Looking beyond our immediate neighbourhood, Australia’s strategic outlook is shaped most fundamentally by the changing global distribution of power, particularly the shift of power to the Asia-Pacific with the rise of China, India and other powers and the continuing strategic engagement of the United States in the Asia-Pacific.

These developments reinforce the need for a force posture that can support ADF operations in Australia’s Northern approaches; humanitarian assistance and disaster relief operations in our neighbourhood; stabilisation operations in the South Pacific and East Timor; and enhanced cooperation with the United States and regional partners.

Hawke and Smith, 2012
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EXECUTIVE SUMMARY

The ability to protect and defend its people against direct attack is a fundamental responsibility of the Australian Government. Defence forces are charged with creating balance in National security interests, while simultaneously encouraging the stability and cohesion of the Nation’s immediate neighbourhood.

Comprising 0.02% of the country’s population, the City of Karratha produces the sixth largest economic output of all Australian municipalities (Figure 1) - predominately via the resource extraction and processing industries. This equates to 6% of Australia’s total GDP, leading to the City’s reputation as the ‘engine room’ of Australia’s economic growth.

Some of the world’s largest projects are located in the Pilbara. Remote and highly exposed, this region offers phenomenal opportunities for the defence sector, yet it is without the protection of military, aircraft or ships stationed permanently in the area.

Figure 1: City of Karratha – Economic Status

![Australia’s sixth largest local economy](image)

Defence has a significant role to play in Karratha. A permanent defence presence would increase business and investor confidence, improve border security, and assist with emergency management and humanitarian scenarios. It would minimise potential risk associated with our volatile South-East Asian trading partners and neighbours. In addition, a defence presence would assist in encouraging social and economic infrastructure investment, industry diversification and job creation for the Pilbara.

The City of Karratha welcomes the Government’s 2015 Defence White Paper and puts forward the following key actions (Table 1) that we believe will benefit both the City of Karratha and the Nation:
<table>
<thead>
<tr>
<th>Action 1 - Locate permanent defence forces in Karratha:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improve response times and provide deterrence via visible overt patrols throughout the region.</td>
</tr>
<tr>
<td>• Create realistic training opportunities for Defence personnel, such as amphibious training.</td>
</tr>
<tr>
<td>• Increase the presence of Australian Government Agencies.</td>
</tr>
<tr>
<td>• Support the Pilbara Cities Vision for the City of Karratha through investment in critical infrastructure, job creation and industry diversification.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action 2 - Raise the status of the Pilbara in regards to security:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Defend against invaders and terrorist attacks that could cripple the nation’s economy.</td>
</tr>
<tr>
<td>• Deter and protect potential target acquisitions such as critical resource sector infrastructure.</td>
</tr>
<tr>
<td>• Strengthen border protection and detect illegal asylum seekers.</td>
</tr>
<tr>
<td>• Ease security concerns raised by the community, industry and current/potential investors.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action 3 - Enhance relationships with Indo-Pacific:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Respond to humanitarian and peacekeeping requests.</td>
</tr>
<tr>
<td>• Reassess the growth of the ASEAN economies. In particular, the strategic power of nations such as China and India, and the economic strengths of Japan and Korea.</td>
</tr>
<tr>
<td>• Create new opportunities for Indo-Pacific market connections.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action 4 - Raise the status of the Pilbara in regards to climate change and emergency management:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Assist with emergency management response and recovery, both within Australia and neighbouring countries.</td>
</tr>
<tr>
<td>• Ensure climate change, risk and emergency management issues are incorporated into all defence plans and strategies.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action 5 - Provide seed funding for research and development:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Establish or further extend current cooperative research centres (CRC) into:</td>
</tr>
<tr>
<td>• defence initiatives and new technologies.</td>
</tr>
<tr>
<td>• emergency management - cyclone, flood and tsunami.</td>
</tr>
<tr>
<td>• climate change – rising sea levels and warmer oceans.</td>
</tr>
<tr>
<td>• sustainable energy - solar and algae.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action 6 - Enhance trade and investment in the City of Karratha:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Protect the increasingly valuable resources industry.</td>
</tr>
<tr>
<td>• Increase Indigenous workforce development opportunities.</td>
</tr>
<tr>
<td>• Provide trade and investment opportunities for local industry.</td>
</tr>
<tr>
<td>• Support the diversification of industry.</td>
</tr>
</tbody>
</table>
1. **INTRODUCTION**

Ensuring homeland security of Australia is arguably one of the most important tasks allocated to the Federal Government. Defence policy and strategies require the ability to identify and respond adequately to global trends and any ensuing risks or threats.

