NORTHERN DEFENCE POSTURE: SECURING OUR NATURAL RESOURCES

INTRODUCTION

Australia must increase its naval presence in its northwest to counter regional instability and protect vital resource assets as the regional and global balance of forces shifts in the coming decades.

The first step is for the Australian Defence Force to assess the feasibility of establishing a permanent naval base in northwest Australia. These costs, both recurrent and capital, can be offset by closing or downsizing existing bases in southeast Australia.

A permanent naval facility is necessary to respond to the strategic uncertainties of the Indian Ocean rim and South East Asia. Major mining, gas and oil assets along the northwest coast are vital to Australia’s economy and Australia’s most vital sea lines of communication (SLOCs) are best served from this coast.

Australia’s Indian Ocean coastline is vulnerable to illegal fishing, people trafficking and quarantine threats. To counter these threats existing ports in this region, including Exmouth, Dampier, Port Hedland and Broome, could all be considered for naval installations.

A larger military footprint in this region will help protect sea lanes, secure industry supply lines and increase investor confidence.

The introduction of a Special Economic Zone (SEZ) in conjunction with a naval installation should also be considered. A low tax, low regulation zone would augment economic and population growth associated with a new defence installation.

SEZ’s have been shown to increase investment and create jobs and would help overcome employment challenges faced by defence families.

ECONOMIC SIGNIFICANCE OF NORTH-WEST WESTERN AUSTRALIA

The northwest is the engine room of Australia’s economy.¹ Western Australia has a large world market share in iron ore (21%), alumina (15%), nickel (12%), natural gas (9%), diamonds (8%),

¹ Regional Development Australia, Preliminary Pilbara Regional Plan. (2010) p.30
and gold (7%) as well as heavy mineral sands including tantalum (15%), zircon (12%), limonite (10%) and rutile (8%).

The region’s proximity to Asian markets has contributed to major growth. Since 2001, Australia’s mining exports have grown from $55.6 billion to over $185 billion. The Pilbara region accounts for 29 per cent of Australia’s total merchandise exports including 60 per cent of Australia’s exports to China. Despite current volatilities, high demand for Australia’s raw materials from Asia is expected to continue.

Large accessible deposits will sustain current production levels for decades. Andrew Forrest, founder of Fortescue Metals Group, argues the region is “not a short-term quarry. It will sustain major wealth generation for Australia for hundreds of years.”

Offshore natural gas will only increase the economic and strategic importance of northwest Australia. Major reserves in the Carnarvon and Browse basins are the site of hundreds of billions in investment. These reserves will meet an increase in global energy demand, expected to grow 35 to 40 per cent by 2035. Exports from the northwest are expected to push Australia past Qatar as the biggest LNG exporter in the world.

But current levels of defence in Australia’s northwest are insufficient considering the area’s economic importance.

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2 Western Australian Government “Submission to the Australian Defence Force Posture Review”


4 Ibid., p.6


7 *Economist*, “A liquid market: Thanks to LNG, spare gas can now be sold the world over” (14 July, 2012)
MAJOR OFFSHORE LNG PROJECTS IN NORTHERN AUSTRALIA

Pilbara

- The North West Shelf LNG project ($27 billion) in the Carnarvon Basin and the Pilbara, which has been producing LNG since 1989;

- The Gorgon LNG project ($43 billion) in the Carnarvon Basin and the Pilbara, which is expected to begin production in 2014; and,

- The Wheatstone LNG project ($29 billion) in the Carnarvon Basin and the Pilbara, which is expected to begin production in 2016.

Kimberley

- The Greater Sunrise LNG project ($14 billion) in the Timor Sea Joint Petroleum Development Area subject to negotiations with East Timor;

- The INPEX LNG project ($25 billion) in the Browse Basin and Darwin, which is expected to begin production in 2017; and,

- The Browse (James Price Point) LNG project ($30 billion) in the Browse Basin and the Kimberley, which is expected to begin production in 2017.

Major new offshore projects

- Shell/ExxonMobil Gorgon Joint Venture LNG Project, Barrow Island ($43 billion);

- Chevron Australia Wheatstone LNG Development ($23 billion);

- Rio Tinto Cape Lambert Phase 1 - Brockman 4 Phase 2 and Western Turner Syncline Mines Expansion – Power, Port and Rail ($6.1 billion);

- Woodside Energy Pluto LNG Project Carnarvon Basin ($14.9 billion); and,

- Woodside/North West Shelf North Rankin LNG Redevelopment ($5 billion).

