

The Changing Maritime Landscape

Two technology drivers, three consequences, and the questions they pose for the defence of Australia

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Between 2022 and 2026, three conflicts (Ukraine, the Red Sea, and Iran-Gulf) demonstrated a changed grammar of war. This brief describes what has already been observed, not what is forecast: every claim below is anchored to a documented event or an official assessment. Together they amount to two drivers and their consequences, and a clock. It argues for no acquisition, and against none.

DRIVER 1

The ocean surface is becoming transparent

The ocean's traditional defence was its vastness: a warship could hide in the sea's size. Proliferated low-earth-orbit sensing (synthetic-aperture radar that sees through cloud and darkness, radio-frequency geolocation that fixes any emitter, and electro-optical imaging) now revisits any patch of ocean every few minutes to tens of minutes. Three independent ways of seeing, none requiring the target to cooperate, all riding the commercial cost curve downward. A large surface warship is becoming a continuously findable, trackable object. What cheap drones did to the tank on land in Ukraine, satellite constellations paired with long-range fires are doing to surface vessels.

Observed: Ukraine's transparent battlefield denied mobility to expensive platforms on land, 2022–26 · In the 2026 Gulf conflict the world's premier navy kept its major surface combatants out of the sensor-saturated littoral, striking from standoff instead¹ · Commercial radar-imaging constellations now revisit the Indo-Pacific many times a day.

DRIVER 2

Precision strike at long range has become affordable, at mass

A guided weapon with 1,000+ km reach was, for fifty years, a superpower artefact priced in the millions. It is now a commodity manufacturing problem: commercial imaging seekers, additively-manufactured engines, and shipping-container launchers. The United States has institutionalised the lesson: the Air Force's affordable-mass programme plans some 28,000 cruise missiles over five years at a unit cost of US\$100,000–220,000, with deliveries from 2027, and parallel Pentagon and Navy programmes field containerised and maritime-strike rounds². Iran and the Houthis have demonstrated that even non-state actors can field precision weapons at range. The strategic consequence is an arithmetic one: the attacker's rounds now cost an order of magnitude less than the interceptors that stop them, and attackers now use mass to overmatch the defender's capacity.

Observed: US affordable-mass, containerised-missile and allied maritime-strike programmes announced 2026, deliveries from 2027² · Houthi missiles and drones rerouted a double-digit share of world shipping, 2023–25, without winning a single naval battle¹ · Ukraine, with no navy to speak of, sank the cruiser *Moskva* and drove the Black Sea Fleet from Sevastopol with missiles and uncrewed boats · In July 2026 Ukraine's ~US\$55,000 FP-1 strike drones interdicted shipping across the Sea of Azov, flown low against bridges and machinery spaces to disable rather than sink: 116 vessels claimed struck in nine days, and the Kerch Strait anchorages emptied on satellite imagery¹.

Neither driver is speculative, and neither is reversible: both ride commercial technology curves (satellite launch costs, imaging sensors, additive manufacturing) that no defence programme controls. The pages that follow trace where they lead.

One arithmetic, pointed three ways

Together the two drivers produce a simple condition: **what can be seen can be struck, and what strikes costs less than what defends**. That condition does not take sides. It applies in three directions at once, and any honest force-structure discussion has to hold all three in view.

