



Closing the distance:

Australia's northern theatre logistics distribution gap

Summary

- Modern high-intensity conflict consumes ammunition, fuel, equipment and personnel at rates that can rapidly overwhelm peacetime assumptions. Australia's challenge is compounded by the concentration of industrial, maintenance, storage and logistics capacity in the south-east, while forces may need to operate thousands of kilometres to the north across long, vulnerable supply lines.
- Pre-positioned stocks, hardened infrastructure and sovereign manufacturing increase resilience, but only when connected to the logistics network that moves, replenishes and sustains them. Northern bases, ports, airfields and logistics nodes provide the proximity needed to generate and sustain military power, reducing response times and dependence on long supply lines.
- The Northern Territory's infrastructure, ports, airfields, fuel systems, civilian logistics capacity, industry and allied presence can form the forward end of the national logistics system. The critical question is whether the network connecting it to the national support base has sufficient capacity, redundancy, protection and deployable capability to operate under contested conditions.
- Ultimately, success is operational, not infrastructure-based: whether Australia can generate, deploy, sustain and regenerate combat power in the north at the required speed and scale - and continue doing so under pressure.

Introduction

On 19 February 1942, Japan dropped more bombs on Darwin than they had on Pearl Harbor a few months prior.¹ Northern Australia could no longer be reinforced and sustained by sea alone. Australia built and sustained a campaign along a single overland artery, the Stuart Highway. The road was hurriedly upgraded as war approached to carry fuel, munitions and personnel north.

When fuel tanks were destroyed, fuel storage was dug into tunnels beneath Darwin's waterfront cliffs.² Air power was dispersed across a network of airstrips along the highway, trading concentration for resilience and making the force harder to disrupt.³

Eighty-four years on, the geography has not changed. The same north-south corridor remains the spine on which any northern operation depends. What has changed is the reach and persistence with which adversaries can disrupt logistics and critical infrastructure.

Logistics underpins operational resilience: a force that cannot protect and sustain its logistics systems under contested conditions cannot sustain combat power.

This explainer examines what that means for northern Australia. It discusses how stockholding, hardened infrastructure, sovereign supply and deployable logistics are being knitted into a theatre logistics system; why the north is where that system must work; and what still stands between strategic intent and a system capable of generating, deploying, sustaining and scaling combat power where and when it is needed.

Logistics is combat power

The 2026 National Defence Strategy⁴ is explicit that the Australian Defence Force (ADF) must be able to sustain protracted operations from the north. The 2026 Northern Territory Defence Strategy⁵ responds with an objective to measure sustainment in hours and days, not weeks, positioning the Northern Territory to become a northern theatre logistics hub through strategic stockpiles and pre-positioned equipment.

The ambition is to turn northern Australia from a collection of sites into a functioning logistics system capable of supporting sustained operations.

Logistics is the planning and execution of the movement, sustainment and maintenance of forces - the bridge between the national support base and the deployed force.⁶

Logistics encompasses the acquisition, storage, movement repair and distribution of personnel, equipment and supplies, together with the infrastructure and information systems that sustain military operations.

Logistics don't operate in isolation. Supply chains are the flows; logistics move, maintain and sustain them; and infrastructure provides the physical network through which logistics operate. Sustainment encompasses the logistics and administrative activities required to keep a force operating effectively.

