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Inquiry into Australia's Defence Relations with the United States

Organisation: Queensland Government

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QUEENSLAND GOVERNMENT SUBMISSION TO THE JOINT STANDING COMMITTEE ON FOREIGN AFFAIRS, DEFENCE AND TRADE –

"INQUIRY INTO AUSTRALIA'S DEFENCE RELATIONS WITH THE UNITED STATES"

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Introduction

The Queensland Government recognizes that key elements of the Australia-United States defence relationship are driven by national foreign policy and regional security considerations. It is also recognised that these drivers, reflected in the Terms of Reference for the Inquiry, are key responsibilities of the Commonwealth Government.

Several points of the Terms of Reference (TOR) for the Inquiry, however, have relevance to current and proposed projects, operations and development proposals in Queensland. In some cases there are close links between US Defence facilities and Queensland-based industry, and in others there are strong interregional relationships with regards to defence.

This submission provides details of these relationships and associated issues against the TOR where appropriate. Only those TOR of relevance to Queensland activities and interests have been addressed in this submission.

In general terms, the Queensland Government has a strong interest in defence relations with the USA, as defined at a national level in the ANZUS treaty, and in how the alliance will develop to best meet each nations' security needs both in the Asia Pacific region and globally.

The Queensland Government also recognizes the economic and regional security benefits that the alliance brings to Australia and Queensland.

Response to Terms of Reference

TOR 2. The Value of US-Australian Intelligence Sharing

Relationship between Australia and the US

The events of September 11 in the United States and other international events have highlighted the need for Australia to foster positive working relationships with the US particularly with respect to the transfer of information and intelligence sharing.

Specifically, the Queensland Police Service (QPS) has developed strong links with US law enforcement, particularly the FBI both overseas and domestically. The QPS is keen to ensure that close working relationships with the US are fostered and that sharing of technologies and equipment opportunities are maximised.

It is of note that defence procurement and intelligence sharing arrangements have not been referenced in the text of the Australian-United States Free Trade Agreement (AUSFTA). It is recognized that the commercial transparency requirements of the AUSFTA do not easily apply to regional defence and global intelligence-sharing arrangements.

TOR 3. The Role and Engagement of the US in the Asia Pacific Region

An escalation in defence cooperation between Australia and the US may have some influence or impact upon current regional and international relationships, including trade relations. Estimating the significance and size of any such sensitivities and possible reactions is best gauged by Commonwealth agencies such as the Department of Foreign Affairs and Trade.

APEC and ASEAN

It is considered however that the engagement of the US in the Asia-Pacific region, particularly through APEC and ASEAN is important to the security and economic prosperity of the region.

Since its inception in November 1989, APEC has grown from an informal dialogue of 12 Pacific Rim economies to a major regional institution that coordinates and facilitates the growing interdependence of the Asia-Pacific region and works to sustain economic growth. The APEC process remains America's primary vehicle for advancing economic cooperation and trade and investment liberalization in the Asia-Pacific region.

The Association of Southeast Asian Nations (ASEAN) has established dialogue-partner relationships with other countries with interests in the region, including the United States. In 1993, ASEAN took the lead in proposing the formation of the ASEAN Regional Forum (ARF), to include the dialogue partners and some others. The inaugural ARF ministerial meeting, which was held in 1994, in Bangkok, Thailand, successfully brought together foreign ministers from all the ASEAN countries, plus Australia, Canada, China, Japan, New Zealand, Papua New Guinea, Russia, South Korea, the United States and 18 representatives from the European Union (EU), to discuss regional security concerns.

TOR 7. The value of joint Defence exercises between Australia and the US, such as Exercise RIMPAC.

Queensland hosts a number of key defence facilities which provide significant support for international forces conducting training or as transit points. Major exercises are usually conducted within the Shoalwater Bay Training Area or the High Range Training Area near Townsville. The major Australian Defence Force (ADF) training areas in Queensland are well placed in terms of their accessibility and proximity to the Asia–Pacific Region which reduces transit and establishment times for visiting forces.

US Military Training

The ADF and the US Department of Defence have a long history of combined military training, with a number of key exercises such as the biennial Tandem Thrust series, occurring in Queensland. The Queensland Government is aware of the regional benefits that stem from these exercises, and will support selected initiatives to increase the rate of international defence training activity within the State.

The central Queensland region, in particular, offers a unique training environment for large scale military training exercises. The US and Australian forces achieve a broad range of activities including sea warfare exercises, amphibious operations, land based manoeuvre on varying scales in diverse

terrain, large scale air warfare manoeuvres and scenarios impacting on civilian infrastructure and population centres.