AGAINST SURFACE FLEETS

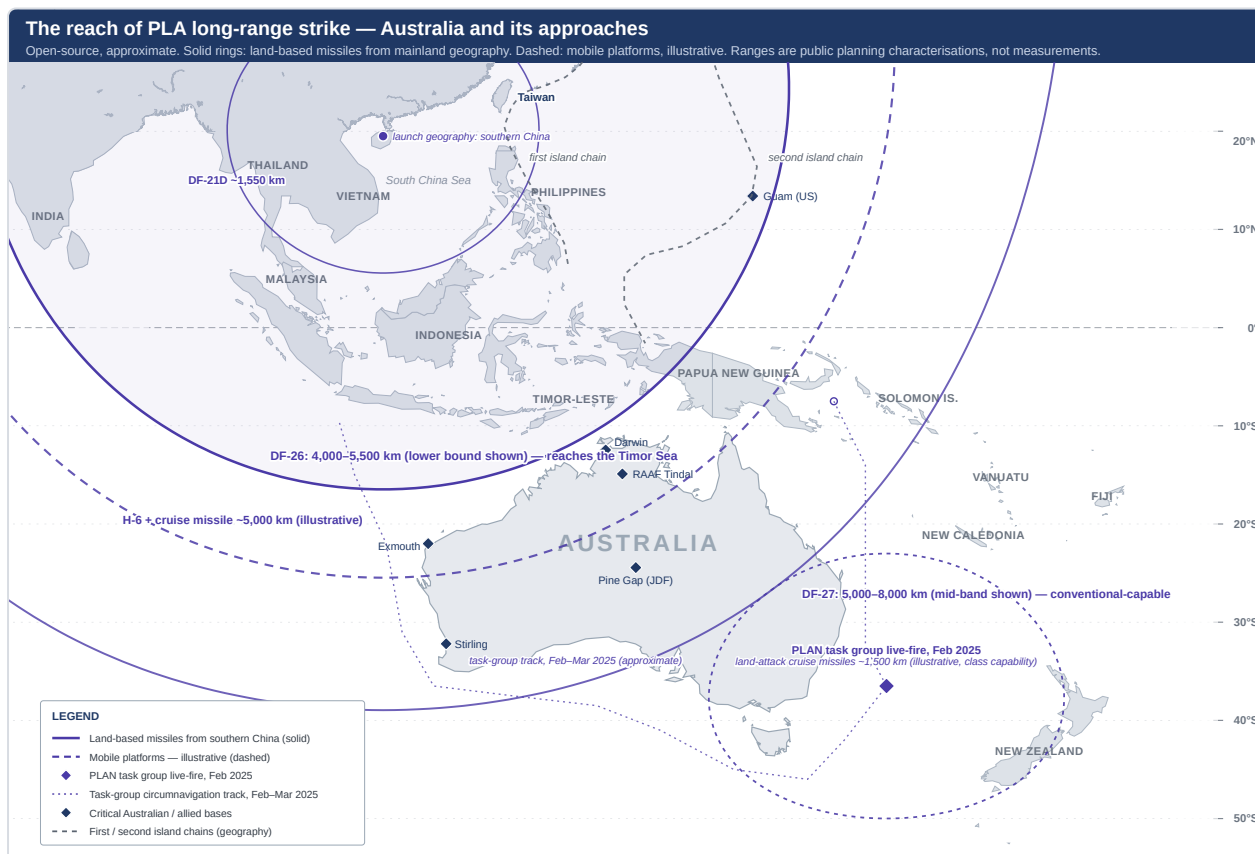
Large warships are ceasing to be survivable in contested forward waters. A fleet that is continuously findable and can be out-shot at long range is in structural trouble regardless of the quality of its defences: the defender's interceptor magazine is finite and expensive; the attacker's salvos are cheap and arrive from multiple axes. Hypersonic weapons compress the defender's reaction time from minutes toward seconds. This cuts against every navy's surface fleet, including China's own.

AS AN OPTION FOR MIDDLE POWERS

Maritime denial, once a superpower monopoly, is now available to any power that pairs satellite sensing with affordable long-range fires. The reconnaissance-strike complex China spent two decades building to hold American carriers at risk can be applied defensively by others, at commodity prices. The United States Marine Corps has rebuilt itself around exactly this idea: land-based anti-ship fires from distributed positions along the first island chain³. For Australia the leverage is unusually strong, because geography does the rest: fires of ~2,400 km reach from northern Australian territory, cued by sovereign space-based sensing, cover the maritime approaches through which any projecting force must come.

AGAINST FIXED BASES

The same arithmetic targets our own north. Airfields, fuel storage, ports and headquarters in northern Australia are findable by satellite and reachable by ballistic, hypersonic and cruise missiles, with flight times measured in minutes, not hours; independent analysis projects PLA anti-ship ballistic missile coverage extending across the Indonesian archipelago into the Timor and Arafura Seas by 2035⁴. Defending fixed infrastructure with interceptors alone loses the cost exchange in exactly the way defending a warship does, which is why dispersal, hardening and deception carry more of the load than the missile-defence magazine, and why they are the entry fee for operating in the north at all.



Solid: sourced land-based ranges · dashed violet: mobile platforms, illustrative · dotted: PLAN task-group track, Feb–Mar 2025⁵ · dashed grey: the first and second island chains: geography, not capability.

The clock: capability windows against the threat

Australia's 2026 National Defence Strategy states when the risk peaks; procurement schedules state when capabilities arrive. Putting the two on one axis is the single most clarifying exercise in Australian defence policy: every date below is from an official schedule or an independent open-source assessment.



Every date from an official schedule or independent open-source assessment. The threat matures by the mid-2030s. The programmed platforms arrive in force from the 2040s. The commodity technologies of Drivers 1 and 2 are purchasable now; the decade between is the planning question this chart poses.

The threat picture — established facts

- By 2035 the PLA is projected to field 9 carriers, 67 large surface combatants and 25 nuclear attack submarines, with anti-ship ballistic missiles holding surface vessels at risk across the Indonesian archipelago and into the Timor and Arafura Seas. — Lowy Institute, June 2026
- “China has the world's leading hypersonic missile arsenal.” — US Department of Defense report on Chinese military power, December 2025
- February 2025: a PLAN task group conducted unannounced live-fire exercises in the Tasman Sea. First notice came from a commercial airline pilot; 49 flights were diverted; holding custody of three ships consumed a national surge of ships and aircraft. — Airservices Australia, Senate estimates, February 2025
- The USINDOPACOM commander told Congress in March 2026 that long-range anti-ship munitions are among the binding gaps in the theatre, with production needing to “triple or quadruple”. — Adm. S. Paparo, Senate Armed Services Committee testimony
- Undersea: China's disclosed seabed observation network in the northern South China Sea (1,725 km of cable), survey-glider recoveries in Indonesian and Philippine waters 2019–26, a growing ASW corvette and maritime-patrol fleet, and a peer-reviewed assessment that the oceans are “at least likely” effectively transparent to submarine detection by the 2050s. — PRC MEE 2024; USCC 2024–26; ANU National Security College, 2020