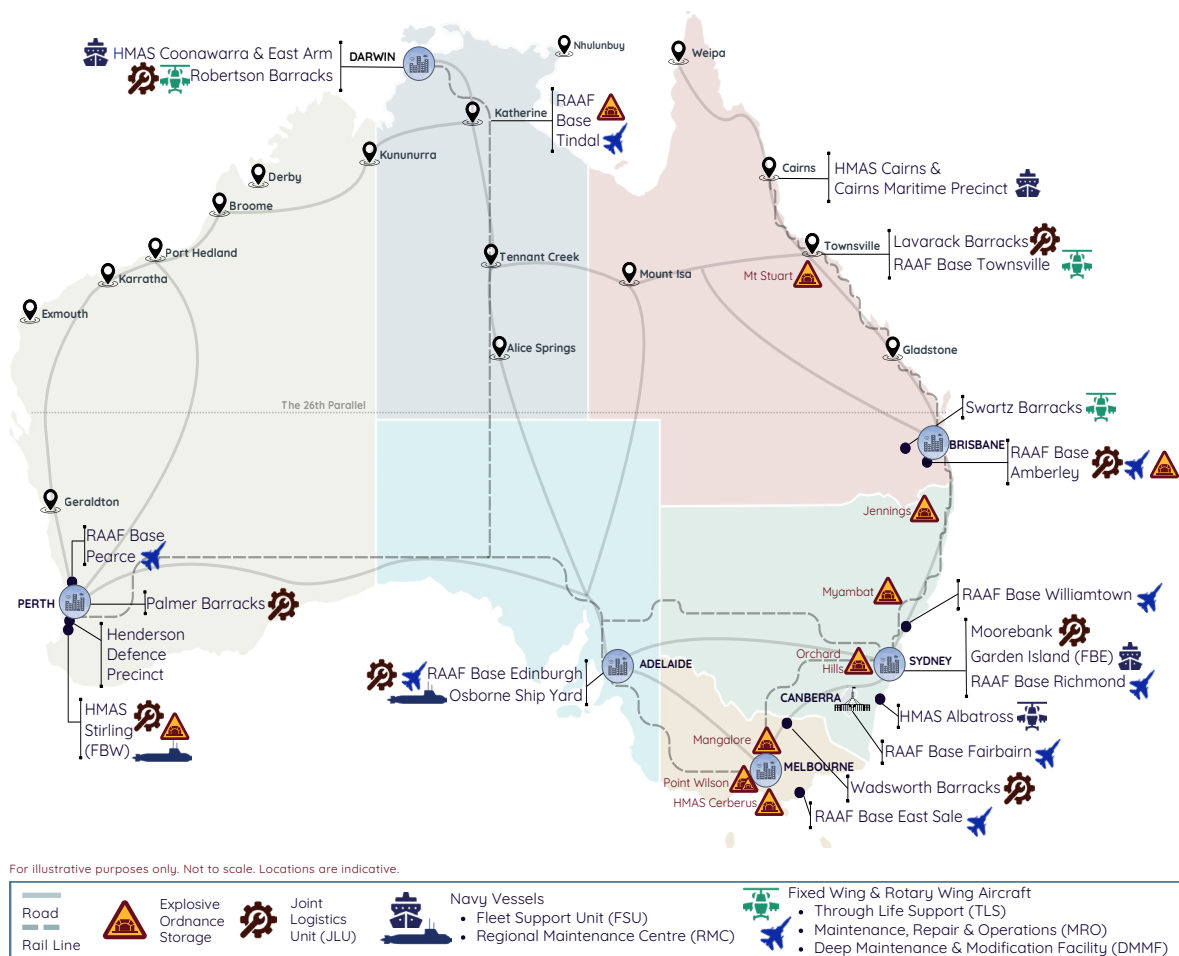
Distance shapes the problem

Australia's geography is an enduring strategic reality. Distance, climate and terrain increase the demands of sustaining military operations, while much of the nation's industrial capacity and military support remains concentrated in the south. Generating combat power in Australia's northern approaches depends on a logistics system capable of moving, sustaining and regenerating forces across vast distances and under contested conditions.⁷

The ADF's logistics system is best understood as a system of systems: a national network of Defence, industry and civilian infrastructure and supply chains that connects production and stockholding to the needs of the ADF.

Russia's war in Ukraine has demonstrated how quickly high-intensity conflict can consume munitions and materiel. Blockades in Strait of Hormuz have illustrated a different vulnerability: how disruption at a single contested chokepoint can constrain the fuel and freight on which a trading nation depends. Production can be outpaced by consumption, while access to critical supply routes can no longer be assumed.

Understanding where that capacity is concentrated, how its components connect and where vulnerabilities could constrain the movement and sustainment of combat power is essential to assessing the northern theatre logistics system.



The challenge is not simply having sufficient supplies but having the capacity, infrastructure and connectivity to move, replenish and regenerate combat power where and when it is needed.

How the system works

Joint Logistics Command coordinates the national logistics network spanning logistics information systems, warehousing, maintenance, distribution and fuel supply. The National Support Division connects Defence to the broader national support base, drawing on government, industry and societal capabilities to strengthen preparedness and resilience. Together they connect military capability with the civilian infrastructure, industry, workforce and resources needed to sustain it.