Local Government and representative agencies are intimately involved in these exercises and benefit from activities that demonstrate the strengths and weaknesses on local civil defence plans, training and resources. The US and Australian forces likewise benefit from the active participation by local communities; ensuring the troops receive credible experience of issues such as evacuee handling, management of roadblocks and other unique urban operation factors.

Potential Joint Training Facility

There has been considerable speculation regarding potential permanent basing of US military in Australia. Recent comments by a visiting US General indicate that they are not considering a permanently manned US military establishment. Instead, the US Department of Defence and the ADF are believed to be discussing a potential joint user training facility within Australia.

One logical location for such a facility would be an expansion or upgrade of the Shoalwater Bay Training Area and supporting infrastructure, including staging facilities within Rockhampton and port facilities at Port Alma and/or Gladstone. If a joint facility is proposed, the State Government, in conjunction with regional authorities, would progress discussions with US Department of Defence and ADF staff on potential developments in this regard. The Townsville region also offers the potential for significantly expanded staging and training capabilities.

Naturally, the establishment of US military personnel in Queensland, depending upon the size and location of such deployment, will have an impact upon the resources of the Queensland Police Service. In the event that US bases are considered within Queensland, legal issues concerning the status of such bases and issues concerning liability and authority for US security personnel to provide security at such bases will need to be determined.

Value of other defence bases and exercises

Other Queensland-based defence contracts and relationships provide examples of the economic benefits that can flow from cooperative arrangements with overseas defence forces with regards to military facilities, equipment and training.

The Singaporean Armed Forces (SAF) maintain a strong presence and rate of activity in Queensland. For example, the Singaporean Army conducts an annual training exercise in the Shoalwater Bay Training Area. A large fleet of vehicles remains in Rockhampton, supported by local industry, for use in these exercises. The Singaporean Air Force also maintains a permanent squadron of Super Puma helicopters at the Army Airfield, Oakey and conducts periodical training for fast jet crews from the Amberley airbase.

The regions receive significant economic benefits from the SAF presence in Queensland, including direct exercise support contracts and through life maintenance of military assets between activities. A recent estimate by the Australian Defence Force of the economic benefit obtained from the Oakey based Singaporean helicopter training is approximately A$5M per annum. It is also important to note that Queensland industry continues to meet demand for time, cost and quality to service the international defence agencies.

Townsville has hosted a number of significant build-up activities in recent years, including the current training of various Pacific Island troops prior to their deployment to The Solomons. Regional communities in Queensland are very supportive of military activity and local industry has consistently demonstrated the ability to meet demand for goods and services.

Police resources - Increase in joint military exercises

Any increase in joint military exercises will have an impact on policing resources. This is particularly the case with respect to ensuring exclusions to military exercise zones. US warships and particularly nuclear submarines visiting Queensland ports have on occasions attracted protest activity and any increase in visits may have a corresponding effect which will require a police response.

In recent times, there have been frequent visits to Australia by US military personnel and dignitaries. Visits by these dignitaries require an elevated security operation which has implications for security assessments, venue security and close personal protection. The need to deploy specialist resources is particularly relevant with respect to policing such visits.

Summary

Queensland offers international defence forces an ideal range of training and staging facilities, combined with supportive regional communities and world class industry. Potential developments within the State, including a Joint Training Facility for US and Australian troops, will be reviewed on a case-by-case basis. However, the Queensland Government is supportive in principle of greater defence-related developments in this State which offer economic benefits for local industry and communities. The Queensland Government will continue to position its defence industry base to support such activity.

TOR 8. The Level of Australian Industry Involvement in the US Defence Industry

The US Defence budget is approaching US$400 billion per annum, and constitutes more than 42 per cent of global military expenditure. In contrast, the Australian Defence Force (ADF) budget is approximately A$20 billion (US$15 billion) per annum. Of this, Queensland industry has historically captured less than 7 per cent (approximately A$650,000) of the procurement contracts. Recent years have seen a marked improvement, with 2001-02 marking a high point, ie. 17 per cent of the ADF procurement budget. The attraction of key organisations including Boeing, Smiths Aerospace, Eurocopter (Australian Aerospace) and Raytheon to develop a significant presence within the State is heralding a new era in Queensland's defence industry capability. This growth is well supported by a growing number of small, innovative and export-focused firms in sectors such as aerospace, software, electronics, precision engineering and composites.

A significant proportion of Australia's defence assets are sourced from the US and are maintained and upgraded according to US standards. This is increasingly leading to an alignment between the two countries' defence establishments.

