A 2008 Perspective

Australia's National Security

Considerations for Planning Defence and Security Capabilities Well Into the 21st Century



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Author's Note

A version of this study was published by Future Directions International, in Australia, when the author was on its board as a Founding Member, and as Chairman of its Research Committee. All of the content of the study, however, was prepared by the author, and is copyright © 2008-2011 Gregory R. Copley, with this text, and in this form.

Cover Illustration:

The statue of a World War I digger, the memorial to the Australian Imperial Force 2nd Division, at Mont St. Michel, the Somme Valley, France. This study is respectfully dedicated to all those who serve or have served, whether in uniform or as civilians, in the defence of Australia.

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Preface

A New Era of Challenges for Australia

he Australian Labor Party Government of Prime Minister Kevin Rudd came to office on December 3, 2007, committed to revisiting the security challenges facing Australia, and studying the options open to Australian strategic planners in what is emerging as a new global security framework. This presaged what could emerge as the first truly comprehensive and creative Defence White Paper for some decades.

Defence Minister Joel Fitzgibbon on February 22, 2008, formally announced the start of the new Defence White Paper analytical process under the leadership of Michael Pezzullo, Deputy Secretary of Strategy at the Department of Defence. At the same time, the *Australia 2020 Summit* held in Canberra at the Prime Minister's direction on April 19-20, 2008, reinforced the fact the Government's security policy would combine "soft-" and "hard-power" means to ensuring Australia's long-term interests.

We, at Future Directions International (FDI), had already stressed the need for a comprehensive revisiting of Australia's security options for the coming decades, in which the global strategic framework was expected to remain fluid. This need, outlined in the landmark FDI study, *Australia 2050: An Examination of Australia's Condition, Outlook, and Options for the First Half of the 21st Century*¹, released in the Australian Federal Parliament on December 4, 2007, a day after the new Government was sworn into office.

This *FDI Occasional Paper* — *Australia's National Security* — evolved from the chapter on National Security from that *Australia 2050* study. Both studies stress the absolute need for Australia to adopt a mix of soft-power and hard-power capabilities to achieve its security goals in the face of the changing

¹ Copley, Gregory R.; Pickford, Andrew: Australia 2050 : An Examination of Australia's Condition, Outlook, and Options for the First Half of the 21st Century. Melbourne, 2007: SidHarta Publishers Pty. Ltd.

environment dominated by countries which are in many instances overwhelmingly wealthier and more populous. Even though Australia is between the 11th and 13th largest defence spender in the world in absolute terms (depending on the calculating methods being used; it ranks nowhere near this high in terms of the percentage of GDP spent on defence), it still cannot expect to meet its strategic and security needs through reliance on military spending alone.

As a result, this *FDI Occasional Paper* and the *Australia 2050* study stress that national security is now absolutely a "whole of nation" — and certainly a "whole of government" — affair. The welfare and security of the nation-state cannot be left solely to a necessarily small (by international standards) defence force, no matter how innovative and well-equipped it may be. Of course, the new Defence White Paper, is confined to addressing only how the formal military structures of the nation, the Australian Department of Defence (Defence) and the Australian Defence Force (ADF), develop within this strategic reality.

This *FDI Occasional Paper* supports that process of addressing the missions and capabilities of the Australian defence community. At the same time, this paper emphasises the linkages between Defence and other elements of the national security community, particularly the intelligence services and the foreign policy, trade, and cultural mechanisms, which cannot be considered in isolation from the formal capacities of the ADF. This is also compatible with the analytical approach of FDI, which has, since its foundation, been developing a "grand strategy" model, or discipline, for its studies, consistently looking at the broadest possible range of factors — from culture, economics, linguistics, religion, history, geopolitics, resources, climate, industry, technology, education, and the like, to the "hard" defence studies — within a contextual framework.

This approach is not only appropriate, but absolutely essential to any study of Australian defence considerations for the coming decades, given the fluid interaction of all factors in our national wellbeing into the 21st Century. In the meantime, I would urge a reading of the comprehensive *Australia 2050* study by FDI. This sets Australian security within the context of economic, agricultural, energy, industrial, educational, national identity, and other

factors, as well as within the framework of the emerging global condition, and historical trends.

The Government's White Paper on National Security was being written concurrently with this *FDI Occasional Paper*, and it is possible — and desirable — that this document should influence the planned Defence White Paper. It is clear that a weakness in the current security debate in Australia has been that there has never been a definitive statement of what Australians want as a nation and as a people. Without this, how can we determine our functional strategies and then what capabilities we need? FDI, of course, attempted to embrace this debate with the production of *Australia 2050*, which was released on December 4, 2007. Britain's outstanding military historian and military strategist, Sir Basil H. Liddell Hart, gave a definition of strategy as the calculation and coordination of ways and means to achieve ends.² Without a clear statement of ends — grand strategy goals, which *Australia 2050* began to define — we cannot complete the formula.

In defining the ends — the goals — which Australian grand strategy must define, it is clear that Australia cannot avoid facing responsibilities both as a globally-involved nation, and as a regionally-involved nation. We cannot ignore either aspect of our strategic needs; neither can we rely on the hope that others will take care of the problems, nor that we can cope merely by reacting to problems as they emerge. And they are already emerging.

- Gregory R. Copley, June 2008

² B. H. Liddell Hart, *Strategy*, London: Faber & Faber Ltd., 1954, 1967, p. 322.

Key Findings and Recommendations

- Global and regional security environments will remain unstable for the foreseeable future, for a range of reasons, including the anticipated peaking and subsequent decline of global population figures over the coming decades, and the confluence of a range of economic, scientific, cultural, and sovereignty trends.
- 2. The confluence of key strategic trends in the coming decades will require Australia to field a strong mix of conventional, counter-insurgency, peacekeeping, and nationbuilding military capabilities. Apart from confirming the long-term move into "unconventional" (and often asymmetric) challenges, there will be a new requirement to build "soft" military capabilities focused around psychological strategy assets which Australia presently lacks.
- 3. Australia is losing some of its technology/innovation leadership regionally by virtue of the growth of other regional economies. It must therefore turn even more to the use of force-multipliers, both in terms of technology and in terms of practices. This will call for innovative use of Australia's own scientific and industrial community. Doctrinal and training development must increasingly become the core Centre of Excellence for the Australian Defence Forces (ADF).
- 4. Australia's most expensive defence capital investments coming into service over the coming few years will provide much of the framework of ADF capabilities to mid-century and beyond.
- 5. Australia's ANZUS alliance with the United States will remain the core alliance for Australia, but Australia will increasingly have to operate alone and/or with other partners on some issues. Australia is no longer a "dependent" or junior partner in the ANZUS alliance, and must comport itself accordingly.
- 6. Australia's changing pattern of energy dependency will in many respects determine the nation's strategic, security, and military options. The Department of Defence and the ADF need to be participating parties to Australia's energy and infrastructural planning.
- 7. Australia's External Territories provide a broader footprint for Australia's strategic and security capabilities than have been considered in the recent past, and should be given higher priority in defence planning in the future, including consideration of token garrisoning of Cocos (Keeling) and Christmas islands.
- FDI advocates the creation of a dedicated office within Defence to monitor Australia's space interests, and to develop and manage Australian strategic approaches to space, including taking a management rôle in Australia's present Defence-related space communications and COMINT/SIGINT, warning/reconnaissance/imagery, and other assets.

