oxford until his death in in 1985.

well as from other naval surface ships and from submarines.²² Equally, naval ships or submarines might target the adversary in the air, or deep inland.

Accepting that the term "sea power" implicates a complex social-political-industrial-economic ecosystem, this text takes a narrow view using the term as a synonym for naval power, to mean "military power brought to bear at sea."

Offering a preface, to Australian Maritime Operations, this introduction overviews the reason states seek sea power.



A Royal Australian Air Force P-8A Poseidon flies past (L-R) HMAS Ballarat, HMAS Canberra, USS New Orleans, USS America, and JS Makinami during the Large Scale Global in the Western Pacific

Why do States Want Sea Power?

States seek sea power for three broad reasons: the projection of power and strategic deterrence, to protect seaborne trade, and to secure marine resources.

The Projection of Power and Strategic Deterrence



HMAS Stuart conducts a live Harpoon Missile firing off the coast of Hawaii during

Exercise Rim of the Pacific 2020

The projection of power against land targets is a familiar naval task. We see this conventional projection of power in naval bombardment of the shore, or the landing soldiers on amphibious operations. Over more recent decades, the development of strategic ballistic weapons offers this task a new dimension and a new relevance. This importance is in strategic deterrence. Seaborne strategic deterrence weapons, using the sea as a base from which strategic land targets might be threatened, fall outside the narrow construction of sea power as "military power brought to bear at sea." But seaborne strategic deterrence presupposes power at sea, since strategic deterrent forces must be shielded from detection and defended from attack, at sea. As well, states threatened by strategic forces will seek to detect and destroy the adversary, at sea.²³

The use of sea power as a platform for strategic deterrence weapons guarantees a wholly military relevance for sea power.²⁴ The larger utility of sea power involves economic advantage, since states seek sea power: to protect their sea trade from depredation, and to acquire or to enlarge, their share of the sea's resources.

The Projection of Seaborne Trade

The need to secure seaborne trade was noted by the United States naval officer, historian and strategist, Alfred Thayer Mahan, who saw the sea as "a great highway" or a "wide common" which provides nations with a cheap and efficient means to trade, and a valuable means of military transport.

On Mahan's account, navies protect trade - ensuring trade routes, the "sea lines of communication," remain available. In other words, navies protect merchant ships. The continuing relevance of this claims is in the argument of Dr. James Schlesinger who, as U.S. Secretary of Defense, said:

The seas have been and remain - despite the continuing revolution in air transportation - the great highway upon which, in peace and war, vast quantities of goods must travel. Though states today vary enormously in the degree of their interest in sea lines of communication and, even more, in



HMAS Toowoomba escorts a merchant vessel in the Southern Arabian Gulf in support of the International Maritime Security Construct as part of her six month deployment to the Middle East

their ability to protect them, the safeguarding of sea lines of communication is, of course, a special preoccupation of the United States and her allies, and every state that possesses sea power is concerned, at least within its home waters, with preserving its own use of the sea as a means of communication and denying adversaries as a way of attack.²⁵

To Secure or to Acquire Marine Resources

In Mare Liberum (1609), Grotius¹ contended the sea was an inexhaustible source of resources. Hallmarked by John Seldon,^m our modern consciousness of the sea's limits is different. In Mare Clausum (1635), Seldon said: "Yea, the plenitude of such seas is lessened every hour, no otherwise than mines of metal, quarries of stone or gardens when their treasures and fruits are taken away."²⁶

Since we recognise the sea's limits, we recognise the potential for resources conflict. The potential for conflict is not erased by the United Nations Convention on the Law of the Sea, because the Convention, which establishes exclusive economic exclusion zones stretching 200 miles from the coast, establishes the basis for disputed frontiers at sea.

Hedley Bull says: along with the scramble for legal rights over the resources of the sea and the seabed, there is a scramble for the military instruments that enable nations to make good on their claims - patrol boats, surveillance aircraft, anti-ship missiles, and so on and so forth. As well, Bull observes the potential for a new mercantilism, which is to say, the prospect that states will use force, not only to defend what is already legally possessed, but to seize resources belonging to others.²⁷

k Alfred Thayer Mahan (1840 - 1914) a United States Naval officer noted for his text, The Influence of Sea Power Upon the French Revolution and Empire, 1793 - 1812. In this text, Mahan explained how national power was inextricable from the use of the sea in peace or war.