Joint Strike Fighter

In 2002, Australia became a third-level partner in the System Development and Demonstration (SDD) phase of the US Department of Defence project to develop the F-35 Joint Strike Fighter (JSF). The JSF is set to become the next generation aircraft for both the US and Australian Air Forces, as well as the British and Singaporeans. The Australian Department of Defence and the Department of Industry

Tourism and Resources (DITR) have jointly managed the engagement and promotion of Australian Defence Industry capabilities to the US Prime Contractor, Lockheed Martin.

DITR uses Integrated Capability Teams (ICTs) for the JSF project which has provided an unprecedented level of both interstate and inter-company cooperation in securing contracts from Lockheed Martin and their JSF Tier 1 partners. Queensland companies have been able to secure significant manufacturing contracts, and further Queensland successes are expected. This market exposure is developing leads in other areas of the giant US market. Queensland-based Ferra Engineering, under contract to the JSF program, has been selected as a preferred supplier to Lockheed Martin, Northrop Grumman, and Pratt & Whitney.

Queensland's Micreo Limited is the first electronics firm outside of the United States to be selected for the manufacture of electronic warfare equipment for the JSF. Micreo has also been selected as a sub-contractor to British Aerospace (BAe) for an ADF electronic warfare system for specific aircraft. Micreo electronic warfare equipment is also used on a number of military aircraft and will be used on the ADF's Airborne Early Warning and Control fleet. There is potential for the manufacture of electronic warfare equipment for other US Department of Defence aircraft.

The JSF program successes and initiatives to lower the barriers presented by International Traffic in Arms Regulations (ITARs), present manufacturing and service opportunities for Australian aerospace firms. In conjunction with the potential impact of the Free Trade Agreement, the planned relaxation of ITARs stands to benefit our industry in gaining valuable manufacturing licenses. This will ensure that there is local capability to support key military equipment of US origin, without a limiting dependency on US manufacturers.

RAAF Base Amberley (Qld)

The ADF has adopted an outsourcing program to reduce the numbers of uniformed staff providing logistics support to the force and transfer the manpower savings to operational activities. Boeing Australia Limited (BAL) has been contracted as the Weapons System Business Unit to modify and maintain the F-111 at the Royal Australian Air Force (RAAF) Base Amberley. In this role, Boeing sets and maintains the 'configuration' standard of the weapons system support facility, the F-111 fleet, and the simulator/mission trainer. The other F-111 contractors provide equipment and services to Boeing in its position as a primary contractor ('limited prime'). This outsourcing activity has raised the level of industry support to the ADF.

A significant ADF project is the provision of an Air to Air Refuelling (AAR) fleet for ADF aircraft using both Probe & Drogue and Boom refuelling methods. The AAR Project Office has indicated that the fleet will be based at RAAF Base Amberley. The two aircraft types under consideration are the Boeing-767 and the Airbus 330. Each of the aircraft manufacturers has a significant presence in the State and growth plans for their Queensland operations. If the Boeing aircraft is selected, Queensland is particularly well placed to provide significant local content for Through Life Support contracts. Qantas will complete their B-767 deeper maintenance facility at the Brisbane Airport in 2004 and BAL has a defence based Boeing Aerospace Support Centre at RAAF Base Amberley.

A further increase in the aircraft based at RAAF Base Amberley is expected with the re-location of the ADF Air Lift Group (ALG) from RAAF Base Richmond, NSW. The majority of aircraft in this fleet are C-130 Hercules (H & J Models) manufactured by Lockheed Martin. It is anticipated that some of the maintenance on these aircraft and equipment will also be carried out by Queensland's rapidly

developing aerospace sector. The expansion of Queensland's defence and aerospace industry to meet the demand for volume of work and technical requirements, positions the State well for greater linkages to US Defence contracts.

Summary

Queensland's defence and aerospace industry base is developing and expanding rapidly. Recent successes in the highly competitive US market (Ferra, Metal Storm and Micreo) are an indication of this. The Queensland Government is supportive of initiatives that seek to provide its firms access to the US market.

TOR 9. The Adequacy of Research and Development Arrangements between the US and Australia.

The US Department of Defence Research and Development (R&D) annual budget is estimated at a sizeable US$60 billion. Whilst the ADF spend significantly less on R&D, our links to the US market have been quite strong. The Defence Science and Technology Organisation (DSTO), part of the Australian DoD, maintains global links and is highly credible with respective international Defence research agencies, such as the Defense Advanced Research Project Agency (DARPA). DSTO also acts as a vital link to Australian industry, managing the licensing of technology to capable manufacturing firms and engaging in joint ventures to develop emergent technologies within Australia.