Chapter One

Security in a Transforming Global Environment

"The big guns cooled in the Turkish lines 'mid the green hills hidden away While the steadfast course of the Anzac Horse was east till the dawn of day." — From South of Gaza, by Edwin Gerard, World War I

The Cold War era offered Australia a period of relative calm and stability in which to plan and operate its defence and security services. For decades, Australian defence planners were able to define the expectation and shape of threat in 15-year rolling cycles, and the essential message was "no foreseeable threat for the next 15 years".

That age has now passed. Australia has, for the past two decades, become increasingly flexible and perceptive to its changing regional security environment, and this has been reflected in its growth in strategic capabilities across many sectors of its security resources. But the security environment will grow even more complex, and subject to rapid change.

The world is facing an "Age of Global Transformation", which is, at its most fundamental, a period of changing security parameters, as globalisation, urbanisation, wealth patterns, population growth and decline, and other factors coincide to challenge such things as national sovereignty. How Australia copes with this period of security change — including the phenomena of *cratocide, cratogenesis*, and *cratometamorphosis*³ — over the coming two or three decades will determine how well, and whether, it survives over coming decades as the recognisable nation-state which Australians today envisage.

Of critical significance in this process is the reality that while political, economic, and therefore security, situations can transform literally overnight

³ These terms define the "murder of nations", the "birth of nations", and the "restructuring of nations": these terms were outlined initially in the study, *The Art of Victory*, by this author, in 2006, as key phenomena of the 21st Century.

as a result of one or more incidents, the tools with which nation-states cope with instability are slow to change, and expensive and relatively rigid in their architecture. Solidly-established institutions and associated operating doctrine, and existing weapons and systems, must therefore be used to cope with situations which could not have been adequately foretold. It has been said of conflict in the post-Cold War period that these were "come as you are" affairs, and while that may apply to the conflicts and strategic balancing operations of the coming decades, it is equally true that successful outcomes will be determined by open and flexible minds which will make best use of those existing tools of structures and equipment.

Many of the defence and security assets planned and coming into service today — in the first decade of the 21st Century — will still be in service at 2050, let alone 2020, the timeframe envisaged in the new Defence White Paper. What will be of paramount importance is that the systems, and the thinking associated with them, must evolve creatively to transform those tools on a constant basis. As a result, it is not the purpose of this report to discuss the specific structure of each element of Australia's national security community, but rather to look at it contextually within the framework of a transforming global, and Australian, environment of the coming half-century.

The Australia 2050 study noted in its opening chapter:

The world of 2050 will be substantially different from the world at the dawn of the 21st Century. Moving toward this world of 2050, Australia will increasingly be a nation of global interests and global responsibilities. Accurate forecasting beyond this general statement is highly speculative; no-one can predict the future. But that should not prevent us from planning for it based on broad estimating tools, and shaping that future to our needs. We can only hope through our efforts to build a nation of equal parts intellectual and infrastructural depth, wealth, confidence, and structural suppleness so that it can anticipate and appropriately respond to global challenges while retaining mastery over its own values, language, and human destiny.

The beginnings of the 21st Century, with the rapid move from the Cold War era to the post-Cold War age, precipitated an epoch of great global transformation, including globalisation, in so many

aspects of human society. This period of rapid change means that opportunities, challenges, and threats to all societies, including Australia, will emerge with less warning than ... in the 20th Century, and Australian societies and governments will need a more flexible, confident, and responsive policy- and decision-making model by which to operate than at any time in modern history.

The seamless linkage of social factors to emerging formal and informal threats which the Australian Defence Force must face in the early 21st Century, then, underlies the difficulty of mission planning — in terms of force structure, doctrine, and technology and weapons — facing the ADF. While there is no indication that Australia can ignore the possible evolution of a credible conventional military threat, it is equally clear that the indirect, informal threats and challenges may well consume the greater energy of the ADF, and require vastly different doctrine, formations, and military culture than do conventional military operations.

This is already evident, and the missions of the ADF are already dominated by police actions (Solomons, Timor Leste), disaster relief (post-*tsunami* and hurricane efforts), counter-insurgency and nationbuilding (Afghanistan, Iraq), crisis stabilisation (Fiji), and training of important client states' militaries to ensure viable governance (Papua New Guinea, etc.); and so on. These types of activities are likely to be more intense and frequent over the coming decades, and yet the great demand on the ADF and Defence structure revolves around high-cost capital investments and facilities. Indeed, the utility of conventional defence assets — such as the RAAF's Boeing C-17A *Globemaster* airlift capabilities — for conventional force deployment as well as for disaster relief has been much in evidence in recent years.

It is easy, then, to see that the new, fluid strategic environment demands greater unilateral action by Australia, and the ADF, than was the case during the Cold War. The ADF must in the future be more capable in addressing a wider range of irregular challenges than in the past, and it must do so more often in a regional context, requiring different diplomatic, cultural, and military skills than those which apply to coalition warfare with a major ally, such as the United States of America.

In many respects, the new, fluid threat environment levels the military playing field between "great powers" and smaller powers once they engage on the modern, diffuse battlefield. Essentially, the larger military powers enjoy the ability to deliver assets easily to the areas they are required. Indeed, as history consistently proves, good strategy is, in many respects, good logistics. The ADF has paid strong heed to this, and has developed the airlift — and to an increasing degree the sealift and land transportation capabilities — of a major power.

But once on the battlefield, or the field of challenge (as disaster relief and nationbuilding support can be described), modern conditions determine that the odds are leveled. Australian analysts would do well to look, for example, at how the Pakistan Army began in 2008 to look at "less kinetic means" (ie: non-force options, such as civil affairs approaches) of addressing insurgencies in its tribal areas along the border with Afghanistan. Pakistani military planners have seen the degradation of their security situation as a result of the adoption by their allies (the US-led NATO International Security Assistance Force [ISAF] and others) of formal military approaches to counter-insurgency in neighboring Afghanistan. This has resulted in the gradual emergence of new battlefield doctrine by Pakistan which aims to deliver troops safely and in the best condition onto the insurgents' home ground — where the fight is in many respects equal — while infrastructure, education, healthcare, and social agreements are being delivered to transform political realities to the Government's favour.