If Taiwan is reunified, the contested zone moves toward Australia

Every line on the map on page 2 is drawn from today's geography, with Taiwan at the centre of the first island chain standing between the PLA and the open Pacific. Beijing has not renounced the use of force; the PLA's declared 2027 milestone is the capability to prevail in a Taiwan conflict, on the official US record; and its exercises now rehearse blockade and interdiction at scale, most recently in December 2025. Should reunification occur in the coming decade, bases on Taiwan's east coast would open direct deep-water access to the Philippine Sea, outflank the chokepoints on which allied surveillance rests, and move the contested zone toward the second island chain: closer to Guam, to the archipelago, and to Australia's approaches. The scenario falls inside the window on this page, and it would redraw the geography that every current force posture, ours and our allies', is anchored to.

— US Department of Defense report on Chinese military power, December 2025 (2027 milestone; blockade and interdiction scenario); PLA “Justice Mission” exercise, December 2025. US intelligence assesses no decision to act has been taken (March 2026).

Two horizon items

HORIZON 1 · THE 2040S

The undersea domain follows — and near-China waters go first

The ocean depths remain the hardest domain to search, and nothing here suggests submarines are obsolete today. But the undersea trend has three strands, and only one is a forecast. The fastest-moving is the one navies worry about most: **uncrewed surface and undersea craft in numbers, with AI-fused wide-area processing** turning scattered sensors into a searching network. Beneath it, China is **instrumenting its own waters** on the public record, with a seabed observation network and sensor chains laid across precisely the chokepoints a submarine must transit⁶, and its **anti-submarine forces are growing to match**: proficiency is debated; the mass is not⁴. So the waters that become contested first are near-China littorals and chokepoints. How far and how fast the trend runs is genuinely uncertain, and that is precisely the planning point: a balanced force holds capabilities whose value does not all rest on the same waters staying opaque, whichever way the undersea contest breaks.

HORIZON 2 · ALREADY UNDERWAY

The sensing layer is critical

If transparency is the foundation of everyone's kill chain, then counter-space, electronic attack and deception are the opening moves of the next war: the contest over who can still see. Two conclusions follow. Sovereign, resilient access to the sensing layer is a strategic capability in its own right, not a support function: a deterrent whose eyes can be switched off by a foreign board decision or a jammed downlink is a subscription, not a capability. And resilience means distribution.

Five tests for any force-structure investment

This brief argues no acquisition. But every major investment should now face five questions it would not have been asked a decade ago:

- 1 **Does it exist inside the window?** The threat assessments peak in the mid-2030s. Where a capability arrives later than that, what holds the line in the years between?
- 2 **Can it survive being found?** Assume it is seen, persistently, in all weather. What is its survivability then: armour, speed, depth, dispersal, or numbers?
- 3 **Does it win or lose the cost exchange?** Compare the cost of what it delivers or defends against the cost of what defeats it, per engagement, not per platform.
- 4 **Is it sovereign at the moment it matters?** Production, resupply, targeting and release: which of these does it hold in its own right, which does it share with allies, and is each reliance a considered choice?
- 5 **Can it adapt faster than the countermeasure?** Ukraine's cycle is measured in weeks. A design frozen at contract for twenty years is a bet that the pace of change will pause.

The one-sentence summary: the ocean's transparency and the collapse in the cost of precision mass fires point the same way: maritime denial is now the highest-leverage military capability a middle power with Australia's geography can field.

Sources. All open-source; full citations in the companion paper *Joint Architecture for Forward Denial* (M. Edgar, July 2026).

1. Ukraine 2022–26; the Red Sea campaign 2023–25; the 2026 Gulf conflict; RUSI and subsequent open-source analysis.
2. USAF FAMM (~28,000 rounds, US\$100–220k, deliveries 2027); DoD LCCM; USN CHAOS, announced 2026.
3. USMC Force Design / Marine Littoral Regiment; US Army MDTF, 2020–26.

4. S. Roggeveen & D. Vallance, 'Understanding the Chinese Military Threat to Australia', Lowy Institute, June 2026.

5. Missile ranges: US DoD and open-source; approximate. Mobile arcs illustrative; Feb 2025 Tasman position documented.

6. PRC MEE approval, Mar 2024 (1,725 km SCS seabed observation network); sensor chains Hainan to the Paracels; survey-glider recoveries in Indonesian and Philippine waters 2019–26; ASW corvette and maritime-patrol production; AMTI/CSIS; USCC 2024–26.