The City of Karratha lays claim to some of the largest projects in the world, housing trillions of dollars worth of privately owned infrastructure. Karratha itself, is characterised by extreme climates, unique landscapes, extensive mineral and energy resources, a fast growing population and an expanding city centre. The potential for the City is infinite.

However, as with all growth and increased economic opportunity, comes risk. As each project raises the economic and political profile of the region (McHugh, 2011), exposure to potential risk becomes more pronounced. Australia can no longer afford to be complacent about the vital role Karratha plays, nor can it ignore its significant contribution to the National economy. Current deficiencies in the Government’s risk management policies and strategies need addressing urgently.

This submission will discuss topics such as border security, hazard recovery, training opportunities and international relationships. It will outline the opportunities and strategic advantages a permanent Defence community would create in Australia’s newest city - the City of Karratha.

*Figure 2: Arial View of Karratha, 2014*
1.1 Snapshot of the Pilbara Region
A key driver of the national economy, the Pilbara contributes:

- 95% of Australia’s iron ore production (40% of the world’s production)
- 70% of Australia’s natural gas production
- 85% of Australia’s crude oil and condensate production
- $900 m petroleum resources rent tax (52% of national total)
- The Pilbara produces 6% of Australia’s total GDP

In addition, the Pilbara has the:

- Second largest gold mine in Australia.
- Second largest salt flats in the world.
- Produced $2.2 billion of minerals in 2012 (gold, silver, copper, manganese, salt, construction materials, tantalite, tin and gems).
- Obtains 23% of Western Australia’s total finfish catch.

Projected earnings in the Pilbara are estimated to reach $211 billion by 2018. Additionally, the Pilbara contributes $4.36 billion in state royalties.

1.2 The City of Karratha
Described as the “Powerhouse of the Pilbara”, the City of Karratha is located in the dynamic Pilbara region of Northwest Western Australia (WA). Located 1,200 kilometres north of Perth, the City of Karratha covers a massive 15,278 km². It is bounded by the Indian Ocean in the north and west, the Town of Port Hedland in the east, and the Shire of Ashburton in the south.

Figure 3: City of Karratha Municipality
The transformation of the Karratha town centre from a mining town to a major Australian city is well underway. Industry is diversifying as the local economy expands. New housing is being built at an unprecedented rate.

**Figure 4: Karratha Central Business District, 2014**

The City of Karratha has experienced the highest actual population growth rate of any regional capital in WA over the last decade. Total population now exceeds 25,000 permanent residents. This substantial and sustained growth pattern is projected to continue (Figure 5) at a higher percentage than Darwin over the next 15 years, albeit off a lower base. The City of Karratha is well on its way to achieve the Pilbara Cities vision of 50,000 residents by 2035.

**Figure 5: City of Karratha Population Forecast Scenarios, 2006 to 2036**

Source: Syme Marmion, 2014
As a local government, we have responded by collaborating with private industry and the State Government to deliver new quality infrastructure not previously seen this far north in WA.

Recently, the City of Karratha was invited by the State Government to join the Western Australian Regional Capitals Alliance (WARCA). This vote of confidence in our municipality as a legitimate and respected regional centre has allowed us to engage equally in a collaborative alliance.

To date, the State Government has shown its commitment to the region by investing more than $1 billion in Royalties for Regions funding. Funding has been spent predominately in Karratha fast tracking housing construction, improving utilities and roads, and creating additional commercial/industrial space in an effort to improve the overall quality of life.

With over a trillion dollars’ worth of private investment in mining infrastructure throughout the North West, there is a lot at stake. The one thing missing in the Pilbara region is…

…a permanent defence force presence!

2. STRATEGIC ENVIRONMENT

A key component of Defence strategies is to secure locations of critical importance.