AUSTRALIA’S COMPETITIVE ADVANTAGE

Australia’s comparative advantage in resources stems from low political and sovereign risk.
Australia has vast mineral and gas reserves but faces strong competition to attract investment. West Africa has been described as the Pilbara of half a century ago.\(^8\) Malaysia, Indonesia, Brunei, Oman, Nigeria, Qatar and Russia all have comparative LNG reserves.\(^9\)

For resources, Australian labour and construction costs are the highest in the world. Due to superior efficiency and increased automation Australia has remained relatively competitive.

Maintaining these advantages is pivotal if Australia is to remain an attractive site for foreign investment.

**THE SECURITY OF CRITICAL INFRASTRUCTURE**

The relationship between energy security, national defence and the economy must be considered.

While Australia is a major energy exporter, critical offshore extraction, processing and supply lines are also pivotal for domestic consumption. Energy and production networks must therefore be considered critical infrastructure for security purposes.

The Australian Government defines critical infrastructure as:

> "Those physical facilities, supply chains, information technologies and communication networks which, if destroyed, degraded or rendered unavailable for an extended period, would adversely impact on the social or economic well-being of the nation or affect Australia’s ability to ensure national security."\(^{10}\)

States and Territories “have primary responsibility for the prevention of, and response to, potential terrorist incidents involving critical infrastructure."\(^{11}\) However, as a significant amount of critical off-shore oil and gas infrastructure lies beyond Western Australia’s jurisdictional waters, the Australian Defence Force (ADF) must consider a greater role in its protection.\(^{12}\)

Retired inspector of transport security Mick Palmer released a report in June 2012 looking at the security of offshore energy facilities. Palmer’s report found a lack of certainty regarding the

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\(^9\) *Economist*, “Tankers on the Horizon: Australia’s coming LNG boom”

\(^10\) Department of the Attorney General, ‘Critical Infrastructure Protection’, *Commonwealth of Australia* (Canberra: 2008)

\(^11\) Ibid.

\(^12\) Western Australian Government, “Submission to the Australian Defence Force Posture Review”
role of the Federal and state governments responding to security issues. With many incidents threatening the safety and security of offshore installations internationally, Australia’s current arrangement clearly lacks the necessary coordination to adequately deal with possible threats.

The states have inadequate means in protecting offshore critical infrastructure. Provisions to better protect these facilities, port terminals and pipelines should be considered pivotal to future national security planning. The ADF should be in a position to respond at short notice to a threat effecting offshore infrastructure. The current location of bases does not allow this.

CASE STUDY: VARANUS ISLAND INCIDENT

On the afternoon of 3 June 2008, a series of explosions followed by fires occurred at gas production facilities on Varanus Island, 100 kilometres west of Dampier. The plant, usually supplying 30 per cent of Western Australia’s gas supply, was shut down for almost two months. The National Offshore Petroleum Safety Authority found the explosion resulted from the rupture of a corroded pipe.

While the exact economic consequences of the incident are unknown, an estimate by the Western Australian Treasury said:

“The June 2008 disruption in gas supplies...is expected to cost the Western Australian economy around $2 billion in Gross State Product (GSP) terms, with roughly half of this impact in each of the June and September quarters of 2008. This translates to approximately a 0.5 percentage point reduction in estimated GSP growth in 2007-08 from 7.5% at budget-time to 7.0 %.”

The Reserve Bank of Australia estimated that:

“Overall, the disruption is expected to result in a temporary reduction in national GDP growth of around ¼ percentage point, spread across the June and September quarters.”

As GDP is around a trillion dollars, a ¼ percentage point represents about $2.5 billion, making the RBA’s estimate broadly consistent with that of the Western Australian Treasury.

A limited act of sabotage could result in a similar if not more catastrophic result, disabling urban centres far from the event.

SECURITY THREATS TO NORTH-WEST AUSTRALIA

Australia is one of the world’s most geostrategically secure nations. Australia’s northwest coast, however, poses major security challenges.

