

Joint Architecture for Forward Denial

Completing the strategy of denial — the capability, in four pages

MALCOLM EDGAR · AUGUST 2026 · BRIEF · VERSION 1.0

Australia's strategy is deterrence by denial of the northern approaches, in a window the Government's own threat judgments set at the mid-2030s. The AUKUS class submarines are the apex of that strategy, and they arrive from the 2040s. The companion brief, *The Changing Maritime Landscape*, describes the changed world; this brief describes the capability built for it: a sovereign reconnaissance-strike joint architecture that can be fielded inside the threat window, from funding lines already on the books.

What Forward Denial requires — and what the Joint Architecture delivers

FIND AND HOLD

1 · Custody of the approaches

A force that cannot be found cannot be held at risk, so the sensing-and-targeting network comes logically before every shooter. The Joint Sovereign Targeting Network (JSTN) fuses space-based radar and electronic-intelligence (ELINT) sensing with JORN, Wedgetail and air-defence command-and-control to find, track and hold custody of ships and aircraft across the approaches, with revisit measured in minutes.

DESTROY AT RANGE

2 · Credible destruction at standoff

Australian geography sets the reach: denying a projecting force any safe standoff from the assets it threatens requires fires of roughly 2,400 km. The Long-Range Precision Fires batteries deliver it: 3,600 sovereign ship-killing rounds, forward on defence lands in peacetime. **One battery destroys a small surface action group; two destroy a large one; three mission-kill a carrier strike group.**

DETER VISIBLY

3 · Demonstrability before any shot

Deterrence operates in peacetime and crisis, so the capability must be visibly generated, exercised and communicable in graduated steps. Containerised batteries that can be counted, a production line that can be toured, coverage that can be published and an exercise record that can be watched are **a deterrent that can be shown** before any shot, which is where deterrence does its work.

SOVEREIGN IN CRISIS

4 · Resilience under Australian authority

Produced and sustained from a supply chain Australia can rely on under stress, and under Australian authority to act: a government-owned, contractor-operated line at commodity component prices, sovereign custody and cueing, resupply without external constraints.

The arithmetic, in four numbers

2035

the full baseline stands **inside the threat window**; fielding begins in the early 2030s.

3,600

rounds in 25 batteries (20 forward, 5 reserve), deployed on Australian soil in peacetime: the magazine is already where the fight would be.

US\$37M

expended in rounds to destroy a surface action group of hulls worth billions of dollars. Mission-kill a carrier strike group: ~US\$104M.

US\$300k

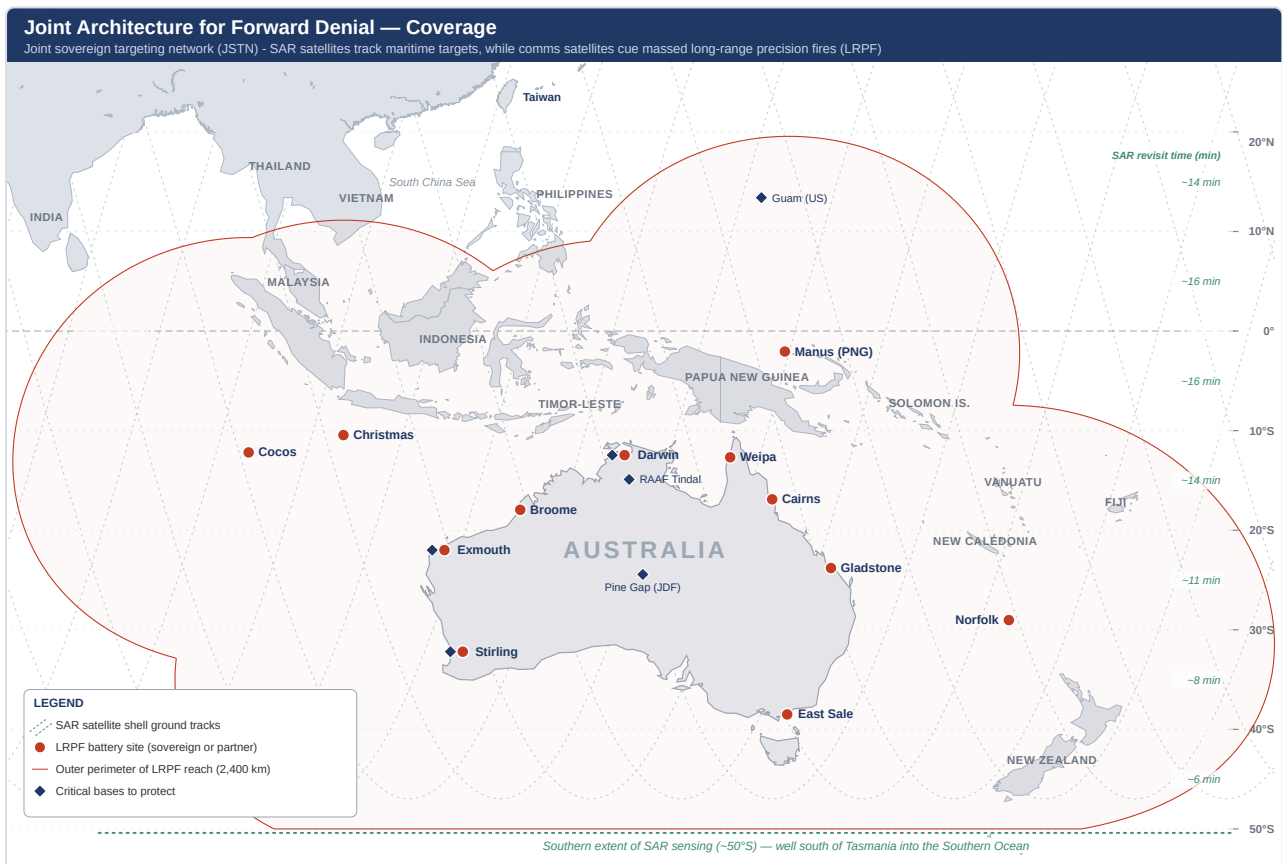
the sovereign round: 2,400 km reach, 250 kg warhead. Peer cruise missiles of this class cost ~US\$2M; the gap is production model, not capability.