As the sixth largest local economy in Australia (Figure 6), the City of Karratha is of critical importance to the Nation. Industry risks, shaky international relations, natural disasters, border security and biosecurity breaches are risk factors frequently faced by the region. Add the potential for terrorist threats and the strategic environment can be described as increasingly challenging, complex and unpredictable.

Figure 6: City of Karratha – Economic Status

Australia’s sixth largest local economy
Gross regional product local government areas 2012/13

The City of Karratha is the:
2nd largest local government area for Gross Regional Product in WA
2nd largest non-capital local government area for Gross Regional Product in Australia
6th largest local government area for Gross Regional Product in Australia

Source: National Economics (NIEIR) 2013
2.1 Resources Sector

The energy and mineral resources sector continues to grow rapidly. Outputs increase every year (Chamber of Minerals and Energy of Western Australia, 2013), boasting a scale of production that few can comprehend (Figure 7).

Figure 7: Mining Machinery

Figure 8: Value of Minerals and Petroleum in Western Australia

Source: Department of Mines and Petroleum, 2013
Contributing substantially to Australia’s economic wealth (Figure 8), the 2012/2013 production values generated from the Pilbara resources sector included:

- Iron ore - $54 billion,
- Gold and silver - $1 billion,
- Manganese and salt - $528 million,
- Copper - $518 million,
- Crude oil and condensate - nearly $10 billion,
- Liquefied natural gas - over $12 billion,
- Natural gas - over $1 billion,
- LPG butane and propane - $639 million.

With 0.2% of the population, the total output value contributed by the Pilbara to the National economy solely from the minerals and petroleum sectors was over $80 billion (Department of Mines and Petroleum, 2013). There are no signs of production slowing.

2.2 Asian Proximity and Indo-Pacific Growth

Energy resources and minerals from the City of Karratha are transported via the Indian Ocean to South East Asia (Figure 9). “The Indian Ocean has replaced the Atlantic as the globe’s busiest and most strategically significant trade corridor, carrying two-thirds of the world’s oil shipments and a third of the world’s bulk cargo” (Commonwealth of Australia, 2012, p74).

Figure 9: Proximity to South East Asia from the City of Karratha
Australian interests now extend through much of the Indo-Pacific region. “The forecast is for continued growth in resource exports from the Pilbara for the foreseeable future” (Regional Development Australia Pilbara, 2014). As these developing nations grow in economic strength, so too does their unprecedented demand for commodities. This increases risk for political unrest as traditional hierarchies of order are challenged, resulting in ‘geopolitical uncertainty and change’ (Brown and Medcalf, 2013; Kerin and Kerr, 2012).

2.3 Border Security

Border security issues have led to repeated calls for permanent resources to be allocated to the Pilbara region by the community, industry and government officials (ANDEV, 2014a). “The threat of transnational crime is real and growing, and Australia’s border protection systems must be able to both manage these threats, whilst ensuring that the legitimate border transactions that support our participation in global economic systems, are facilitated” (Morrison, 2014a).

Concerns are regularly raised regarding the illegal import and export of goods such as drugs and guns; the risk of terrorism; along with the impact of illegal asylum seekers (Brisbane Times, 2013), people smuggling (Morrison, 2014b), undetected vessels (Karvelas, 2003 and Orr, 2013), and the horror for local communities when things go wrong (Sonti and Pepper, 2010 and Croyt, 2013).

Figure 10: Refugee Boat off Christmas Island Coast

Border security is a significant issue for the Pilbara. “Increasing trade flows and people movements have made managing biosecurity even more challenging.” (Australian Government, 2014). This includes the protection of industry, environment and local communities from exotic animals, plants, pests and diseases.

2.4 Emergency Management

Natural disasters are predicted to increase in magnitude and frequency (Disaster Resilient Australia, 2014). Ramifications are likely to be significant to the Australian economy if
preparation and mitigation continue to be under-resourced in the Pilbara. “Under the current natural disaster funding there is no opportunity to build better infrastructure that would give the community increased resilience in the face of the next natural disaster” (Wilson, 2014).

The very nature of the resources sector ensures that potential for man-made disasters is high. “Mines are the most common culprits of geo-physical hazards triggered by humans” (National Geographic, 2012). Hazards such as oil and chemical spills, mine collapses and explosions, pandemics, biohazards, technological hazards and warfare implications all require consideration.