This could be said in some respects to mirror what the ISAF Coalition, including Australia, has been *attempting* in Afghanistan, but the Pakistani approach is less about immediate battlefield gains and more about *long-term consequences of actions* by the defence forces. In such conflicts, casualties do not rise to the levels of World Wars I and II, but the processes are more protracted and frustrating than purely conventional conflicts.

This situation will worsen over the coming decades, even though some of the underlying social issues generating the current round of insurgency, *jihadism*, and terrorism are changing. Indeed, **it is critical that the Australian security structures obtain a much more professional understanding of terrorism as a**

phenomenon if it is to be successfully handled.⁴ The growing transformation of energy and food supply realities — particularly as global economic cycles peak and trough more erratically over coming decades — will particularly impact Australia, as it moves from a period of petroleum relative self-sufficiency to one of overwhelming import dependency within a half-decade. The question, then, of what Australia does to ameliorate or address its energy needs by finding alternate forms of energy will directly impact the degree to which the nation will need to become engaged internationally in military actions to protect its interests.⁵

Thus, Australia's ability to address domestic and regional energy security issues will directly impact the cost — in human as well as financial terms — of its national security and defence capabilities. Whether Australia has to build an infrastructure (and a foreign policy) to acquire, transport, and process petroleum from the international market for the remaining few decades of the "petroleum era", or whether Australia devotes its resources to providing domestic answers to its energy needs, will absolutely determine the cost and shape of Australia's strategic and national security policies.

⁴ Discussed in Appendix Two of this *FDI Occasional Paper*, page 71.

⁵ Apart from protecting Australia's access to energy for civil use and sustaining the national economy, it is also worth stressing that the ADF itself consumes half the energy resources used by the Federal Government, and of the ADF portion, the RAAF consumes some 50 percent. Moreover, Australia has depended on the US for energy needs when deployed in coalition with US forces abroad, and there have been problems using allied oil with Australian equipment, as was noted in Operation Slipper, in Afghanistan, in 2001. Again, quite apart from the ADF's rôle in protecting Australian energy needs, it has no strategic energy reserves for its own (Defence) needs, and this needs to be addressed in future defence planning. This took on new clarity with the Western Australian energy crisis of June 2008, following accidental damage at the Apache Energy gas processing plant on Varanus Island, which caused much of the State's industry to move temporarily from natural gas to petroleum-based energy. Federal Energy Minister Martin Ferguson said on June 14, 2008, that the Department of Defence had surrendered six-million litres of diesel to the civil market in Western Australia, in an attempt to stave off the State's energy crisis.

Until this point, the Department of Defence and the ADF have focussed their efforts on delivering a range of capabilities to be at the service of the Government of the Commonwealth of Australia. This approach, while firmly recognising the principle of elected civilian control of the military in the Australian democracy, may need greater interaction in the future between Defence and the Government so that Defence and the ADF can ask the critical questions as to which infrastructural and energy paths the elected Government wishes to travel. The political, economic, and social costs of delivering the requisite security to fulfill the chosen course can then be factored into national-level decisionmaking.

As well, from a geopolitical perspective, **Australia's new defence thinking must take greater cognisance of the significant reach which Australia's external territorial holdings can give the nation.** This was discussed in a timely and comprehensive *FDI Occasional Paper*, entitled *Australia's External Territories: The Forgotten Frontiers*, released in June 2008⁶. That study recommended a dedicated, ongoing capability within Defence to consider the sovereignty and projection aspects of Australia's External Territories, a suggestion echoed by this study. It is not insignificant that the study led by Barry Patterson on Australia's External Territories stresses the growing — and threatened — importance of Australia's Antarctic holdings, both for security and for the nation's economic wellbeing into the future.

This study recommends a symbolic ADF presence on several External Territories, particularly Cocos (Keeling) and Christmas islands. These Indian Ocean islands — significant to Australia's ability to protect its interests in the Indian Ocean⁷ — would be difficult to recover should they be occupied by a foreign power, in a similar fashion to the Argentine occupation of the Falkland and other British South Atlantic islands in 1982.⁸

⁶ Patterson, Barry; and Pickford, Andrew: *Australia's External Territories: The Forgotten Frontiers*. Perth, 2008: FDI Occasional Paper No. 1.

⁷ FDI will release, later in 2008, a landmark study entitled Australia's Economic and Strategic Interests in the Indian Ocean Region.

⁸ See Copley, Gregory (Ed.): Lessons of the South Atlantic War, Proceedings of the Conference on the Anglo-Argentine War of 1982. Washington, DC, 1982: Defense & Foreign Affairs publications.

Chapter Two

The Australian Defence Force Faces New Demands for Innovation and Effectiveness

ne of the jewels in Australia's crown of national assets has, since before Federation, been its Armed Forces and its other instruments of national security. The national security community of Australia its Armed Forces, its Defence bureaucracy, its national security industrial and scientific base, its intelligence community, and its security forces⁹ — have traditionally formed at a far higher level of efficiency and capability, man for man, dollar for dollar, than probably any other similar structure in the world.

In its military and security capabilities, and in terms of the judicious deployment of its forces to aid in its own survival and the welfare of humanity, Australia has indeed been, as Governor-General (2003-08) Maj.-Gen. Michael Jeffrey, has said: "A nation of excellence; a global example".

The operating environment for Australia's security, however, is changing, and will change still further in coming decades. There will, over the first half of the 21st Century, be greater pressures on Australia's national security resources, and a greater need for ingenuity, value-added performance, and self-reliance than at any stage in the nation's history. Moreover, in a period of great global upheaval, Australia will be faced with more difficult choices than ever in balancing its own interests with those of old and new allies and trading partners, as well as the interests of global society as a whole.

Given the reality that Australia's limited population — even if it doubled in the coming decades — must function in, and protect, one of the world's largest strategic theatres, the necessity will be for the Australian National Security Community to operate at the highest levels of efficiency and effectiveness of any security community in the world. The Australian Defence Force (ADF) has already demonstrated, over more than a century of battle honours from the pre-Federation experiences in the Boer War, the Khartoum

⁹ See Appendix One: The Australian National Security Community and the Australian Intelligence Community.

operation, and the Boxer Rebellion¹⁰ until today's ranging military missions in Afghanistan, Iraq, Timor Leste, the Solomons, and elsewhere, that its capabilities, leadership, flexibility and innovation, and experience give the taxpayer more "bang for the buck" than any probably other defence force. Australia's diplomatic and trade reach has matured commensurately since Federation, but given the increasing demands which will be made on Australian physical security assets over the coming decades, the Department of Foreign Affairs & Trade (DFAT) will need to become an even more powerful partner in the projection of Australian security interests in the anticipated turbulence of world affairs.