I Hugo Grotius (1583 - 1645) was a Dutch lawyer who exerted a defining influence on the international law with two texts, Mare Liberum (The Free Seas) (1609) and De Jure Belli et Pacis (On the Law of War and Peace) (1625). Grotius wrote Mare Liberum to justify the claims of Dutch fishermen to poach in English waters.

m John Selden (1584 - 1654) was an English jurist who wrote Mare Clausum (The Closed Sea) (1631) to counter the argument of Grotius that the Dutch had a claim to fish in English waters.

Thus even if seaborne trade were to disappear, "and Mahan's concept of the purpose of sea power with it, in their interest in the sea's resources nations would still find a quite independent reason for seeking to exercise military power at sea." ²⁸



RAAF E-7A Wedgetail A30-003 from No 2 Squadron flies in formation with a No 6 Squadron EA-18G Growler and No 77 Squadron F/A-18A Hornets over a Royal Australian Navy convoy during Regional Presence Deployment 2020

Australian Geography

Observing "Australia is not a continent but an island," ²⁹ the Australian strategist T. B. Millarⁿ gestured to a paradox; the geography, which makes it difficult for a hostile power to invade and conquer Australia, also makes Australia dependent upon seaborne trade. In other words, Australia might not be vulnerable to invasion. But the hostile power does not need to invade

Australia. To defeat Australia, the adversary needs merely to control the sealanes upon which Australia relies upon for trade and prosperity.³⁰ °

In his 1902 Report to Parliament, the-then Captain Creswell made the point when he said:

The spectacle of some 5,000,000 Australians, with an Army splendidly equipped, unable to prevent the burning of a cargo of wool in sight of Sydney Heads, is only the ordinary consequence of a policy of naval impotence.³¹

Thus, in war, the Navy will serve; first, to defeat the blockade that would cripple the country and dissolve the strategic advantages of geography, and second to blockade the enemy, and third to project Australian power. In peace, the Navy secures the sea as a source of resources and as a means of trade and information exchange.³²

This claim is neither new, nor especially Australian.

In the late nineteenth century, Mahan identified "economic pressure, not battle, as the ultimate object of naval force. Over time, combat became ever less pronounced and economics ever more so in [Mahan's] explanation of sea power. Mahan [thus] became a pioneering thinker about the importance of naval power in a globalised world economy.³³

Mahan saw economic wealth is largely a function of the flow of international trade and spin-off commerce, not a function of raw production capacity. As well, Mahan recognised economic interdependence between nations has a myriad of implications for sea power. Mahan understood that if one does not understand the relation of sea power to economic power, one will be unable to use sea power effectively.³⁴

n Thomas Bruce Millar AO (1925 - 1994) a West Australian, Millar was the founding Head of the Strategic and Defence Studies Centre at the Australian National University and a major figure in the development of Australian strategic thought.

o Threats to Australian shipping would likely be from submarine and from sea mines. Any midocean submarine threat would be addressed - and perhaps diminished - by convoying and by the evasive routing of shipping away from major Indian and Pacific Ocean approaches to Australia. Sea mining or the threat of mining would be employed against the northern approaches and especially against the ports of Dampier, Port Hedland, Darwin, Gove and Weipa. Paul Dibb, Review of Australia's Defence Capabilities: Report to the Minister of Defence, (Australian Government Publishing Service: Canberra, 1986), p. 69.

[Mahan] became more and more convinced that systematic commerce destruction, through blockade - economic warfare - was the primary object of sea power. Destruction of the enemy's battlefleet might be a necessary means to this end, but only a means. Derangement of the enemy's economy, so as to corrode the stability of his society was the true end of naval force. In his own words: 'The object of a blockade proper is to embarrass the finances of a country by shutting its ports to foreign commerce, thus deranging one main feature of its general markets, and thereby bringing confusion into the whole economy.'35

It might seem that in time of war, the economic influence of navies comes to be relatively less important, as combat power comes to be relatively more important. But this is not so.

As the British theorist Julian Corbett^p says, military victory alone will not be sufficient to win a war. A war will be won only by "strangling the enemy's national life," 36 which is done by sinking merchant ships. Thus, Corbett says:

If the object and end of naval warfare is the control of communications [commerce] it must carry with it the right to forbid, if we can, the passage of both public and private property upon the sea. Now the only means we have of enforcing such control of commercial communications at sea is in the last resort the capture or destruction of sea-borne property.³⁷

We see an example from the Second War. While the Navy's surface fleet steamed toward Japan, the submarine force annihilated merchant traffic, cutting Japan from oil and reducing the population to near starvation. If it floated and proceeded in the wrong direction, the Navy sank it.³⁸



Australian Defence Force personnel on HMAS Adelaide line the flight deck as the ship returns to her home port of Fleet Base East in Sydney following a deployment on Operation Tonga Assist 2022

The Australian Vulnerability to Blockade

The importance of trade to the Australian economy - and the vulnerability of the Australian economy to blockade - is made plain in the 2019 Defence Mobilisation Review. Referencing an Engineers Australia Report,³⁹ the Mobilisation Review drew attention to the Australian dependence on imported refined liquid fuel.