The network that finds — sovereign custody in its own right

Three ways of seeing, none requiring the target to cooperate. Synthetic-aperture radar detects ships in all weather, day and night, and in its high-resolution modes images ports, airfields, staging areas and beachheads for reconnaissance; ELINT sensing fixes the emitters a warship cannot fully silence without going blind itself; and JORN's over-the-horizon radar holds wide-area watch across the approaches. Cross-cued and fused with Wedgetail's air picture, the network holds continuous track of ships and aircraft across the approaches, revisiting in minutes. It is not a greenfield build: it extends sensing, fusion and command investments the ADF already operates, and adds the space layers and weapon datalink that turn the joint picture into fires cueing.

Fire-control-grade custody is a capability a nation holds, not a product it subscribes to. Assessment products arrive sanitised, caveated and hours old; fires-quality custody is continuous, minutes-fresh and releasable to Australian shooters at Australian discretion. The gap is not hypothetical: when a PLAN task group deployed into the Tasman Sea in February 2025, first notice of its live-fire exercise came from a commercial airline pilot, and holding custody of three ships consumed a national surge of ships and aircraft. The JSTN exists to retire that standing-custody problem. The pattern it fields is proven, not speculative: Ukraine's deep strikes ride commercial imagery, machine-vision terminal seekers and navigation that keeps working when satellite-navigation is denied.

The network multiplies everything that plugs into it. Air Force, Army and Navy fires become long-range joint shooters on the same track, and allied platforms cue from sovereign custody at Australian discretion. Custody is only half the network's job: its communications shell carries the **weapon datalink**: mid-course updates to rounds in flight, retargeting against groups that move between launch and arrival, over resilient links built to keep the kill chain closed when satellite navigation and communications are contested. The **hypersonic weapons arriving through AUKUS Pillar 2 at about 2040** depend on it most: a Mach 8 weapon launched at ~1,900 km flies for some twelve minutes, in which a surface group moves seven kilometres, outside any terminal seeker's basket without sovereign mid-course custody. The same network that makes today's subsonic round lethal is what makes the hypersonic generation usable, and it is the layer that cues the submarines when they arrive.