It is clear that this is not yet the case. When ADF units returned to Timor Leste in 2006, six years after they had helped ensure the transition of the country to independence, they found that little had changed on the ground. The unemployment rate was virtually unchanged, infrastructure had deteriorated, and governance was poor. ADF personnel were right to ask what the other agencies of Australian governance had done to complement, and follow, the initial work of the ADF in Timor Leste. As one ADF source on the ground noted: "DFAT has to lift its game; AUSAID must be out and about; the UN aid agencies must deliver, and we have to organise NGOs [in such situations]." As well, while the ADF has progressed well in restructuring the Papua New Guinea military, Australian police aid has gone less well, becoming bogged down in legal finer points and conditions of service. It seems logical that the Australian Government needs to embrace the need to deploy early, be there for a long time and develop a group of people (civilians) who are actually as prepared and ready to deploy as are ADF units.

¹⁰ Since Federation, Australia has participated through the World Wars, the Korean War, the Malayan Emergency, *Konfrontasi*, the Vietnam War, two Persian Gulf wars, the international peacekeeping force in Afghanistan, numerous unilateral and bilateral conflict resolution operations in the Pacific (including, for example, support in the resolution of the Bougainville conflict in Papua New Guinea), and numerous United Nations-sanctioned peacekeeping operations and on several occasions (East Timor [now Timor Leste], Cambodia, Solomon Islands, etc.) taking the lead in multinational efforts. Few other nation-states in the 20th Century participated in such a wide range of international military commitments on behalf of the international community.

Napoleon I's maxim that "the moral is to the physical as two is to one" — in other words, twice the emphasis needs to be placed on the psychological, or seemingly intangible, aspects of strategy as on the physical aspects — is perhaps the most significant underlying guideline for Australian strategic operations in the 21st Century. The largest powers — in the 21st Century these include the US, the PRC, Japan, and so on — can afford to utilise inefficient approaches such as employing the predominance of their thrust in physical terms, relying on extended and overwhelming and blunt military presence or force. All other nation-states — those with far less disposable wealth — must resort to *indirect approach*: manœuvre (both military and diplomatic), and psychological strategies, within an efficient and coherent framework of understanding and planning.

This places great demand not only on the efficiency and quality of military and diplomatic capabilities of Australia, but also on its intelligence services and analytical capabilities, to understand the broadest, contextual framework of issues and trends affecting the country. It will also require the nation as a whole to be an integral part of Australian security, requiring of it an integrated domestic infrastructure and greater control over the tools of its foreign trade logistics, and an efficient national strategic industrial base (SIB) which can ensure that the fundamental requirements for self-sufficiency enable national leaders to avoid placing the nation in a position of unavoidable subordination to an external power.

Australia, in the first decade of the 21st Century, as in the preceding century, functions with far greater autonomy than nation-states which have less balanced economies, yet it is still necessarily tied to the policies of the major partners in its alliances. Alliances will always be vital to Australian security and prosperity, but the degree to which Australia functions as a junior partner will determine its flexibility of action, and ultimately its survival. In some security relationships (such as, in the bilateral security understandings with New Zealand), Australia is the dominant partner; in others (such as the Five Power Defence Arrangements), Australia is an equal partner. With ANZUS, Australia is perceived as a junior partner, despite the fact that Australia is, in many respects, very much an equal contributor to the alliance. There is now a need to define (or redefine, or re-examine) exactly what is expected by all participants to those written and implied aspects of those

treaties, alliances, and compacts. In ANZUS, Australia must increasingly act, and regard itself, as an equal alliance partner and ensure that its voice is heard and its opinion respected.

Within this framework, what we can now call the Australian National Security Community has been profoundly innovative in science, technology, and industry since before Federation in 1901. Australian aerospace research began even before Lawrence Hargrave's development of the first viable heavier-than-air aircraft (the *Boxkite* design used by the Wright Brothers for their initial flights¹¹). Australian inventors went on to create the initial development of the motorised torpedo, and Australian industry was responsible also for the creation and construction of some of the world's most advanced combat aircraft, a range of transport and training aircraft, advanced ship design and construction¹², an early participation in space research¹³, and much more.

¹¹ See also: Copley, Gregory: *Australians in the Air*, published in 1974 by Rigby Ltd.

¹² Quite apart from Australia's historical construction of state-of-the-art warships up to and including one of the world's best blue water conventional submarines (the *Collins*-class, now in RAN service), the Australian private-sector maritime industry has developed unique ships — catamaran- and trimaran-hulled combat ships — now being acquired by the world's largest navy, the US Navy. So successful have Australian designs proven in the naval sector that the People's Republic of China (PRC) has reverse-engineered Australian catamaran designs for its new generation of fast missile strike craft. Australian unmanned aerial vehicles (UAVs) and ground force equipment, too, has been widely respected internationally, and acquired by the US and European client states.

¹³ Australia began developing space-launch capabilities from Woomera Rocket Range in 1947. And when Australia launched a satellite on November 29, 1967, it was only the third country in the world ever to have launched a satellite from its own land (the other two were the Soviet Union and the United States). The satellite was fired into the air and into orbit from the Woomera Rocket Range. The coneshaped payload was just more than two meters long, weighing more than 70 kg. It carried scientific tests for measuring the composition of the atmosphere and solar radiation. The satellite was in orbit for about six weeks before it re-entered the atmosphere. Australian scientists continued important space research using rockets fired from Woomera until it was closed in 1980.

There is evidence, however, that Australia has — as the unit cost of major defence platforms and capabilities rises — become increasingly *less capable* (or less desirous) of acting as a developer and prime contractor on vital defence systems. This is discussed in more detail in the *Australia 2050* study. Australia's self-sufficiency in the instruments of its own security, then, is in some respects diminishing, just as Australia's leadership rôle — and self-sufficiency — in the manufacture of agricultural machinery has declined, leaving a major agricultural nation potentially exposed in times of crisis.¹⁴

Still, Australia's *capability* to sustain its existing national security infrastructure is as good as perhaps any in the world. This is critical when considering the reality that major defence platforms and most mechanical infrastructure often has a useful life of 30 years or more. That was a manageable lifespan when technology and politics changed at a more leisurely pace. Viscount Nelson's flagship, HMS *Victory*, for example, was already 80 years old when it led the Royal Navy to victory over the French and Spanish fleets off Cape Trafalgar in 1803. Today's US Air Force B-52 bombers will have been in service for some 90 years when they retire in several decades. Defence platforms must be adaptable to meet transforming threat environments, and, to retain *strategic* cost-effectiveness (as opposed to short-term cost-effectiveness) such systems as Australia's existing ANZAC frigates and *Collins*-class submarines may well have to go through several more service-life extension programs (SLEPs) to perform missions when the basic platform itself would seem to have reached obsolescence.