Were an adversary to interdict - or even threaten - fuel shipments, the adversary would dissolve the defensive advantages of Australian geography. In the face of significant risk, Australia would likely be unable to persuade the owners of sea tankers to sustain supplies of refined liquid fuel to Australia. 40

Australia does not have a government-owned fuel stock but relies for fuel security on commercially owned stocks. These stocks are small, amounting to about 50 days' supply of crude oil, 59 days' of LPG, 20 days' of petrol, 19 days' of aviation fuel and 21 days' of diesel.⁴¹

Sir Julian Stafford Corbett (1854 - 1922) was a lawyer and strategist, and a consequential figure in the reform of the Royal navy in the early Twentieth Century. His most famous work, Some Principles of Maritime Strategy, remains a classic.

Were an adversary to sink sea tankers bringing refined liquid fuel to Australia (or to impose such a risk to sea tankers that companies refused to sail) the cascade of effects would be serious.

As diesel supplies are exhausted, it will become impossible to transport freight by road or rail. Food crops, milk, and live animals will not move from farms or feedlots. Processed food, pharmaceuticals and other essential goods will not move from warehouses.



Royal Australian Navy replenishment ship HMAS Supply sails past Nomuka Island in Tonga during Operation Tonga Assist 2022

Private cars and public transport will be inoperable. The inability to commute will mean economic distress and social isolation, including the inability to travel for work or for medical care or attention.

Liquefied Natural Gas Exports: Were an adversary to interdict Australian shipping, the export of liquid natural gas from Australia would stop. The excess would be burned (entailing economic waste and purposeless environmental damage), or accumulated in the gas storage and pipeline system, or reinjected into subsurface stores.

Water and Wastewater: The treatment of water relies upon chemicals. Without resupply by road, hundreds of tonnes of chemicals required to purify water might be expected to run out within one week.

Fertiliser and Pesticide: Agriculture demands enormous quantities of fertiliser and pesticide. In the Second World War, Australia had to get urgent supplies from the United States. But even were supplies in warehouses adequate, without diesel fuel these supplies would not be shipped to farms and in consequence, crop production would suffer.

Electricity: Gas-fired generators will not suffer from any disruption to shipping, since gas is piped. Gas fired generators would likely suffer from the interruption to supply which would follow from enemy action against rigs at sea. Coal-fired power stations would suffer from a disruption to the imports of liquid fuel. This is because, even if coal is available to be mined, a shortage of diesel will stop mining operations. Additionally, a shortage of diesel would mean coal will not be transported from the mine stockpile to the generator.

Regional and rural communities will suffer as diesel fuel runs out, since diesel is a fuel for generators. Over time, electricity-generating infrastructure will degrade as spare parts are exhausted and as maintenance teams are unable to move around.

Spare Parts: The "just in time" logistics model which was placed under strain during the COVID-19 pandemic will be placed under even more strain by disruption to liquid fuel supplies. Limited fuel means limited domestic freight movement. No liquid fuel means no domestic freight movement. As freight moves slowly and eventually stops, the materials, equipment and specialist parts required for the upkeep of infrastructure and for new projects will not be delivered. As stores run down, new projects will stop, and existing infrastructure will decay. Supply hoarding is a possibility.

Health: Since over 90 per cent of Australia's medicine is imported, any disruption to shipping will have a significant impact on health care. ⁴² As



Royal Australian Navy frigate HMAS Arunta departs Fleet Base East in Sydney on a regional presence deployment to South-East Asia

well, a large proportion of specialist medical equipment used in Australia is imported. However, even if the adversary did not disrupt the import of medicine and medical equipment the situation is still dire. This is because supplies of pharmaceuticals and medical equipment held by hospitals will be exhausted, and without sufficient diesel, resupply by road from warehouses will be impossible. Restriction on the supply of spare parts for medical equipment will compound degradation of the health system. The elderly will be especially affected, and if there is a disease outbreak, so will the unvaccinated. Health will also be affected by disruption to water and sewage management and to waste collection services - all of which will be degraded by restrictions on the supply of liquid fuel.

Fish and Fishing⁴³

Fish are a significant ecological and economic resource. The practice of fishing is similarly important since a fishing fleet offers competitor nations the means to gain advantage against Australia via non-military coercive activities.