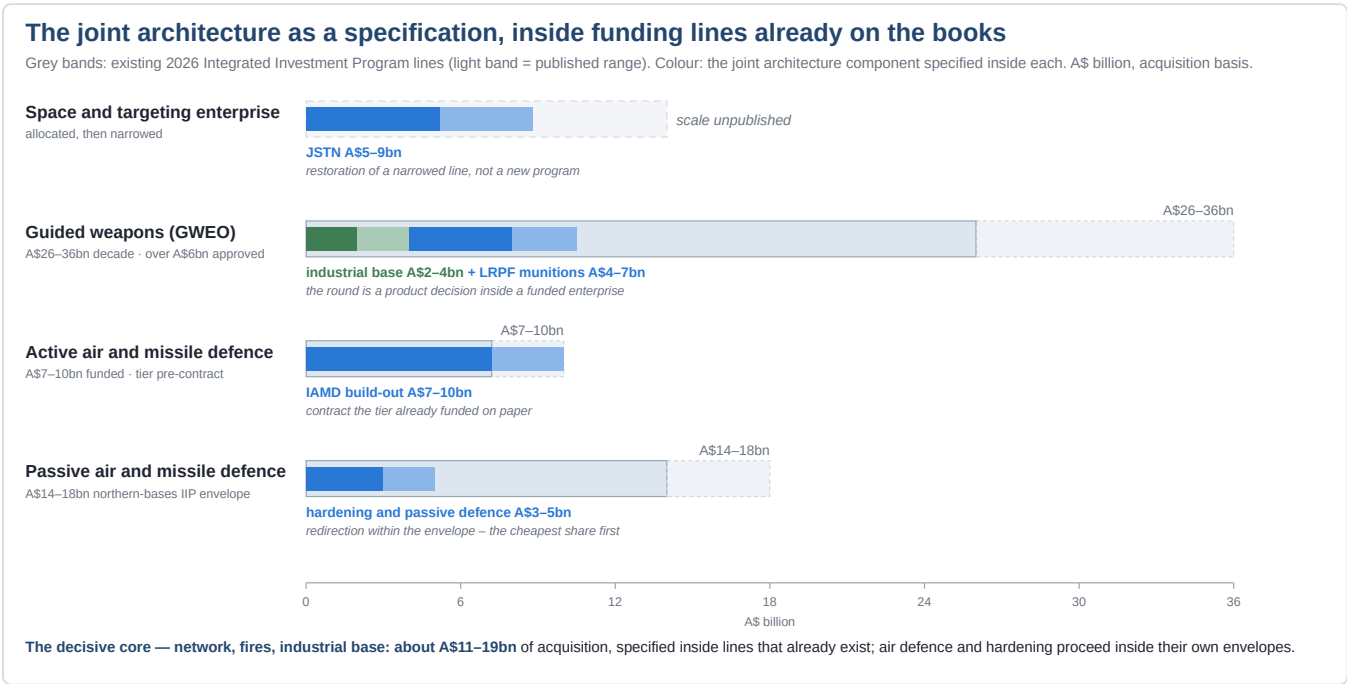
One frame, both halves of the capability: sovereign sensing custody (satellite tracks and JORN) and 2,400 km fires coverage of the approaches, the mirror image of the companion brief's threat map. Battery sites illustrative; the force distributes 25 batteries across five sectors.

Fielded inside the threat window, from lines already on the books

The build order follows leverage and speed.

- **The JSTN first:** the most sovereign, highest-leverage element, logically prior to every shooter.
- **The LRPF batteries with it:** together with the network, the element that deters in the mid-2030s threat window.
- **The active air and missile defence layer:** fast to field; the short-range and battle-management tiers are already in train, and the medium-range tier is funded but pre-contract.
- **Base hardening, the passive layer:** the cheapest and fastest share of all.

Fielding begins in the early 2030s; the full baseline stands by 2035. These are the investments the 2026 Integrated Investment Program has already named as priorities of the strategy of denial: the targeting enterprise, long-range strike, integrated air and missile defence.



Budgetary position, drawn to scale: each component of the joint architecture is a specification inside an existing funding line: committed, but not yet committed to a particular product. Figures: v2.0 technical reference (Table 2) and published IIP/NDS 2026 lines.

How it strengthens AUKUS

The submarines arrive into a theatre the network already watches and the fires already defend, cued by sovereign custody, based at a Stirling protected by Australian air defence. Pillar 2 becomes the supply line, feeding hypersonic generations through the Australian chassis. And it is robust to every future: boats on schedule are multiplied; late, the layer holds anyway; and if the region's geography shifts (the companion brief's Taiwan scenario), the joint architecture anchors to the one geography that cannot be taken.

Four decisions, no new program

Specify the GWEO enterprise's long-range product: the 2,400 km sovereign round. Restore the narrowed space and targeting-enterprise lines to the JSTN specification. Contract the funded medium-range air-defence tier at the stated scale. Direct the hardening share of the northern-bases envelope to the passive layer first. Each is a specification of money already committed: about A\$11-19 bn of decisive core, inside existing budgets several times that size.

The one-sentence case: the joint architecture can be fielded inside the threat window, survives being found, and is a specification for money already committed: the layer that holds the approaches until the AUKUS submarines arrive, and the network makes them count when they do.

Sources: The Changing Maritime Landscape (Aug 2026) · Joint Architecture for Forward Denial v2.0 (July 2026) · full reference list therein.