¹⁴ See the Australia 2050 study, Appendix 1, on Strategic Agricultural Sustainability. That section of the study details the significance to Australia of the Sunshine Harvester Works (SHW) which was, during the 1920s, Australia's largest manufacturing business, employing more than 3,000 staff and creating significant local manufacturing infrastructure at Baybrook Junction, Victoria, for its employees and the local community. SHW also had the capacity, because of the depth of its manufacturing capabilities and skill-base, of converting during wartime to the production of armoured vehicles and munitions, a resource which proved literally critical to the ability of Australia, which was at the limits of what its allies could provide in the way of support, to stave off a Japanese invasion of the Continent.

Keeping the F-111C/G strike aircraft fleet in operation to perform long-range penetration missions for another two or more decades, sustaining Australia's relative strategic air-strike reach, would have provided a capability no other regional power could have matched, given the commitment by regional states to shorter-range combat aircraft. That option, as of 2007, however, is no longer open to the RAAF: the costs and impracticality of sustaining the F-111s now outweigh the deterrent value Australia could have had.

The loss of the F-111's physical and deterrent capabilities requires an urgent and ongoing commitment to the development of a long-range deep-strike capability through guided weapons (including sub-launched long-range cruise missiles, currently constrained under the Missile Technology Control Regime: MTCR) and unmanned aerial strike vehicles (UCAVs: unmanned combat aerial vehicles). The breakdown of the voluntary MTCR conditions has already been a hallmark of the first decade of the 21st Century, and new technologies including strategic UCAVs and transformed cruise missile capabilities — will continue to supplant manned penetrators and ballistic missiles as we move closer to mid-century. As well, despite public posturing of most world leaders to avoid the "militarisation of space" (which has already occurred), the use of space-based weapons and terrestrially-launched space-delivered weapons will also transform the geospatial as well as technological nature of the emerging battlefield.

This study advocates the revival of Australia's commitment to space research and the ability of Australia to resume control over the design, delivery, and operation of its space assets. The great reality is that the Australian national security community will also need to take a greater interest in Australia's overall space industry and its capabilities. This study advocates the creation of a dedicated office within Defence to monitor Australia's space interests, and to develop and manage Australian strategic approaches to space, including taking a management rôle in Australia's present Defence-related space communications and COMINT/SIGINT, warning, reconnaissance, imagery, and other assets.¹⁵

¹⁵ *The Sydney Morning Herald*, on June 3, 2008, reported that the ADF had "achieved operational capability following a successful test of the Wideband Global

Australia will, axiomatically, be impacted by emerging revisions to the highlysuccessful 1967 Outer Space Treaty¹⁶, which essentially had driven the free use of space. Accepted custom had dictated that nations could claim up to some 100km of atmosphere. [The US defines an astronaut, for example, as someone who has flown to at least 50 miles (80.5km) above mean sea level.] The People's Republic of China (PRC) is beginning to modify, *de facto*, the tenets of the Outer Space Treaty, although it presently adheres loosely to it, and considers not just the 100km of airspace, but an undefined amount of space above it, as sovereign air space. The growth in this sort of thinking could hypothetically lead to a "satellite crisis", with the PRC crippling satellites in an exercise of its sovereign power, which may very well be supported by a number of other nations. While not necessarily provoking a war, it would certainly have implications for island nations such as Australia which are reliant on stable satellite-centric communications.

Satellite (WGS) communications system," according to government officials. "Under the deal launched last year ... Australia is funding one satellite plus associated ground infrastructure at a cost of \$927-million, while the US is paying for the other five" satellites. In return, "the ADF will be able to use all six satellites, allowing high speed data communications by ships, aircraft and land forces anywhere around the globe". Greg Combet, Australian Parliamentary Secretary for Defence Procurement, said: "The capability provided by WGS will easily meet the ADF's need for high data rate communications out to at least the year 2024 and beyond." WGS was to be operational from 2013.

¹⁶ The Outer Space Treaty — officially the "Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies" — was signed in Washington, London, and Moscow, on January 27, 1967, and entered into force on October 10, 1967. It was the second of the so-called "non-armament" treaties; its concepts and some of its provisions were modeled on its predecessor, the Antarctic Treaty. Like that Treaty it sought to prevent "a new form of colonial competition" and the possible damage that self-seeking exploitation might cause. It was signed and ratified by Australia in the original round. It was acceded to by the People's Republic of China on December 30, 1983, having been originally signed by the Republic of China (Taiwan) in 1967.

Chapter Three

Australia's Geo-Strategic Environment, Threats and Response Options as a "New Cold War" Emerges

Australian governments have always been conscious of the possibility of foreign military threats since colonial times. The perceived threat of a Russian attack led to the construction of coastal fortifications — such as Pinchgut (Ft. Denison¹⁷) — in the 19th Century in Sydney Harbour, and fear of French attempts to annexe parts of the Continent led, in the 18th and 19th centuries to the establishment of colonial outposts in various parts of Australia. World War I saw German ocean raiders in Australian waters, with resultant naval engagements of some importance. World War II saw German activities in waters of concern to Australia, and actual Japanese naval and air actions literally against Australian shores and in the waters in and off its major ports, as well as Japanese military thrusts toward Australia via the South Pacific, the Dutch East Indies, and Papua New Guinea.

Australia has been increasingly accessible to foreign ambitions since the 18th Century, and modern technologies makes Australia no more remote from the reach of hostile strategic capabilities than any other state.

Today, significantly, the strategic reach of potential states of concern to Australia is in some ways more urgent. North Korean (DPRK) *TaepoDong-2* series ballistic missiles can either now, or in the near future, reach targets in Australia; Iranian missiles will be similarly capable — given current linear

¹⁷ Pinchgut Island, in Sydney Harbour, was first called Rock Island. The island was previously known by the name given to it by the original inhabitants, *Mat-te-wan-ye* (or *Mallee'wonya*). Fortification of the island began in 1841 but was not completed. Construction resumed in 1855 and was complete in 1857 as a defence against possible Russian invasion during the Crimean War. At this point the island was re-named Ft. Denison, after Sir William Thomas Denison, Governor of New South Wales from 1855 to 1861.

trend projections — within a decade. PRC and Russian ballistic missiles can already target Australia, and Indian ballistic missiles will soon be able to do so. All of this is particularly of interest when it is considered that while military capabilities take decades to build, national will and political direction can change rapidly. Defence planners, therefore, must plan to accommodate and match with deterrent *capabilities* the capabilities they find projected by others in their regions, regardless of current lack of apparent hostile intent toward Australia.