Fish is the world's most traded commodity, contributing to the livelihood of 560 million people and the significant protein for three billion people. Yet regulatory frameworks are insufficient⁴⁴ and fish, in any event, are difficult to regulate. This is because fish are a trans-boundary resource.⁴⁵

The 1982 United Nations Convention on the Law of the Sea (UNCLOS) entitles coastal states to an exclusive economic zone, which extends 200 nautical miles from the coast. In this zone, a state has a sovereign right to marine resources and the right to control distant water fishers. Hous, the UNCLOS recognises the ecological and the economic value of fish, the need to regulate legal fishing, and the need to suppress illegal fishing.

Illegal fishing is fishing which does not comply with national or global fisheries conservation and management obligations. Illegal fishing can occur within zones of national jurisdiction or on the high seas. With the decline of wild fish stocks, the increasing incidence of illegal fishing is of concern to responsible fishing nations.

Illegal fishing wantonly depletes wild fish stocks below sustainable levels. Disregard for the environment through high levels of bycatch and the abandonment of gear and rubbish gives rise to further concern.^q

q Responsible fishing nations are concerned with intensive fishing which captures endangered species, since capturing endangered fish species places the global marine ecosystem in jeopardy.

After analysing global industrial fishing records, researchers from the University of Queensland and the University of Tasmania found 92 endangered and 11 critically endangered species of seafood were caught in oceans around the world. One-third of fished stocks are exploited at biologically unstainable levels. One in sixteen fish species are listed as threatened with extinction.

Intensive fishing which captures endangered species is possible for many reasons. Two reasons are obvious. First: fishing for species that are threatened with extinction is legal. Second: seafood sold in Australia does not have to be labelled according to its species. This means that the "fish," "flake," or "cod" that Australians typically order at the fish and chip shop could be critically endangered.

Leslie A. Roberson, Reg A. Watson and Carissa J. Klein, "Over 90 endangered fish and invertebrates are caught in industrial fisheries," in Nature Communications. https//doi. org/10.1038/s41467-020-18505-6.



Armidale Class Patrol boat HMAS Larrakia (II) sails towards Queen Salote Wharf, Nuku'alofa during an ADF visit to Tonga

Resources Conflict

Demand for fish is rising. 47 Yet under the pressures of climate change48 and intensive fishing - legal and illegal - wild fish stocks are declining.49 The upshot is this: fish are now a strategic commodity; ecologically imperative, and economically important. 50

Conflicts arise when one country consumes at an unreasonably high rate or violates agreed allowances.⁵¹

Canada has fired upon American fishers for allegedly poaching scallops. Scottish fishers have blockaded French super trawlers and poured oil on Russian catches. The Germans and Danes have traded insults and blows. Icelandic and French fishers have confronted the Royal Navy.⁵² During the mid to late 1990s, Canada fired on Spanish fishers upon the high seas. The

Spanish have exchanged shots with Portugal.53 The Royal Navy has chased Taiwanese fishers from the Falkland Islands protectorate. The Russian Navy deploys with its fishing fleet to "protect" it from foreign states like Japan. In March 2016, the Argentinean Coastguard sunk a Chinese fishing vessel by gunfire.⁵⁴ In March 2016, Indonesian authorities tried to arrest a Chinese vessel near the Natuna Islands, but a Chinese coast guard cutter rammed the Indonesian vessel to prevent the arrest. In December 2019, again near Natuna Island, Indonesia surged additional naval forces to counter Chinese fishing vessels in the Indonesian territorial seas.⁵⁵ Even Kiribati, with its Australian supplied patrol boat, has arrested foreign fishers at machinegun point.⁵⁶ Australia has used direct fire against illegal fishers.

Regionally, disagreements between fishers have resulted in escalated tensions between the governments. High technology compounds the issue of illegal fishing. High technology enables the modern fishing fleets of Japan, China, Korea and Taiwan to realise incredible catch rates, against which traditional fishers cannot compete.⁵⁷ In short, as fishing is an assertion of national power,⁵⁸ so securing fisheries is a basic sovereign responsibility.



HMAS Brisbane conducts officer of the watch manoeuvres with Japan Maritime Self-Defense Force destroyer JS Makinami, the Republic of Korea Navy destroyer ROKS Wang Geon and HMAS Parramatta, off the coast of Queensland during Exercise Talisman Sabre 2021



HMAS Adelaide sails past an oil rig platform during a patrol in the Bass Strait Oil Rig Restricted Area off the coast of Victoria

Oil and Gas:59

Were an adversary to force a halt to oil and gas production and export, the effect on the Australian economy would be severe.