Potential for irreversible damage to the environment, economy and community resilience is high. A defence presence could assist both civilians and civil infrastructure.

*Figure 11: Tropical Cyclone Christine, 2013*

![Image](image1.png)

*Source: Bureau of Meteorology, 2013*

*Figure 12: Impact of Tropical Cyclone Christine, Roebourne, 2013*

![Image](image2.png)
3. CURRENT DEFENCE SITUATION IN THE CITY OF KARRATHA

The current defence environment in the Pilbara can be described as minimal at best. Concerns have been raised repeatedly by the community, industry and Government officials. Recently, three substantial reports were prepared on defence in the North West – a Defence Force Posture Review, a Defence Force White Paper and a Senate Committee Report. All agreed that a greater defence presence in the Pilbara is required. “The reality nowadays is that any threat, either sovereign or terrorist, is much more likely to come from the north or west” (De Poloni, 2013).

Despite these concerns, the bulk of the nation’s defence capacity remains on the east coast:

“There are 8,000 soldiers in Townsville guarding the Great Barrier Reef, and you have 50 personnel guarding a trillion dollars worth of investment throughout the north-west”

Peter Long, Mayor of the City of Karratha, 2014.

3.1 Army

The Pilbara Regiment is headquartered in Karratha manned by 30 full time Army personnel, with some 20 other full time personnel spread across the Pilbara. In addition there are reservists in all these centres. Responsibilities cover 1.3 million square kilometres from Port Hedland to Carnarvon in WA, and from the coast to the Northern Territory border - approximately one-sixth of the total Australian land mass.

*Figure 13: Pilbara Regiment Training Exercise, 2014*

3.2 Airforce

The air force has two, essentially un-manned, bases at Learmonth (555 km distant) and Curtin (Derby 985 km distant). These have limited stores and require up-manning from other bases in an emergency.
3.3 Navy
There are no naval facilities in the Pilbara. Navy vessels operate sea patrols along the Pilbara coastline over a 90 day period each year in an effort to provide visibility of a defence presence. They do not call in, despite the new Pilbara Port being the largest tonnage port in the world!

The City of Karratha believe the establishment of a naval base in the Pilbara would greatly assist in alleviating security fears. Currently, Australia has:

- Two major defence ports - Perth and Sydney
- Three Royal Navy Bases - Cairns, Darwin and Waverton
- Six training, fleet, air, arms and communications bases all along the East Coast.

In addition, amphibious training occurs in Queensland on the “comfortable beaches” of Shoalwater Bay and Cowley Beach. However, if threats were made towards the Pilbara resources sector, amphibious landings would be required in deep inter-tidal muddy sea floor with large mangrove stands and soft supra-tidal flats – nothing like a Queensland beach!

Figure 14: Defence Presence in the Pilbara

Karratha is perfectly located between Perth (1252km by air) and Darwin (1752km by air), for the protection of the North West (Figure 14). Our harbours are intrinsically designed for large vessels - ideal for Canberra Class Amphibious Assault Ships with a displacement of 27,500 tonne, an overall length of 231 metres and the capacity to carry helicopters, watercraft and 2,000 troops.

"Our position is very consistent: we want a strong military presence, particularly a naval presence, off our northwest coast."

West Australian Premier, Colin Barnett
INTERNATIONAL ENGAGEMENT

“Power shifts in Asia have already begun to challenge fundamental aspects of Australia’s strategic posture. The rise of China and the relative decline of the U.S. position in the Asia-Pacific region [has] potentially put Australia in a difficult position: that of maintaining close relations with both its major ally, the United States, and its most important trading partner, China.”

Schreer, 2013

The transformation of the Indo-Pacific Region into the economic powerhouse of the world is gathering pace. This ascent is impacting the Australian economy, society and strategic environment. Within a few years, Asia will not only be the world’s larger producer of goods and services, it will also be the world’s largest consumer of them. As seen in Figures 15 and 16, East Asia is a crucial export market for Australia.