Australia already has substantial logistics capacity, but it is geographically dispersed and much of its deep sustainment mass remains in the south and south-east of Australia.

- The Continuous Naval Shipbuilding and Sustainment Enterprise has two principal shipyards – Osborne and Henderson – supported by a network of Regional Maintenance Centres (RMCs).
- Maritime sustainment is delivered through RMCs in Sydney (RMC East), Cairns (RMC North East), Darwin (RMC North) and Perth/Henderson (RMC West).
- Aviation sustainment is distributed across air bases, generally organised by aircraft type and capability.
- Army ground fleet sustainment is distributed across major army bases and Combat Service Support Battalions, with specialist maintenance and industrial capabilities concentrated at locations including Townsville, Brisbane, Darwin, Adelaide, Bandiana and Puckapunyal.
- Explosive ordnance storage is distributed across multiple Defence locations but is primarily concentrated in the southern states (with the exception of the Royal Australian Air Force's Amberley base in Queensland). Major storage facilities include Orchard Hills, HMAS Stirling, Myambat and Jennings.
- Naval munitions loading and rearming capability is limited to Fleet Base East and Fleet Base West, with emerging expeditionary rearming capability demonstrated at Darwin and Broome.
- Joint Logistics Units provide regional joint logistics support across the ADF, integrating warehousing, distribution, supply, maintenance and other sustainment functions. Principal units are located at Moorebank, Bandiana, Townsville, Brisbane, Edinburgh and Darwin. The functions are supported by Toll Remote Logistics under the Defence Theatre Logistics contract.

This southern concentration reflects Australia's industrial depth, established workforce, secure estate and existing transport infrastructure. While it's not inherently inefficient, it creates a geographic challenge. Much of the capacity that generates, repairs, replenishes and stores combat power is separated from the northern theatre by thousands of kilometres and a fragile overland network centred on the single sealed Stuart Highway and a single-track Adelaide to Darwin railway, carrying only around six scheduled freight services in each direction each week.⁸

Maritime sustainment capability provides an additional distribution layer. The replenishment ships HMAS Supply and HMAS *Stalwart* combine tanker and stores-ship functions to sustain the fleet at sea. However, in mid-2024, both were non-operational,⁹ leaving the navy without an organic replenishment capability and highlighting the vulnerability of relying on a small fleet to sustain distributed maritime operations.

For ship-to-shore and over-the-shore movement, the army relies on its ageing LCM-8 landing craft and amphibious vehicles, complemented by the navy's HMAS *Choules*, which can transport troops, vehicles, equipment and supplies where port infrastructure is unavailable or contested. These capabilities provide an existing, if limited, maritime distribution layer with a capability uplift to be enabled through new heavy and medium landing crafts and amphibious vehicle logistics vehicles.

Since 2023, Bandiana has hosted United States Army equipment for exercises. A proposed shift from Bandiana to Southeast Queensland would strengthen access to major air, port and transport infrastructure, but it won't resolve the final distribution problem. The challenge is still moving stocks, equipment and sustainment capacity into the Northern Territory and north-west Australia at the speed and scale a contingency would require.

The 2026 Integrated Investment Plan (IIP) significantly uplifts logistics and resilience as core elements of force generation. It allocates between A\$14 billion and A\$21 billion to theatre logistics and health; between A\$13 billion and A\$16 billion to northern bases; and between A\$26 billion and A\$36 billion to guided weapons and explosive ordnance (with more storage planned for New South Wales), strengthening deployable logistics, fuel resilience, hardened infrastructure, stockpiles and sovereign munitions production. Together, these investments recognise that combat power depends not only on platforms but on the capacity to sustain and regenerate them over time.

Turning that intent into operational posture is a distribution problem before it is a funding problem. The measure that matters is time and whether sustainment can reach dispersed forces across the north and the littoral domain within the required window, under contested conditions, and continue to do so.

From capacity to capability

History has shown that many logistics challenges of operating in littoral environments persist despite technological change. Sea lines of communication must be protected; forces require shipping for sea basing, troop transport, transshipment and disembarkation; and materiel must be unloaded and distributed. Stocks need to be replenished, equipment needs to be repaired or recovered, and casualties need to be evacuated.