In 2019, production of Australian crude oil and condensate60 reached 429,000 barrels a day. Real earnings from Australian crude oil exports are expected to peak at around AUD 11 billion in 2021.

In 2019, Australia exported 77 million tonnes of liquefied natural gas, worth AUD 49 billion, a sum that almost matched the entire goods and services revenue of Victoria for the same financial year.

By way of further comparison, revenue from coal for the same period was a record high AUD 26 billion. Revenue from iron ore was AUD 79 billion.

Beyond production numbers and the vast tally of revenue from exports, and beyond the astonishing engineering, the oil and gas industry gives rise to a complex socio-economic ecosystem, such that the value of the industry resonates throughout Australian society. Countless people derive their livelihood from work that owes its deep provenance to offshore oil and gas.

Similarly, beyond the dollar value of oil and gas, there is considerable value in super heavy engineering. And similarly, were the adversary to make the industry untenable, this value would be lost to the Nation.

Conclusion

In The Embarrassment of Riches, Simon Schama^r argued a nation's identity is formed in ideas.

Speaking about maritime ideas central to Australian political geography and grand strategy, this text asks us to reflect upon the Australian identity and the Australian reliance on the sea.

Accepting that Australia's security and prosperity depend upon the sea; upon unhindered sea trade, upon the capacity to seek for and to develop undersea oil and gas reserves, upon our fish stocks, and upon the unspoiled treasure of the marine environment, this text explains the Navy, and the importance of the Navy to the Nation.

The text explains that the Navy serves the Australian people; protecting our territory, our economy, our environment, and our way of life.

The Navy projects Australian power and good influence, reducing the prospect of threat to our Nation, to our broader interests, or to our allies and like-minded partners.

This text will let Australians better grasp the Navy which serves our nation.

Sir Simon Michael Schama (1945 -) is Professor of Art History at Columbia University, New York.

Endnotes

- 1 Commodore R. T. Menhinick, RAN, 2011 speech to the Lowy Institute.
- 2 James Boswell (ed. David Womersley) The Life of Samuel Johnson, (Penguin: London, 2008), p. 186.
- 3 W. H. Auden *The Enchafed Flood*, (Faber and Faber: 24 Russell Square, London, no date), p. 18.
- 4 W. H. Auden *The Enchafed Flood*, (Faber and Faber: 24 Russell Square, London, no date), p. 21.
- 5 John Mack, The Sea: A Cultural History, (Reaktion: London, 2011), p. 72
- 6 Robert Louis Stevenson, "The English Admirals," in Cornhill Magazine (July December 1878) 38, p. 36
- 7 Geoffrey Till, Seapower: A Guide for the Twenty-First Century, (Frank Cass: London, 2004), pp. 6, 7, 8, 12, 15, 16, 311, 314, 325, 116.

Norman Friedman, Seapower as Strategy: Navies and National Interests, (Naval Institute Press: Annapolis, 2001), pp. 3, 221 Friedman observes navies mount a reverse blockade against drug smugglers, human traffickers and illegal fishers.

Hedley Bull, "The new Environment: Sea Power and Political Influence," in Jonathan Alford (ed) Sea Power and Influence, (Gower and Allanheld, Osmun: Hampshire, 1980) pp. 3-4 citing Alfred Thayer Mahan, The Influence of Seapower Upon History - 1660 - 1783 (Methuen: London, 1965) Ch. 1.

8 Colin Gray, The Leverage of Sea Power: The Strategic Advantage of Navies in War, (New York: The Free Press, 1992), p. 1

Norman Friedman, Seapower as Strategy: Navies and National Interests, (Naval Institute Press: Annapolis, 2001), p. 4: Sea power matters because so much of the world is so close to the sea. Most of the world's commerce travels by sea, natural resources are extracted from the sea and from its bottom. For years, the U.S. Navy has used a dramatic night-time photograph to make this point. The well-lit centers of population and industry nearly match the coastline of continents.