Figure 15: Distribution of Merchandise Exports for Australia (Dec Quarter 2013)

![Figure 15: Distribution of Merchandise Exports for Australia (Dec Quarter 2013)](source: National Australia Bank, 2014)

Figure 16: Australian Exports to East Asia $million per month

![Figure 16: Australian Exports to East Asia $million per month](source: National Australia Bank, 2014)
4.1 What does the Rise of the Indo-Pacific Region mean for Defence?

Operating in the same time zone (Figure 17), the Pilbara communities and industries engage regularly with the Asian region – the minerals and energy sector being the most visible. These links have enabled the Pilbara to develop strong economic, social and cultural relationships, particularly with China.

While it is not perceived that China will threaten Australian interests as the country continues to grow peacefully (White, 2012); with newly found economic power comes ambition. The potential risk of fracture in the Indo-Pacific region if strategic relationships break down cannot be ignored.

“It is not just China’s growth that poses tough questions for Australia’s political elites. Key countries in the immediate Southeast Asian neighbourhood are also undergoing significant economic and, to a lesser extent, political change. In particular, Indonesia’s current modernization is of central interest for Australia. It is demographically far bigger than Australia and is projected by some to join the ranks of the world’s 10 largest economies by 2030. Other Southeast Asian countries such as Vietnam are also growing exponentially. Finally, India, Japan and increasingly South Korea aim for a more active role in regional security affairs.”

Schreer, 2013

Figure 17: International Time Zones

Source: Regional Development Australia – Pilbara, 2014
The potential risk for a breakdown in international relationships is high. A reassessment of the ASEAN economies is required, noting the strategic power of nations such as China and India, and the economic strengths of Japan and Korea. If these relationships disintegrate, Australia may be required to respond to humanitarian and peacekeeping requests.

Creating new global markets and unprecedented demand for goods and services is the expanding Asian middle class. To capitalise on the opportunities this growth presents, a clear defence policy from the Federal Government by way of a series of policies, programs, initiatives and incentives such as:

- Provide a permanent defence force presence in Karratha to ensure homeland security.
- Address the security concerns of those involved in trade, investments and partnerships within the City of Karratha.
- Increase the status of the Pilbara in defence plans and strategies in line with its contribution and significance to the Australian economy.
- Ensure stability and sustainable security of the Indo-Pacific region through the building of trust, co-operation and participation in regional developments.
- Create opportunities for continued Indo-Pacific market connections and closer relationships through the understanding of cultures and languages.

5 DECIDING DEFENCE CAPABILITIES

A critical factor in defence capability decision making should be contribution to the Australian economy. “The rise of the Pilbara’s economic profile is accompanied by an increased sense of vulnerability to existing, as well as emerging threats. These threats may be human, environmental or industrial" (McHugh, 2012).

Figure 18: North West Shelf Oil and Gas Project, Burrup Peninsula, City of Karratha
Stakeholders, investors and potential investors continue to raise security concerns regarding potential risk that accompanies the largest projects in the world. With trillions of dollars invested into critical resource sector infrastructure in the Pilbara, the reality is that any threat against these industries could cripple the Nation’s economy.

5.1 Human Threats
A permanent defence presence in the Pilbara would support national security by:

- assuring rapid deployment if and when required
- enhancing defence familiarity and preparedness for operations in the North West
- demonstrating Australia’s security commitment to international partners
- deterring potential invaders and terrorists with specialist capabilities in counter-terrorism
- protecting Australia’s maritime domain from threats to freedom of navigation such as piracy, smuggling of prohibited imports and exports, illegal exploitation of natural resources, detecting asylum seekers and strengthening border protection
- assisting civil authorities in response to man-made hazards including oil and chemical spills, mine collapses, explosions and technological hazards
- offering humanitarian and peacekeeping efforts during political unrest or warfare

5.2 Environmental Threats
Arguably the Pilbara is the most unique of all the Northern regions, characterised by harsh environment, stunning landscapes and vast mineral deposits. Environmental threats are prevalent and include:

- Natural disasters such as cyclone, bush fires and flooding
- Climate change causing sea levels to rise, warmer oceans and an increase in drought
- Disruption to migratory pathways, degradation of habitats, and destruction of ecosystems from infrastructure development (such as damming of waterways) and oil and gas exploration/development.