13 Ibid.
Australia’s maritime jurisdiction is larger than any other Indian Ocean country at around six million square kilometres. From an Australian perspective, strategic developments in the Indian Ocean Rim are a source of ever greater concern. Bateman and Bergin argue that the region has become increasingly militarised and nuclearized.

Energy security concerns are an important factor in Indian Ocean Rim geopolitics. The Defence Force Posture Review notes growing demand for “critical resources such as energy, water, and rare earth elements.”

The Indian Ocean is also seeing major changes in power dynamics, traditional nationalist rivalries and complex jurisdictional claims, all of which have the potential for conflict.

Navy vessels permanently stationed off the northwest would be ideally suited to protect Australia’s maritime interests. The region could become a forward base and logistics hub capable of providing the ADF and Australia’s allies with rapid response capabilities.

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**INTER-STATE CONFLICT**

The 2009 Defence White Paper said “after careful examination, it is the Government’s view that it would be premature to judge that war among states, including the major powers, has been eliminated as a feature of the international system.” The paper went on to say “shows of force by rising powers are likely to become more common as their military capabilities expand.”

In the event of conflict between India and China, for instance, “Australia’s energy and mineral exports from the northwest to China could become a valid strategic target for India,” according to Bateman et al.

LNG infrastructure is particularly vulnerable in such a scenario. Full or near full LNG tanks store comparable energy to a tactical or strategic nuclear warhead. Targeting the LNG industry

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15 Ibid.,


18 Ibid.


could produce significant economic impacts, exacerbated by the flow-on effects to industries dependent on gas supplies for operation. SLOCs could also be targeted, preventing exports from reaching destinations and causing substantial economic damage.

It would be naive to assume the vulnerability of Australia’s offshore energy assets can be ignored because the region is relatively peaceful now. Strategically important war materials (energy products, minerals and metals) are often the target of attack in war, particularly on the high seas.

**REGIONAL INSTABILITY**

The ADF has a major role securing Australia’s immediate neighbourhood and fostering stability in the region. The 2011 Failed States index highlights that 11 out of the world’s 20 most unstable states are located in the Indian Ocean.21

The 2009 Defence White Paper details the ADF’s responsibility to counter major internal challenges that threaten the stability of our neighbouring countries: “[o]f particular salience in this regard is the continued stability of Indonesia, one of the most important features of our strategic outlook.”22

However, the limited ADF presence in northwest Australia is inconsistent with this aim. The proximity of a northwest naval facility would afford the ADF greater influence and scope of operations in the immediate region.

**NON-TRADITIONAL SECURITY THREATS**

Crippling or damaging the economic capacity of western countries is a common tactic of terrorist organisations.

While it was caused by corroded infrastructure, the Varanus island incident (above) highlights the economic implications of a possible attack. Attacking a gas tanker or offshore installation would be a highly symbolic target, ensuring widespread media coverage and publicity. Rudner argues energy is a key target of terrorist organisations, increasing oil prices, raising production and security cost, and generally destabilising western economies.23

Piracy, drug/arms trafficking and people smuggling are other non-traditional security threats present in the region. Over the last three years the number of asylum seeker vessels entering


22 Ibid. p.42

Australian waters has increased substantially, mostly in close proximity to the northwest coast, amounting to what Tony Abbott described as a “peaceful invasion.”

Illegal, unreported, and unregulated fishing (IUU) is also a serious problem. Increased demand and depletion of fish stocks in South East Asia have increased non-Australian vessels entering Australian territorial waters.

Retired inspector of transport security Mick Palmer released a report in June 2012 looking at the security of offshore energy facilities. The report notes that fishing vessels, asylum seeker boats and other vessels often come within close proximity to offshore installations, ignoring exclusion zones.

SEA LINES OF COMMUNICATION

Protecting the security of sea lines is vital for Australian trade.