- 9 Ken Booth, Navies and Foreign Policy (Routledge: Oxford, 2014), pp. 15 25
- 10 Cited in Hannah Arendt, On Violence, (Harcourt: United States, 1970), p. 5
- 11 Cited in Hannah Arendt, On Violence, (Harcourt: United States, 1970), p. 5
- 12 John Stuart Mill, "The Contest in America," in *Fraser's Magazine for Town and Country*, (February 1862), 65:386, pp. 258-268, p. 268.
- 13 Report of the Secretary General to the United nations General Assembly, (Report A 63/63) Oceans and the Law of the Sea: I, (United Nations General Assembly: New York, 2008), 15. The report states "most definitions also usually include security from crimes at sea, such as piracy, armed robbery against ships, and terrorist acts. However, intentional and unlawful damage to the marine environment, including from illegal dumping and the discharge of pollutants from vessels, and depletion of natural resources, such as from illegal, unreported and unregulated fishing, can also threaten the interests of States, particularly coastal States. Various approaches have been taken to maritime security, depending on the State's perspective of the interests that may be threatened, either directly or indirectly, by activities in the oceans and seas."

Sarah Percy, "Maritime Security," in *The Oxford Handbook of International Security*, ed. Alexandra Gheciu and William C. Wohlforth, (Oxford University Press: Oxford, 2018), 41.2.2. 6-8.

- 14 Christian Bueger, "What is Maritime Security," in Marine Policy, 53, (2015), pp. 159-160.
- 15 The Council for Security Cooperation in the Asia Pacific provides an informal mechanism for scholars, officials and others in their private capacities to discuss political and security issues and challenges facing the region.

http://www.cscap.org/index.php?page=principle-for-good-order-at-sea

16 James Kraska and Raul Pedrozo, International Maritime Security Law, (Martinus Nijhoff: Leiden and Boston, 2013), pp.16, 37

Christian Bueger, "What is Maritime Security," in Marine Policy, 53, (2015), pp.160-162.

- 17 J. R. Hill, Maritime Strategy for Medium Powers, (Naval Institute Press: Annapolis, 1986), p. 99.
- 18 J. R. Hill, "Medium Power Strategy Revisited," Sea Power Centre Working Paper No. 3, (Sea Power Centre of Australia: Commonwealth of Australia, 2000), p. 9.

Christian Bueger, "What is Maritime Security," in *Marine Policy*, 53, (2015), pp.159 - 164, p. 162.

- 19 J. R. Hill, Maritime Strategy for Medium Powers, (Naval Institute Press: Annapolis, 1986), p. 101
- 20 Bernard Brodie, *A Guide to Naval Strategy*, (Princeton University Press: Princeton, 1944) p. 2.
- 21 Hedley Bull, "The new Environment: Sea Power and Political Influence," in Jonathan Alford (ed) Sea Power and Influence, (Gower and Allanheld, Osmun: Hampshire, 1980) p. 3. Bull cites Admiral Gorshkov to make the point that civil maritime activities are ingredients in a nation's ability to exercise military power at sea. For example, merchant ships might carry soldiers and supplies while trawlers and scientific vessels might gather intelligence.
- 22 Hedley Bull, "The new Environment: Sea Power and Political Influence," in Jonathan Alford (ed) Sea Power and Influence, (Gower and Allanheld, Osmun: Hampshire, 1980) p. 3. Bull cites L. W. Martin, The Sea in Modern Strategy, (Chatto & Windus: London, 1967).
- 23 Hedley Bull, "The new Environment: Sea Power and Political Influence," in Jonathan Alford (ed) Sea Power and Influence, (Gower and Allanheld, Osmun: Hampshire, 1980) p. 4.
- 24 Hedley Bull, "The new Environment: Sea Power and Political Influence," in Jonathan Alford (ed) Sea Power and Influence, (Gower and Allanheld, Osmun: Hampshire, 1980) p. 5.

Contra Bernard Brodie, A *Guide to Naval Strategy*, (Princeton University Press: Princeton, 1944) p. 2.

- 25 Cited by: Hedley Bull, "The new Environment: Sea Power and Political Influence," in Jonathan Alford (ed) Sea Power and Influence, (Gower and Allanheld, Osmun: Hampshire, 1980) p. 4
- 26 John Seldon, Mare Clausum: The Right and Dominion of the Sea (1635) tr. J. H. Gent (London, 1663) p. 141 cited by Hedley Bull, "The new Environment: Sea Power and Political Influence," in Jonathan Alford (ed) Sea Power and Influence, (Gower and Allanheld, Osmun: Hampshire, 1980) p. 5
- 27 Hedley Bull, "The New Environment: Sea Power and Political Influence," in Jonathan Alford (ed) Sea Power and Influence, (Gower and Allanheld, Osmun: Hampshire, 1980) p. 5

- 28 Hedley Bull, "The New Environment: Sea Power and Political Influence," in Jonathan Alford (ed) Sea Power and Influence, (Gower and Allanheld, Osmun: Hampshire, 1980) p. 5
- 29 T.B. Millar, Australia's Defence, (Melbourne: Melbourne University Press, 1965), p. 30
- 30 T. B. Millar, *Australia in Peace and War*, (Australian national University Press: Canberra, 1978) p. 20.