Defence assistance is often deployed for response and recovery operations. Table 2 shows how phenomenal recovery costs can be. These increase if the recovery phase is prolonged (Freed, 2007) and are expected to quadruple by 2050 according to Munich Re, the world’s largest reinsurer, unless significant investment is made into preventative measures (Deloitte, 2013).

Table 2: Example of Recovery Costs after Disasters Located in the Pilbara

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Location</th>
<th>Size</th>
<th>Original Cost (AUD$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing plane MH370</td>
<td>2014</td>
<td>WA Coastline</td>
<td>239 x suspected deaths</td>
<td>$42,000,000 (as at 8/4/214)</td>
</tr>
<tr>
<td>Cyclone Christine</td>
<td>2013</td>
<td>Wickham / Roebourne</td>
<td>Category 3</td>
<td>Still to be determined</td>
</tr>
<tr>
<td>Cyclone Rusty</td>
<td>2013</td>
<td>Pardoo</td>
<td>Category 4</td>
<td>$478,000,000</td>
</tr>
<tr>
<td>Cyclone Lua</td>
<td>2012</td>
<td>Pardoo</td>
<td>Category 4</td>
<td>$230,000,000</td>
</tr>
<tr>
<td>Cyclone Carlos and mini-tornado</td>
<td>2011</td>
<td>Karratha</td>
<td>Category 3</td>
<td>$16,000,000</td>
</tr>
<tr>
<td>Gas Supply Explosion</td>
<td>2008</td>
<td>Varanus Island (Off Karratha Coast)</td>
<td>Category 3 &amp; Category 5 - 3 x deaths</td>
<td>$230,000,000</td>
</tr>
<tr>
<td>Cyclone Jacob &amp; Cyclone George</td>
<td>2007</td>
<td>Port Hedland</td>
<td>Category 5 - 3 x deaths</td>
<td>$8,000,000</td>
</tr>
</tbody>
</table>

Source: Insurance Council of Australia, 2014
The City of Karratha advocate that environmental threats are incorporated into all defence plans and strategies with specific emphasis on the response, recovery and mitigation required to support both community and industry in the Pilbara.

5.3 Industrial Threats
As productivity in the Pilbara increases, so too does the region’s international profile. Risk of industrial espionage, cyber threats and identity theft become more prominent. Symantec’s 2014 Internet Security Report, described a 91% increase in targeted cyber-attack campaigns during 2013. In addition, a 62% increase in the number of breaches saw over 552 million identities exposed.

Figure 19: Spear phishing attacks on industry in 2013

<table>
<thead>
<tr>
<th>Industries at Greatest Risk of Being Targeted by Spear Phishing</th>
<th>Source: Symantec, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>1 in 2.7</td>
</tr>
<tr>
<td>Public Administration (Gov.)</td>
<td>1 in 3.1</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1 in 3.2</td>
</tr>
</tbody>
</table>

Approximately 1 in 3 organisations in the Mining, Public Administration and Manufacturing sectors were subjected to at least one targeted spear-phishing attack in 2013.

6. DEFENCE AND THE COMMUNITY
When a defence community (including spouses and children) is positioned in a struggling regional location, it provides significant economic stimulus to the area, creating jobs and attracting new industries. This has been clearly demonstrated in Darwin, Townsville and Cairns (Welters, 2013).

Table 3 demonstrates through statistical modelling, the impact on the local economy if 5,000 defence jobs are located permanently in Karratha. The direct contribution created for the local economy equates to $783m in output value. Industries directly supporting the defence sector are likely to generate an additional $175m in output (an impact multiplier of 1.22), and $34m from localised spending of salaries and wages.