For this reason, Australia has a strong vested interest in ballistic missile defence (BMD) in terms of early-warning capabilities, and, with its proposed Hobart-class Air Warfare Destroyers (AWDs), a warning and countermeasure capability against ballistic missiles. Australia is still dependent on US satellitebased sensors for its first line of warning of hostile ballistic missile launches against it, and the mobile, ground stations at Pine Gap also are part of the Alliance-based Ballistic Missile warning process which Australia shares. Australia's pioneering development of the Jindalee strategic early warning system (OTHR: over-the-horizon radar) (collectively known as JORN), however, has also been of important value in giving Australia a stronger ability to identify potential threats, and to contribute to the monitoring of the entire Asia-Pacific ballistic missile threat regime. Significantly, the development of a strong BMD technology base throughout the world also adds to the prospect that ballistic missiles themselves and their nuclear warheads can be rendered less effective or non-viable within the coming decades, certainly by 2050. Other threats will, of course, emerge to take their place.

The contextual framework of this capability, however, is critical, and the global context is changing substantially.

The most significant strategic phenomenon of the recent Cold War period and into the first half of the 21st Century has been the doubling of the human population between 1950 and the turn of the century. The ramifications of this continuing population growth on all aspects of life on the planet are enormous, and will continue to dominate all that we do over the next century.

However, a natural chain of development will, it seems, in a century or so, reduce this spike in human population numbers. The signs of reduced population growth rates are already evident, and the prospect for what could be termed "neo-Malthusian adjustments" in population levels, and in the quality of human life, no longer seem far-fetched. In the meantime, the remaining surge of population growth and movement is the strategic reality which will drive social formation and actions for the coming few decades. It will spur both growth and collapse over coming decades, creating new forms of society and therefore new forms of competition and warfare. But trends, including several generations of sustained population growth, will pass, and reverse, or change. There is, in history, no unbroken chain of development.

The phenomenon of combined population and technological growth, the hallmark of our epoch, will define itself in profound competition or polarisation between traditional society and urban society, and this will be exemplified in global tensions which will have some similarities to the last Cold War, in that major nation-states will compete aggressively through measures short of direct, formal, military confrontation. We are already seeing this "New Cold War", or "Second Cold War", albeit one which also has some very different characteristics than the 20th Century's Cold War.

Australia cannot opt out of this New Cold War — this new evolution of competing strategic *blocs* — any more than it can opt out of human society, or opt out of the planet itself. Indeed, no significant nation or society will be able to avoid this strategic reality, just as none could fail to have been impacted by the last Cold War which led directly to the present period of globalisation and the New Cold War.

This Second Cold War has some different players than the Cold War of 1945 to 1990, and is not a revival of that great, silent, and glacial clash between the Warsaw Treaty Pact and NATO; between East and West. This New Cold War transcends and embraces our immediate conflicts.

It is difficult to say how long the Second Cold War will continue; the first continued for 45 years. This one may, or may not, be decided by economic or political collapse in China, for China is fast approaching several potentially explosive strategic catalysts, perhaps within the next decade; perhaps in the timeframe to around 2020.

As humanity, we surge and unite and part in waves of civilisations, nations, cultures. And where our surges collide we often ignite. And now, because human numbers have more than doubled in the past half-century, these surges carry with them the prospect of more clashes and, at the same time, the tensions which build as we atoms of humanity move, through urbanisation, into closer and closer and more frictional contact.

Karl von Clausewitz described the friction of war, noting: "Everything is very simple in war, but the simplest thing is difficult. These difficulties accumulate and produce a friction beyond the imagination of those who have not seen war. ... The influence of innumerable trifling circumstances, which cannot be properly described on paper, depress us, and we fall short of the mark. A powerful 'iron will' overcomes this friction; it crushes the obstacles, but at the same time the machine along with them."¹⁸

What we are seeing today, and what we witnessed briefly during the Cold War, is that, in strategic warfare, entire populations are involved, albeit often unwittingly, and that the very nature of human concentrations into urban machines creates a "friction of war" among civilian societies. This makes societies as a whole more challenging to manage, and makes everyday life more filled with an angst which cannot be released in battle.

Within this "New Cold War framework", which could last for several decades into the 21st Century, Australia will be operating increasingly in a global environment, particularly as a trading state with interests in the global resources sectors. But it will also find, over the coming decades, regional concerns of a security nature due to varying degrees of delicacy in the stability of neighbouring states. A variety of factors — including positive factors such as economic growth — will induce differing forms of delicacy and change in these states. Of prime concern to Australia over the coming decades will be the stability and actions of:

¹⁸ von Clausewitz, Karl: War, Politics, and Power. Translation by Col. Edward M. Collins, USAF. Chicago, 1962: Regnery Gateway, Inc. pp 131-2. The text is also to be found in Clausewitz's On War, published originally in German as Vom Kriege in 1832.

- The People's Republic of China (PRC), and the matter of Taiwan (and the Republic of China [ROC] generally); as well as a range of other factors relating to the PRC, including its perception of requisite expansion of geospatial dominance in the Pacific, the Indian Ocean, and into critical supply regions such as Africa and the Americas, etc., apart from East Asian balance issues related to Japan, the Korean Peninsula, and US projection;
- The Democratic People's Republic of Korea (DPRK: North Korea), and the matter of Korean reunification;
- Indonesia and the peripheral states affecting South-East Asian sea lines of communications (SLOCs), such as Timor Leste, Malaysia, Singapore, the Philippines, Myanmar, and, secondarily, Sri Lanka;
- India (and South Asia generally, and particularly issues relating to the stability of Pakistan and Afghanistan, and the reaction of other regional powers such as Iran or the PRC to perceptions of opportunity or vacuum in the region, as well as issues relating to maritime control over the northern Indian Ocean/Arabian Sea and the Strait of Hormuz);
- The United States of America, and its probable withdrawal, to some degree, from key Indian Ocean littoral/hinterland areas, particularly Afghanistan, creating a vacuum which is likely to have significant consequences not only for Afghanistan, but also for Pakistan, Iran, and the northern Indian Ocean;
- Russia in its renewed alliance structures with the PRC and key Central Asian states, particularly as the Shanghai Cooperation Organisation (SCO) begins to take shape;
- Iran as an independent actor and as a full member, potentially, of the Shanghai Cooperation Organisation (SCO);
- Saudi Arabia and the Arabian Peninsula, with commensurate attention to the stability of the Persian Gulf and Red Sea, etc.;
- The Horn of Africa states (Somalia, Somaliland, Ethiopia, Eritrea, Sudan, and — of direct bearing — Egypt);
- Papua New Guinea and South Pacific states¹⁹; and

¹⁹ In particular: the Solomon Islands, Vanuatu, New Caledonia and Fiji. The South Pacific by the first decade of the 21st Century had become increasingly unstable and home to what could be termed failing states, or states which did not meet the classical definition of sovereign viability. This could represent a major strategic issue for Australia, as instability in this region can have implications for Australia's direct security. The continuation of this trend was expected to allow

Trans-national, nominally non-state trends linked to one or more of the states of concern.