Modern high-intensity conflict reinforces these enduring demands. The war in Ukraine has demonstrated that operational tempo depends on the ability to continuously produce, move, repair, replenish and regenerate combat power while under attack.¹⁰

For Australia, the question is not whether the logistics system has capacity, but whether that capacity can be converted into theatre capability. In the northern theatre, this means connecting the national support base to a dispersed network of bases, ports, airfields and logistics nodes. Distance, limited transport corridors and vulnerable infrastructure make capacity, resilience and redundancy across that network critical.

The practical test is simple: can Australia move what it has, sustain what it deploys and replenish what it needs, where it needs it and for as long as the operation requires?

Conclusion

Australia has substantial industrial capacity, stockpiles, maintenance facilities, transport infrastructure, northern bases and established relationships with industry and allies. The challenge is connecting these elements into a theatre logistics system capable of generating and sustaining combat power at operational tempo and under contested conditions.

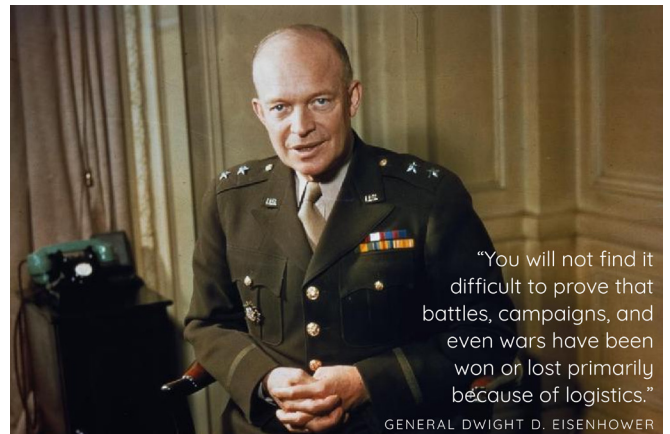
For northern Australia, the critical gap is the distance between where combat power is generated and where it needs to be sustained. Closing that gap requires more than additional warehouses, fuel farms or hardened facilities. It requires assured distribution, resilient transport networks, forward stockholding, repair and replenishment capacity, and the civilian infrastructure and workforce needed to operate under pressure.

The 2026 IIP provides an important foundation through investment in northern bases, logistics, infrastructure and stockholding. The next step is to ensure these investments

function as an integrated system that can distribute, replenish, repair and regenerate combat power when disrupted.

The Northern Territory is key to connecting the national support base to the operational theatre. Its value lies not simply in the infrastructure it contains but in its ability to project and sustain combat power in Australia's northern approaches.

The measure of success is therefore not how much infrastructure Australia possesses, but whether it can generate, deploy, sustain and regenerate combat power in the north at the required tempo and for as long as the mission demands. That is the difference between logistics capacity and theatre logistics capability.



Notes

- 1 Department of Defence, 'Darwin bombing a call to defend the north', *Defence News*, 28 February 2025, [online](#).
- 2 Northern Territory Government, 'WWII Navy Oil Storage Tunnels 5 & 6, Darwin', [online](#).
- 3 Australian Government, 'Attacks on Northern Australia 1942 to 1943', Department of Veterans Affairs, 3 March 2026, [online](#).
- 4 Australian Government, '2026 National Defence Strategy and 2026 Integrated Investment Program', 2026, [online](#).
- 5 Northern Territory Government, 'Northern Territory Defence Strategy 2026', Defence NT, 2026, [online](#).
- 6 Australian Government, 'ADF Capstone Doctrine: Australian Military Power, Edition 2', Department of Defence, 28 June 2024, [online](#).
- 7 Australian Strategic Policy Institute, 'Cost of Defence Budget Brief 2026-27', Australian Strategic Policy Institute, May 2026, [online](#).
- 8 Institution of Civil Engineers, 'Adelaide to Darwin Railway', ICE, [online](#).
- 9 Nathan Vella, 'Royal Australian Navy Down Two Replenishment Oilers As Ships Go In For Repairs', *USNI News*, 21 June 2024, [online](#).
- 10 Alex Vershinin, 'The Attritional Art of War: Lessons from the Russian War on Ukraine', Royal United Services Institute, 18 March 2024, [online](#).

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Explainers: Are short analyses that raise awareness of both existing and emerging security and defence policy challenges facing Australia and the region.

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