Indirect factors created by a permanent defence presence could include:

- Opportunities to support indigenous workforce development.
- Increased trade and investment opportunities for companies within the defence industry.
- Further diversification of industry sectors in the City of Karratha.
- Increased employment opportunities and economic linkages internationally.
- Seed funding for research and development
- Establishment of cooperative research centres (CRC) to develop:
  - defence initiatives and new technologies.
  - emergency management and climate change
  - tropical diseases and medical research
  - sustainable energy resources such as solar and algae.
Table 3: Impact of 5,000 Defence Jobs Allocated Permanently in Karratha

<table>
<thead>
<tr>
<th>Impact Summary</th>
<th>Output ($m)</th>
<th>Value-added ($m)</th>
<th>Wages &amp; salaries ($m)</th>
<th>Local jobs</th>
<th>Residents jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting position City of Karratha</td>
<td>13.08</td>
<td>7.47</td>
<td>4.31</td>
<td>84</td>
<td>85</td>
</tr>
<tr>
<td>Defence</td>
<td>32,908.77</td>
<td>18,237.98</td>
<td>3,301.07</td>
<td>26,008</td>
<td>17,138</td>
</tr>
<tr>
<td>All industries</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Impacts on City of Karratha economy</td>
<td>783.41</td>
<td>447.38</td>
<td>257.90</td>
<td>5,000</td>
<td>-</td>
</tr>
<tr>
<td>Industrial impact</td>
<td>175.85</td>
<td>84.79</td>
<td>59.13</td>
<td>403</td>
<td>-</td>
</tr>
<tr>
<td>Consumption impact</td>
<td>33.87</td>
<td>18.52</td>
<td>12.70</td>
<td>190</td>
<td>-</td>
</tr>
<tr>
<td>Total impact on City of Karratha economy</td>
<td>992.73</td>
<td>528.76</td>
<td>320.73</td>
<td>5,593</td>
<td>5,628</td>
</tr>
<tr>
<td>• Type 1 multiplier (direct &amp; industrial)</td>
<td>1.22</td>
<td>1.14</td>
<td>1.19</td>
<td>108</td>
<td>-</td>
</tr>
<tr>
<td>• Type 2 multiplier (direct, industrial &amp; consumption)</td>
<td>1.27</td>
<td>1.18</td>
<td>1.24</td>
<td>112</td>
<td>-</td>
</tr>
<tr>
<td>Impact on Australian economy</td>
<td>321.04</td>
<td>151.01</td>
<td>128.23</td>
<td>1,372</td>
<td>1,337</td>
</tr>
<tr>
<td>Total impact outside City of Karratha</td>
<td>1,313.77</td>
<td>679.76</td>
<td>446.96</td>
<td>6,965</td>
<td>6,965</td>
</tr>
</tbody>
</table>

Source: National Institute of Economic and Industry Research (NIEIR) ©2014. Compiled and presented in economy.id by ... The population experts
Note: All $ values are expressed in 2010-11 base year dollar terms.

The combination of direct, industrial and consumption impacts, is likely to see an estimated 5,593 jobs created, generating $320m in output from salaries and wages for the local economy. In addition, industry diversification is likely to generate nearly $529m in output value.

Overall, a permanent presence in Karratha of 5,000 defence personnel is expected to generate $1.3b in output value for the Australian economy. This is significant for Karratha, creating a buffer against the fickle nature of the resources industry.

7. CONCLUSION

The City of Karratha supports an industry sector that contributes over $80 billion to the National economy and has over a trillion dollars’ worth of private investment in infrastructure. It lies in close proximity to the troubled South-East Asia and offers considerable scope to fulfil a number of the Australian Defence Force objectives:

- defence of the nation;
- security of the region and
- nation-building investment.

The Pilbara region is of vital National significance and its contribution to the overall Australian economy cannot be underestimated. As the Indian Ocean and South East Asia undergo major geopolitical and strategic changes, serious security concerns to Australia must be addressed. As too, the deficiencies identified throughout the Pilbara as part of Government’s risk management policies and strategies. It is clear that Australia’s continued prosperity is closely tied to the security of this environment.
Opportunities and strategic advantages of locating a Defence presence in Karratha are numerous, addressing security concerns, increasing industry confidence/investment, and stabilising international relationships. At a local level, a permanent defence presence in Karratha would assist in developing further social and economic infrastructure investment, job creation and industry diversification not currently seen in the Pilbara.

The City of Karratha strongly supports a permanent Defence presence being allocated to our region. We believe the long term benefits at a local, State and National level will significantly outweigh any short term cost, reaping long term benefits for the Nation. We fully support and look forward to the Government’s White Paper on the future direction on Australia’s defence and security needs.

Defence has a significant role to play in Karratha!

Figure 20: Sunset in Karratha
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