The stability of, for example, Egypt, Sudan, Somaliland, Somalia, Ethiopia, and Eritrea are equally critical to Australia, given their impact on the Suez Canal/Red Sea sea-line of communication (SLOC), and Oman and Pakistan are critical to the Persian Gulf-to-Arabian Sea/Indian Ocean SLOC. Many heart-land states in Eurasia and Africa are vital to the stability of those littoral and neo-littoral states so that they, too, are of concern to Australia.

Within this geographic framework, Japan holds the most promise for stability, but could be severely affected by dislocations on the Korean Peninsula, or in the PRC (and the ROC). Further south, India's growth pattern, while significant, gives the appearance of longer-term stability — which may create other types of pressures for Australia in terms of the potential for both cooperation and competition in the Indian Ocean²⁰ — but even India's projected growth could be set back (or changed) by domestic factors, or an implosion in the PRC, or a collapse in, say, the US, Japanese, or EU economies, stemming the demand for the kinds of goods and services on which the PRC and Indian economies are dependent for their growth. The potential for severe political implosion as a result of economic downturns in the PRC has been widely noted²¹, although such a likelihood is less

foreign powers to establish a foothold near the Australian mainland, unless Australia, perhaps with allied support, took steps to prevent this. There was already, by 2006, evidence of greater geopolitical competition in the South Pacific. For example, the diplomatic competition between the People's Republic of China and the Republic of China. See: Graeme Dobell, *China and Taiwan in the South Pacific: Diplomatic Chess Versus Pacific Political Rugby*, Sydney: Lowy Institute for International Policy, Sydney, 2007.

- ²⁰ FDI regards the Indian Ocean region the ocean itself, the littorals and hinterlands — to be the vital strategic dynamic region for Australia, and will, later in 2008, release a Landmark Study entitled Australia's Economic and Strategic Interests in the Indian Ocean Region.
- ²¹ See, for example, assessments contained in *The Other Special Relationship: The United States and Australia at the Start of the 21st Century* (McCausland, Jeffery, *et al*, editors), published by the Strategic Studies Institute, US Army War College, February 2007. In the Introduction, former Australian Governor-General and

anticipated for India, where a more complex political structure (than the PRC) affords a braking capability on severe societal unrest, even though such an eventuality cannot be discounted.

Quite apart from the impact which major unrest connected with China, the Korean Peninsula, or Iran could inflict on the Australian economy, it is clear that the prospect exists, well before 2050, for conflict which will involve Australia in some form or other, either directly or merely impacting Australia's freedom of movement in a trade sense. Equally, for example, activities which have ramifications for Australia in the Pacific, particularly those related to the PRC, could induce a schism in US-Australian treaty relations under the ANZUS accords. Already, early in the 21st Century, Australia and the US have quietly diverged over the issue of the implications for respective ANZUS responsibilities in the event of a possible PRC military engagement with the remaining territorial elements of the Republic of China (ROC) on Taiwan and the other ROC islands.

Australia's maritime operating framework for much of the period to 2050 has already been spelled out by the Royal Australian Navy's move in 2007 into the *Hobart*-class air-warfare destroyers (AWDs), its moves toward a new and more capable submarine class, and its decision in 2007 to acquire two aircapable and very significant *Canberra*-class LHDs (landing, helicopter, deck: essentially littoral assault ships). However, the first half of the 21st Century will increasingly be dominated, in Australia's strategic sphere, by three main factors: (a) highly-competitive and sophisticated submarine threats; (b) the proliferation of supersonic cruise missiles (some with nuclear warheads); and (c) competitive aircraft carrier power projection. It is likely that developments of these technologies will be in service in, or up to, 2050, and this will necessitate Australia to address the potential threat they entail.

former Australian Foreign Minister the Hon. Bill Hayden noted: "What its [China's] history does show is a tendency toward cycles of strong central government followed by decaying at the center and outer fragmentation and disorder as the writ of government breaks down. China appears as if she may be headed in that direction currently. Unfortunately, popular mythologising would have us accept that China is a magic dragon that can defy the basic laws of economics and still succeed."

The RAN will almost certainly need to consider a return to fixed-wing air power projection over the coming decades. The Canberra-class vessels will provide a strong basis for this, and the Navy's continued commitment to aviation — mostly rotary wing — in the recent past and into the 21st Century means that its air power capabilities have remained nascent since the end of its earlier carrier air power phase, with the two post-World War II aircraft carriers, HMA ships *Melbourne* and *Sydney*.²² The question, however, is whether it will be sufficient for Australia to go directly to unmanned combat aerial vehicle (UCAV) development from ships such as the new LHDs or whether Australia must consider conventional carriers capable of taking, for example, the STOVL (short take-off, vertical landing) variant of the F-35 Lightning II fighter which the Australian Air Force plan to acquire. It must be considered that the RAN will operate in a maritime environment in which the PRC's PLA Navy (PLAN) will operate — before 2050 — a number of carrier battle groups; India will operate several carrier battle groups in the Indian Ocean and possibly the Pacific; and Russia may also deploy into the Pacific one or more carrier battle groups. The US, for the foreseeable future, is expected to deploy carrier air capabilities into the Pacific.

²² On June 20, 2007, the Government announced the selection of Australian defence contractor Tenix — working with vessel designer Navantia, of Spain — as the favored bidder for the supply of two large (27,000 ton disp.) amphibious ships which would comprise the Canberra-class LHD (Landing Helicopter Dock) ship program to replace the existing amphibious ships, HMA ships Manoora and Kanimbla. Some one quarter of the construction of the new LHDs would take place in Australia. The construction of the superstructure and the majority of the fitout would occur in Melbourne, with an estimated value of up to \$500-million. The majority of combat system design and integration work would take place in Adelaide, worth up to \$100-million. Each *Canberra*-class LHD would be able to transport up to 1,000 personnel, with six helicopter landing positions and a mix of troop lift (S-70 Blackhawk or NH90 TTH), naval (NH90 NFH) and armed reconnaissance (Eurocopter *Tiger* ARH) helicopters stowed in below-deck hangarage. The "ski jump" bow deck would also be suitable for launching fixed-wing UAVs, and could also serve vertical or short takeoff fighters should fixed-wing fighters (such as the STOVL or carrier variant of the F-35) be ordered for the Navy.