Australia’s minerals, energy and other commodities are shipped along SLOC through the Indian and Pacific Oceans, and the Philippine and South China seas. The Indian Ocean is globally significant for transportation:

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“Annually, two thirds of the world’s sea born trade in oil, 50 per cent of the world’s seaborne containers, one-third of the world’s seaborne bulk cargo and the world’s highest tonnage in the seaborne transportation of goods, involving some 100,000 ships, transit through the Indian Ocean and its adjacent waterways.” 27

SLOCs from Western Australia are highly vulnerable to disruption. Australia’s relative isolation means vessels to and from the region are easily identified and could be easily targeted. Because the expansion of northern Australia’s seaborne commerce over the next decade will increase the importance of key sea lines, better protection is necessary. In Monsoon: The Indian Ocean & the battle for supremacy in the 21st Century, American defence specialist Robert D. Kaplan suggest “a state’s power to protect its merchant fleet has been the determining factor in world history.” 28


Despite the economic importance of the northwest, the nation’s military and naval capacity is concentrated on the east coast. The coastline between Perth and Darwin remains completely devoid of permanent naval facilities.

This is a point laboured by West Australian Premier Colin Barnett, who earlier this year raised concerns about leaving the northwest exposed:

“Western Australia has got a 13,000 kilometre coastline. It runs 2,400 km north-south. It is a very exposed part of Australia and it is the closest part of Australia to South-East Asia and a very troubled part of the world. So our position is very consistent: we want a strong military presence, particularly a naval presence, off our northwest coast.”

The ADF presence in northwest Australia includes an army regiment in the Pilbara and an Army Reserve unit headquartered in Karratha. The Pilbara regiment also has squadrons located in Port Hedland and Exmouth responsible for the area from Shark Bay in the south to Broome in north.

The ADF has only 79 staff in the Kimberley, 39 of whom are reservists. The Kimberley Squadron is the western-most surveillance unit of the North West Mobile Force (NORFORCE). This squadron is “responsible for land and water operations throughout the Kimberley, its coastal fringes and offshore islands.”

Unsurprisingly the 2012 Posture Review found a perception throughout the resources sector and local communities in the northwest that there was insufficient ADF presence. “Industry expressed concern that the current level of ADF presence is not commensurate with the large and rapidly growing economic importance of resource development in the North West.”

The review came to the conclusion “significant weaknesses and risks have been identified in our force posture that mostly relate to the capacity of ADF bases, facilities and training areas in the region”. The review also concluded there would be little possibility the ADF “could sustain high tempo operations beyond a few months in Northern Australia and our approaches, the immediate neighbourhood and the wider Asia-Pacific region,” under current arrangements.

29 N. Berkovic, “PM’s $150m spin doctor brigade” The Australian (August 13, 2012)
30 Ibid. p.8
31 Ibid, p.15
The creation of a permanent naval facility would undoubtedly provide major strategic advantages, protection for significant resource infrastructure, and promote confidence in capital investment in the region.

CONSIDERATIONS WHEN CHOOSING A LOCATION

The ADF Force Posture Review advised that Exmouth, Dampier, Port Hedland and Broome are all suitable for upgrade and expansion to improve ADF access arrangements.33

Dampier, Port Hedland, Broome and Exmouth are all good options based on proximity to resource infrastructure.

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32 Ibid. p.15
33 Ibid. p.3
ADF STRATEGIC BASING PRINCIPLES:

Establishing a naval installation in the region relies on meeting the ADF’s strategic basing principles.

- SBP 1 - Base locations aligned with strategic operational requirements and ensure critical capabilities are suitably dispersed for security reasons;
- SBP 2 - Defence should consolidate into fewer, larger, sustainable multi-user bases aligned with functions at Joint and Service levels and capacity for support operations;
- SBP 3 - Defence should group bases near strategic infrastructure and industry to maximise knowledge sharing, innovation and effectiveness of industry support;
- SBP 4 - Defence should locate in family-friendly areas for spouse employment opportunities, specialist medical care access, education for families, to reduce posting turbulence and increase ADF retention rates; and,
- SBP 5 - Defence should maintain an urban and regional disposition to enable continued provision of part-time capability.¹

The primary strategic basing principle is SBP 1 – the others are subordinate. In the example of a northwest naval base, the strategic importance of the region outweighs the other basing principles.

Factors other than proximity vary the suitability of each option.

For instance, as Australia’s two busiest ports by tonnage, Dampier and Port Hedland already suffer from capacity constraints driven by the resources sector.³⁴ This will be further exacerbated by BHP Billiton’s decision to shelve the $20 billion outer harbour expansion at Port Hedland.³⁵ As such these ports present unnecessary costs.