Australia's globally competitive defence research institutions and high technology firms need access to US counterparts, complementary technologies and capital market skills. This access will give Australia/Queensland an opportunity to maintain and further develop its defence capability edge. It will also give Australia/Queensland new opportunities to enhance its security through participation in the development of cutting-edge defence capabilities and to be part of a global defence industry chain.

Queensland Defence R&D

There are some significant Queensland-based projects that have benefited from funded R&D in both the US and Australia.

One project being pursued in parallel by USA based researchers at Edwards Air Force Base, California and the University of Queensland (UQ) is the ScramJet Project. UQ has been involved in both scramjets and hyper-velocity wind tunnel research over a number of years and has successfully achieved ignition of their scramjet under the Hyshot project. In December 2003, a Memorandum of Understanding to establish the Australian Hypersonics Initiative was signed at UQ. This initiative involves three Universities (the University of Queensland, Australian National University and University of New South Wales-Australian Defence Force Academy), two State Governments (Queensland and South Australia) and the Commonwealth Government.

Other R&D is being conducted by Metal Storm Limited, an electronic ballistics technology company based in Brisbane, Australia with an office in Washington DC in the United States. The electronic ballistics technology is being developed in collaboration with US and Australian defence agencies, and some of the world's leading scientific research organisations. The total of committed and proposed research and development funding of the technology by various government agencies exceeds A$100 million.

DSTO has also been involved in the research, development and use of boron fibre patches to reduce stress fractures in aircraft. This technology has been used to reduce stress sites on fighter aircraft, and has subsequently been licensed to a Queensland-based firm for commercial development. The Queensland University of Technology (QUT) has been intimately involved in the Australian Fedsat project, testing key lightweight technology in a satellite payload. The University of Southern Queensland has played a pivotal role in a Cooperative Research Centre that has developed fibre composite technology for construction applications. The global military applications of this technology are considered to be extensive, including rapid bridging and other infrastructure tasks.

Two Queensland firms (Elan Bio and Alternative Energies) have recently provided project presentations to DARPA, as part of a Australian visit sponsored by DSTO. One firm conducts R&D on detection of chemical and biological agents with a portable analyser, while the other conducts R&D on miniature re-chargeable power supplies for individuals in the field. However, a number of other innovative small firms have been directly targeted by the US for potential joint ventures.

These activities highlight the need for a coordinated approach by Commonwealth authorities in harnessing all opportunities for engagement of Australian firms in defence-related R&D and in coordinating cooperative defence projects. One example of good practice in this regard, is the US Department of Defence's placement of a liaison officer in Canberra who, amongst other things, is required to seek potential technologies relevant to future US Defence needs.

The potential also exists for Commonwealth agencies to gain access to US R&D funding through Project Bioshield or the reinvigoration of National Aeronautics and Space Administration (NASA).

Bioshield

In the 2004 State of the Union address, President Bush announced Project BioShield – an initiative to make available modern, effective drugs and vaccines to protect against attack by biological and chemical weapons or other dangerous pathogens.

It is understood Project BioShield will:

- allocate resources for "next-generation" medical countermeasures, allowing the US Government to buy improved vaccines or drugs for smallpox, anthrax, and botulinum toxin. Use of this authority is currently estimated to be $6billion over ten years. Funds would also be available to buy countermeasures to protect against other dangerous pathogens, such as Ebola and plague, as soon as scientists verify the safety and effectiveness of these products;
- strengthen National Institutes if Health development capabilities by speeding research and development on medical countermeasures based on the most promising recent scientific discoveries; and
- give the Food and Drug Administration the ability to make promising treatments quickly available in emergency situations - this tightly controlled new authority can make the newest treatments widely available to patients who need it in a crisis.

Queensland has established infrastructure, human capital and expertise in the research into and development of treatments for biosecurity threats. Along with significant research effort focusing on agricultural product, many significant investments have been made to support health and medical biotechnology research in Queensland, resulting in world recognised research in the State.

For example:

- the Queensland Institute of Medical Research (QIMR) including the new Clive Berghofer Cancer Research Centre;
- the Institute for Glycomics at Griffith University;
- the Institute for Molecular Bioscience within the Queensland Bioscience Precinct;
- the Australian Institute for Bioengineering and Nanotechnology at the University of Queensland (UQ);
- the Institute for Health and Biomedical Innovation at Queensland University of Technology; and
- the Queensland Health Pathology and Scientific Services group.

Queensland has significant expertise in tropical health located in the Australian Centre for International and Tropical Health and Innovation (ACITHI, a joint venture between QIMR and UQ), the CRC for Vaccine Technology, University of Queensland, the Queensland Institute of Medical Research, the James Cook University (Anton Breinl Centre and the Comparative Genomics Centre) and Queensland Health's Tropical Public Health Unit Network.