Millar's argument is notarised by Paul Dibb in: *Review of Australia's Defence Capabilities: Report to the Minister of Defence*, (Australian Government Publishing Service: Canberra, 1986), pp. 67, 68, 69.

Norman Friedman, Seapower as Strategy: Navies and National Interests (Naval Institute Press: Annapolis, 2001) pp. 4, 232. Friedman says similarly: The sea can be a barrier to attack, and a highway leading to our enemies and to us. Naval power maintains the barrier. Naval weakness makes the sea an invitation to attack. At pp. 94, 95, Friedman explains blockade will involve a combination of sea power and economic measures. Blockade will be mitigated by internal lines and by the adoption of substitutes.

- 31 W. Creswell, *Defence of Commerce and Ports*, (Melbourne: Commonwealth of Australia, February 7, 1902), 149 This report was by Captain Creswell, Naval Commandant, Queensland, (Later to be the Chief of the Royal Australian Navy) on the best Method of Employing Australian Seaman in Defence of Commerce and Ports.
- 32 Geoffrey Till, Seapower: A Guide for the Twenty-First Century, (Frank Cass: London, 2004), pp. 6, 7, 8, 12, 15, 16, 311, 314, 325, 116.

Norman Friedman, Seapower as Strategy: Navies and National Interests, (Naval Institute Press: Annapolis, 2001), pp. 3, 221 Friedman observes navies mount a reverse blockade against drug smugglers, human traffickers and illegal fishers.

33 Nicholas A. Lambert, "What is a Navy For? Strategic Purpose is not the Same Thing as Operational Necessities." in *Proceedings* (2021) 147: 1418, no page number.

Mahan is referenced by Herbert W. Richmond, Sea Power in the Modern World, (Bell: London, 1934) p.129

- 34 Nicholas A. Lambert, "What is a Navy For? Strategic Purpose is not the Same Thing as Operational Necessities," in *Proceedings* (2021) 147: 1418, no page number.
- 35 Nicholas A. Lambert, "What is a Navy For? Strategic Purpose is not the Same Thing as Operational Necessities," in *Proceedings* (2021) 147: 1418, no page number.
- 36 Julian S. Corbett, Some Principles of Maritime Strategy, (Naval and Military Press: Sussex, no date) p. 81.
- 37 Julian S. Corbett, Some Principles of Maritime Strategy, (Naval and Military Press: Sussex, no date) p. 81.
- 38 Nicholas A. Lambert, "What is a Navy For? Strategic Purpose is not the Same Thing as Operational Necessities," in *Proceedings* (2021) 147: 1418, no page number.
- 39 Engineers Australia, *Industry Responses in a Collapse of Global Governance: Workshop Report for the Department of Defence,* (Engineers Australia, 11 National Circuit Barton, Canberra: February 2019).
- 40 Paul Dibb, Review of Australia's Defence Capabilities: Report to the Minister of Defence, (Australian Government Publishing Service: Canberra, 1986), p. 69.

41 IEA (2020), Oil Stocks of IEA Countries, IEA, Paris. https://www.iea.org/articles/oil-stocks-of-iea-countries

Also: https://www.energy.gov.au/government-priorities/energy-data/australian-petroleum-statistics

- 42 Philip Coorey, "Australia Dangerously Dependent on Medical Imports," in *The Australian Financial Review*. Feb. 18, 2020.
- 43 Australian Parliamentary Library Research Publication: https://www.aph.gov.au/About_ Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/BriefingBook44p/ Oceans
- 44 David Jensen, ed. Renewable Resources and Conflict, (The United Nations: New York, 2014), pp. 17-18.
- 45 M. Ranken, J. Gummer and J.G. Shepard, "Managing the Fisheries, "in Seapower at the Millennium, ed. Geoffrey Till, (Royal Naval Museum Publications: United Kingdom, 2001), p. 231.
- 46 James, C.F. Wang, *Handbook on Ocean Politics and Law*, (Greenwood Press: Connecticut, 1992), pp. 107 112.
- A. Boyle, A and C. Chinkin, "UNCLOS and the Process of International Law-Making," in *Law of the Sea, Environmental Law and Settlement of Disputes*, ed. Ndiaye and Wolfrum, (Koninklijke Brill: Netherlands, 2007), pp.373 381.
- 47 Juergen Voegele, Fish to 2030 Prospects for Fish and Aquaculture, (The World Bank: Washington, 2013), p. 3. China's demand for food fish is expected to increase and to represent 38 per cent of available fish resources by the year 2030.