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³⁴ Port Hedland ADF Posture Review Submission p.1

³⁵ Australia Financial Review, “Iron ore miners allowed more WA berths” from http://afr.com/p/business/companies/iron_ore_miners_allowed_more_berths_RqZJgXZ3Cu6qxyN0Fb4M9M
The ADF Posture Review concluded that the “resource sector has deeper pockets and a much quicker decision making process than Defence and Government.”

In Broome, excessive costs associated with shared usage arise from competition with the tourism industry.

Physical, tidal and weather factors also affect the suitability of each site.

In his submission to the 2012 Posture Review, former submariner and navy consultant Rex Patrick said all three of these ports – Broome, Dampier and Port Hedland – suffer from major tidal variability. Patrick also said that Dampier and Broome were highly weather exposed.

Of further concern, all three of these ports would be problematic for submarine use in wartime. Subs are extremely vulnerable on the surface, and reaching suitable diving sites from these ports would involve long transits – over two hours.

EXMOUTH

36 ADF Posture Review, p.13

37 R. Patrick, Submission to ADF Posture Review, Submarine Force Posture Article

38 Ibid.
From a preliminary analysis Exmouth is the most suitable site for a naval installation. The town is located within short distance of strategic offshore infrastructure. It is also the only location with all-weather road connections via the Northwest Coastal Highway.

Exmouth has a rich military history and is already well supported by defence infrastructure. RAAF Base Learmont, a joint military/civilian facility is located 34 km south of Exmouth. Although currently a ‘bare base’, the airfield has an asphalt/concrete runway 3 km long together with associated taxiways and aircraft hardstands. As such Learmont can currently support all RAAF aircraft operating on full loads.

Another important defence installation at Exmouth is the Harold E. Holt communications station. The primary role of this facility is to relay signals to Australian and allied submarines and other naval vessels that are operating in the Indian Ocean and Western Pacific regions.

Submarine navigation into the port is simple and the tidal shift is relatively small (2 to 3 meters). Furthermore, Patrick argues the site is within one hour of suitable diving positions. The port does suffer from high weather exposure. However, the ports use as a submarine replenishment forward operating base by the US Navy in the Second World War indicates this problem is manageable.

Exmouth also has the advantage of being relatively inexpensive when compared to other sites. Prices have not been artificially inflated by mining and tourism as in Dampier, Port Hedland and Broome.

All these factors make Exmouth the most suitable site for a new naval installation in northwestern Australia.

COSTS AND POSSIBLE SAVINGS

Costs will vary depending on existing facilities and the cost of purchasing surrounding land. Townsville’s recent upgrade offers an indication of the costs involved. This $85 million upgrade will allow docking of the Royal Australian navy’s new Canberra-class Landing Helicopter Dock vessels, due for commission in 2014. The upgrade will also allow berthing certainty for visiting US warships and accommodate the movement of heavy armoured vehicles and equipment.

The costs of establishing a permanent naval facility in northwest Australia could be met by downsizing existing ports in the southeast. With major facilities located in Melbourne and Sydney and major support facilities located around Canberra, Jervis Bay, for instance, could be scaled down with minimal change in the security of the region.

HMAS Creswell plays an important role in training. This should be an element of the base that remains. Scaling back the operational elements of this naval facility would have minimal

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39 Ibid.
strategic defence implications. This area of the Australian coastline is highly stable, and utterly devoid of possible security concerns, particularly in comparison to northwest Australia.

Although cost will vary from site to site depending on the existing facilities and the cost of surrounding land, the upgrade taking place in Townsville offers an example. This $85 million upgrade will allow docking of the Royal Australian Navy’s new Canberra-class Landing Helicopter Dock vessels, due for commission in 2014. The upgrade will also allow berthing certainty for visiting US warships and strengthen the existing berth, accommodating the movement of heavy armoured vehicles and equipment.

LOCAL ECONOMY OF EXMOUTH

The town of Exmouth was originally established to support the U.S Naval Communications station Harold E. Holt in 1964. Several major projects have been completed recently in Exmouth (including the Marina Village and Novotel Resort), contributing to a period of strong growth and development for the town. Despite its small population – under 2,500 according to the 2010 census – Exmouth has a diverse economy including tourism, fisheries, resources, and defence and government services.