Examples of advanced programs examining issues similar to those that will be subject to Project Bioshield funding include:

- Queensland University of Technology - chimeric dengue vaccines investigations to elicit an immune response against multiple dengue virus serotypes using a recombinant dengue virus or a plasmid containing dengue virus envelope protein genes from two or more serotypes;
- Queensland Institute of Medical Research - cloning of DNA between group A streptococcal strains to understand how group A streptococcal (GAS) gene products contribute to the pathogenesis of streptococcal infections;
- Mater Medical Research Institute - retroviral expression cloning to discover new molecules expressed by white blood cells to better understand immune function;
- University of Southern Queensland - genetically engineered non-toxic whooping cough vaccine;
- Australian Army Malaria Institute - testing the safety and efficacy of a yellow fever vaccine genetically modified to vaccinate against Japanese encephalitis;
- Queensland Health Scientific Services – production of diagnostic reagents and potential vaccines for the disease caused by Ross River virus; and
- Queensland Health Scientific Services – production of diagnostic reagents and potential vaccines for the disease caused by Hendra virus and for the viral disease Australian Bat lyssavirus.

New vision for NASA

On 14 January 2004, President Bush proposed a $12 billion five-year project to reinvigorate the National Aeronautics and Space Administration (NASA). The agency then released its Vision for Space Exploration, a framework for exploration of the solar system and beyond, in early February 2004.

President Bush's 'new vision' for American space exploration calls on the United States to:

- use human and robotic exploration of the moon to prepare for a living base and missions to Mars;
- return the space shuttle to flight but retire it by 2010;
- develop a shuttle replacement by 2008 for manned exploration by 2014; and
- complete US work on the International Space Station (ISS) by 2010.

It is considered Australia can benefit from this funding commitment through the UQ HyShot program, which completed its first successful launch in July 2002 when UQ scientists successfully conducted a world first scramjet (supersonic combustion ramjet) in flight conditions. This test was a major step in international research into hypersonic and space travel.

The HyShot research, although still in its early stages, has potential for application in defence research in areas such as rocket and new materials design. The HyShot program requires funding to:

- enhance the computational modelling facilities of the database on Hypersonic Aerodynamics at UQ, the first of its type in the world;
- provide additional flight test program infrastructure (e.g. missiles);
- upgrade the UQ microgravity drop tower to facilitate further testing of biological and engineering samples under reduced gravity conditions; and
- install a supersonic wind tunnel at the University of Southern Queensland.

The HyShot program is consistent with the Queensland Government priorities and consistent with the national Queensland R&D priorities (Frontier Technologies for Building and Transforming Australian Industries/Enabling technologies, Safeguarding Australia/Queensland).

There is strong interest from major aerospace agencies, including NASA, in the technology.

The Australian Government, in consultation with State and Territory Governments, could assume a role in identifying opportunities and facilitating investment by the US Defence agency, into Australian R&D to ensure mutually beneficial outcomes through initiatives such as Bioshield and NASA's new vision.

Summary

Queensland is developing a global reputation in a number of scientific fields related to defence. The State has a number of niche capabilities, often developed by small firms, that offer Defence R&D agencies important opportunities for joint developments. US Defence R&D representatives are forging valuable links with these firms. DSTO's engagement with Queensland is fairly sporadic and its activities appear to focus on organisations near its bases in Victorian and South Australia. It is considered there is the need for a coordinated approach by Commonwealth authorities in harnessing opportunities for engagement of Australian firms in defence-related R&D projects and in coordinating cooperative defence projects.

It is considered the potential exists for the Review Committee to highlight opportunities to support Australia/Queensland defence related Research and Development (R&D), including gaining access to United States (US) R&D funding under the recently announced Project Bioshield or the reinvigoration of NASA.

Outside TOR: Other Issues

Defence Policy

The Queensland Government's Smart State vision recognises that innovation, expertise and know-how are the future driver of economic growth in the State. Defence and aerospace industry sectors are

identified as priority export sectors for Queensland. Any policy vis-a-vis any expansion of defence cooperation should include:

- maintaining Australian control and ownership of Intellectual Property that is genuinely created in Australia and seek to develop and exploit those opportunities within Australia as far as possible;
- developing opportunities for Australian and US firms to jointly develop third markets;
- technology transfer to local suppliers and enhancing opportunities for regional business to supply products and services (including supply and logistic support) to military exercises and training facilities in Australia;
- fostering defence support industry clusters in Queensland which could be developed into new export businesses; and
- simplifying procedures for export of defence products and services between the two countries.