John Kingwell, *Global Strategic Trends – Out to 2045*, (United Kingdom: Ministry of Defence, June 2014), pp. 2 – 22. The rising demand for fish has tracked growing affluence. As affluence has grown, so demand for protein-rich diets has increased. For example, China's demand for meat increased by 63 per cent between 1985 and 2009.

- 48 J. Spijkers, T.H. Morrison, R. Blasiak, G.S. Cumming, M. Osborne, J. Watson, James and H Osterblom, "Marine Fisheries and Future Ocean Conflict," in *Fish and Fisheries* 19:5 (2018), pp. 798–806.
- 49 José Graziano da Silva, *The State of World Fisheries and Aquaculture: Meeting the Sustainable Development Goals*, (Food and Agricultural Organisation of the United Nations: Rome, 2018), pp. 4-5.

Jade Lindley, Sarah Percy, and Erika Techera. "Illegal Fishing and Australian Security," in *Australian Journal of International Affairs*, 73:1 (2019), pp. 82–84.

Channing May, *Transnational Crime and the Developing World*, (Washington: Global Financial Integrity, 2017), pp. 61-63: Illegal, unregulated and unreported (IUU) fishing, accounts for up to 26 million tonnes of fish, or more than 15 per cent of the world's wild fish catch with an estimated annual value of US\$23.5 billion – US\$36.4 billion.

David Jensen, ed. *Renewable Resources and Conflict*, (The United Nations: New York, 2014), pp. 29-30.

Phillipe Le Billion, "The Political Ecology of War: Natural Resources and Armed Conflicts," in *Political Geography*, (2001), pp. 566 – 570.

29

Rafael Rueveny, "Conflict and Renewable Resources," in *Journal of Conflict Resolution*, 45:6, (2001), pp. 719 - 723.

50 Klaus Schwab and Børge Brende, *The Global Risk Report*, (World Economic Forum: Geneva, 2018), p. 30.

Nick Carter and Stephen Lovegrove, *Global Strategic Trends – The Future Starts Today*, (United Kingdom: Ministry of Defence, October 2018), p. 273.

- 51 David Jensen, ed. Renewable Resources and Conflict, (The United Nations: New York, 2014), p. 38.
- 52 James Cable, *Navies in Violent Peace*, (St. Martin's Press: New York, 1989), pp. 83-91 James, C.F. Wang, *Handbook on Ocean Politics and Law*, (Greenwood Press: Connecticut, 1992), pp. 131 137.
- 53 John Baden, "Democracies don't fight unless it's about Fish," in *The Seattle Times*, November 27, 1996, http://community.seattletimes.nwsource.com/archive/?date=19961127&slug=2361911
- 54 "Argentina sinks Chinese fishing boat Lu Yan Yuan Yu 010," *BBC News, March* 16, 2016, https://www.bbc.com/news/world-latin-america-35815444
- 55 Amanda Hodge, "South China Sea maritime border dispute to keep on the boil," The Australian, December 31, 2019. Following last week's incursion of more than 60 Chinese fishing vessels and coastguard ships into the Natuna Sea, which is located at the southern end of the South China Sea, "Indonesia issued an angry demarche to Beijing this week, following a 'violation of sovereignty'" by more than 60 fishing vessels and coastguard ships into its Natuna Sea.
- 56 Simon McBeth, "Kiribati catches Two Boats Illegally Fishing," *Pacific Magazine*, November 25, 2008, 10.
- 57 Dewi Fortuna Anwar, "Resource Issues and Ocean Governance in Asia Pacific: An Indonesian Perspective," in *Contemporary Southeast Asia: A Journal of International and Strategic Affairs* 28: 3 (2006), pp. 472-473.

Robert Pomeroy, John Parks, et al "Fish Wars: Conflict and Collaboration in Fisheries Management in Southeast Asia," in *Marine Policy* 31:6 (2007), pp. 645 - 656, pp. 646 – 647.

58 John Grady, "Coast Guard: Excessive Fishing Becoming 'Instrument of National Power' In Oceania, Pacific," USNI News, January 7, 2020.

https://news.usni.org/2020/01/07/coast-guard-excessive-fishing-becoming-instrument-of-national-power-in-oceania-pacific.

- 59 This section draws on industry sources and the Department of Industry, Science, Energy and Resources Australia Resource and Energy Quarterly, ed. David Thurtell, (Commonwealth of Australia, March 2020)
- 60 Condensate is light oil, primarily pentane and hexane.