ADVANTAGES OF DEFENCE INSTALLATIONS FOR LOCAL ECONOMIES

Military installations bring major economic advantages to their communities, increasing population growth and offering opportunities for complementary service suppliers. Townsville’s defence community (including dependents) is over 14,000, and offers an example of the positive impact a defence installation can have. Townsville’s defence community represents 9% of the region’s total population and contributes 10.3% of regional GDP.40

A northwest naval installation will be a similarly positive influence on the local economy wherever it is located. A Special Economic Zone should be established around the instillation with tax benefits and regulatory exemptions to maximise the economic benefits of such a development and encourage further population growth.

SPECIAL ECONOMIC ZONES

According to the International Labour Organisation 3,500 Special Economic Zones existed in 2006, based in 130 countries.41 SEZ’s have proliferated in response to their success in attracting


41 T. Farole, “Special Economic Zones: What have we learned?” The World Bank: Economic Premise 64 (September, 2011)
investment and stimulating growth. Although sometimes used in economically depressed areas, most successful zones are based around areas of growth potential. 42 The establishment of naval facility in Exmouth will provide a catalyst for growth, and an SEZ will ensure this growth is maximised.

The spur of economic activity a SEZ would provide will overcome many of the employment challenges that defence families encounter upon relocation. This would be consistent with the ADO’s Strategic Basing Principle 4, which advocates bases be located in areas that provide “spouse employment opportunities.”43

CONCLUSION

Some time should be spent on the conclusion

Developments in the Indian Ocean and South East Asia provide serious security concerns to Australia, particularly the vulnerable northwest. Changes to the security outlook of the region have been taking place over recent years and offer many challenges to the

Robert D. Kaplan has proposed that the Greater Indian Ocean “may comprise a map as iconic to the new century as Europe was to the last one.”44

The region has been the site of major geopolitical and strategic changes over recent years. Ongoing

The abundant natural resources in this region are of significant national importance. In recent years the Indian

There are a number of upcoming and ongoing inquiries into Australia’s Defence, including the Defence White Paper for completion in 2013. Australia’s Indian Ocean security is also being assessed in a Senate Inquiry. Any changes to Australia’s defence force posture should be incorporated into these inquires.

RECOMMENDATIONS

The following is a set of options for the expansion of naval capacity in Northwest Australia.

42 See UK Enterprise Zones
43 2009 Defence White Paper
• That a cost-benefit analysis be conducted into establishing a naval facility, integrated with other military branches, at Exmouth.

• That the terms of reference for the 2013 Defence White Paper include a section on risks to natural resource infrastructure along Australia’s north-west coast and a section on the impact of sea lane closures in South-East Asia to our national economy.

• That a study be conducted into closing or downsizing naval facilities on Australia’s south-east seaboard to find savings that can be reallocated to our north-west seaboard.

• Create a taskforce within the Department of Defence to investigate and negotiate greater port access for Australia’s navy in civilian ports along the north and west coasts from Darwin to Perth.

BIBLIOGRAPHY


Australia Financial Review, “Iron ore miners allowed more WA berths” (27 August) from http://afr.com/p/business/companies/iron_ore_miners_allowed_more_berths_RqZJgXZ3CSuqqxN0Fb4M9M

Australian Senate, “Matters relating to the gas explosion at Varanus Island, Western Australia”, Standing Committee on Economics, (December, 2008)


Berkovic, N. “PM’s $150m spin doctor brigade” The Australian (August 13, 2012)

Department of the Attorney General, ‘Critical Infrastructure Protection’ Commonwealth of Australia (Canberra: 2008)


Economist, “A liquid market: Thanks to LNG, spare gas can now be sold the world over” (14 July, 2012)

Economist, “Tankers on the Horizon: Australia’s coming LNG boom.”


Port Headland ADF Posture Review Submission

Patrick R., Submission to ADF Posture Review, *Submarine Force Posture Article*


Regional Development Australia, Preliminary Pilbara Regional Plan. (2010)


Rudner, M. “Protecting Critical Infrastructure through Intelligence”, *International Journal of Intelligence and Counter Terrorism* 21(4), (2012)

Western Australian Department of Treasury and Finance, *2008-09 Pre-Election Financial Projections Statement*, August 2008,

Western Australian Government “Submission to the Australian Defence Force Posture Review”