More to the point, it is probable that engagements by Australian land forces over the coming decades will on occasion require integral close air support (CAS) in protection of force insertions beyond the range of Australia-based RAAF combat aircraft. In the same way that Australia has acquired M1A1 *Abrams* main battle tanks to give the ADF the capacity to sustain fully integrated, independent operations, it is necessary to think through the CAS aspect in deploying Australian Army units. In some instances, this will require sea-based combat aircraft to accompany and support the insertion of land forces. Ship-based STOVL aircraft, such as the F-35B, as well as UCAVs, must be considered, even ahead of any thinking on restoration of a conventional aircraft carrier capability by the RAN, and not merely as a matter of sea control, but more importantly in support of land operations.

Moreover, on the subject of the LHDs, it is questionable as to whether the *Canberra*-class ships being acquired will be sufficient on their own for the ADF to sustain a true littoral capability. This capability must include projection of smaller troop and support components ashore within the Indo-Pacific region, as demonstrated by the use of HMAS *Jervis Bay* fast (wave-piercing) catamaran (capable of transporting up to 500 troops) in the East Timor [now Timor Leste] operations following the 1999 referendum on independence for that state. It seems clear that **Australia needs to revisit the idea of procuring Australian-designed and Australian-built wave piercing catamaran/trimaran littoral support ships such as this for the future, given the reality that the LHDs represent a vital, but limited, heavy option.**

Australia will need, during the coming one to two decades, and probably until about the 2030 timeframe, a need to consider greater defence against ballistic missile attack — or the blackmail possibility of such an attack — and deter against it with technologies other than merely the ability to detect hostile missile launches through US-provided satellite sensor early warning or with its *Aegis* and *Jindalee*²³ capabilities. The threat level may well not

²³ Minister for Defence Dr Brendan Nelson on June 28, 2007, announced that the Department of Defence had signed two sustainment contracts with a combined value of \$393-million to maintain Australia's unique *Jindalee* Over the Horizon Radar (OTHR) capability over the coming five years at sites at Laverton in Western Australia and Longreach in Queensland, the radar system site at Alice

warrant the kind of heavy BMD weapons now being explored by the US and Israel, with ground-launched anti-ballistic missile (ABM) systems, but — as technology becomes capable of delivering such solutions — it will need to consider, for example, some ship-launched and aircraft-launched systems capable of handling incoming, and increasingly "smart", re-entry vehicles (warheads). As well, the new capabilities required of Australian naval and air forces will be in the area of defence against high-speed anti-ship and anti-land target cruise missiles, with or without nuclear or strategic payloads.

It is possible (even probable) that new technologies, apart from kinetic/blast weapons, will have replaced the currently-envisaged array of BMD and antimissile missiles by 2050, but Australia's need to progress through some form of BMD/anti-cruise missile capability in the decades to mid-century are undeniable. The BMD capability, indeed, becomes part of Australia's initial consideration of a space strategy, staking out Australia's position on the defence of its space-based assets (communications, navigation, and research/imagery satellites, etc.).

Indeed, it is fundamental that Australia should have a space strategy, and an appropriate capability to plan and manage it, within the coming decade or two, quite apart from defence issues which involve space. The prospect of the use of space for high-speed global transportation will engage Australia within that timeframe unless economic dislocations on a global scale disrupt the growth of the transportation sector. So, absent a possible global economic upheaval (and perhaps even despite such an occurrence), Australia will need to plan for the expansion of its transportation linkages to include near-earth space travel. At the same time, Australia's pioneering rôle in space exploration would need to be revived, sooner rather than later, if Australia is to resume its option of having a decisive say in determining the geopolitics of space. Australia's geospatial context now includes space and, because of the new "tyranny of proximity", it must consider its conventional regional sphere as implicitly embracing, for example, Antarctica and the Southern Ocean²⁴,

Springs, Northern Territory, and at the Over the Horizon Radar Centre of Excellence and the Systems Program Office, in South Australia.

²⁴ The Southern Ocean and Antarctica have long been of strategic interest to Australia; it was only during the Cold War that the region temporarily seemed much of the Pacific, and much the Indian Ocean as being critically integral to Australia's strategic interests.

Within this overall defence framework, although much space is devoted (here and elsewhere) to high-value assets and platforms, particularly for the Air Force and Navy, the reality is that the Australian Army is very much the national security element which is in constant use in a variety of conventional and unconventional rôles. It is significant that, in the first decade of the 21st Century, the Australian Army has begun to receive greater attention within the Defence budget.²⁵ It is clear, however, that the coming decades will require an even greater commitment to Army expansion, and to the use of Reserve elements (in the Army as in all military branches), just as long-term asset planning is already committing Australia to Air Force and Navy systems and assets which will be in service through to 2050 or thereabouts.

less relevant. This irrelevance is likely to change as technology, the distribution of fish stocks, and resource demand alter national calculations and perceptions of the region. Over the period to 2050, the strategic importance of Antarctica could result in it becoming a contested continent. While this is unlikely in the short- to medium-term, a potential for change should be considered. Australia is well served by the current treaty system and the diplomatic arrangements in place. In the future, Australia may need to become a more active participant in diplomatic discussions to protect its interests. Defence planners recognise these new dynamics. In the recent *Defence Update 2007* it was noted that: "Our [Australian] area of paramount defence interest includes, ..., our island territories and the southern waters down to Antarctica." *Australia's National Security: A Defence Update 2007*, published by the Department of Defence, Canberra, July 5, 2007, pp 26-27.

²⁵ On October 2, 2007, for example, Prime Minister John Howard announced that the Army would receive a second additional battalion which would bring the Regular force up to eight battalions of troops by 2010 (up from five in 1996). The latest battalion, the 8th/9th Battalion (8/9 RAR) was re-raised on October 31, 2007, the battalions birthday, and was to be fully deployable by 2010, and equipped with the Australian-made *Bushmaster* Infantry Mobility Vehicle. It is being based at Gallipoli Barracks, Enoggera in south-east Queensland.

Chapter Four

Emerging Australian Requirements of its Military Intelligence, Industrial, Infrastructural, Diplomatic and Other Security Assets

(a) The Intelligence Community: Australia's intelligence capabilities, as with those of most advanced industrial nations, came into real effectiveness in the 20th Century, and particularly the latter part of it.²⁶ Australia's intelligence capabilities, in many respects, are now of a world class, and, paralleling other aspects of its security capabilities, Australia is a "net exporter" of intelligence product to its allies within the framework of the UKUSA Accords, the key intelligence treaty in which Australia is involved.²⁷

As professional as it has become, however, the Australian Intelligence Community (AIC) will increasingly be called upon to perform at an even higher level of capability, and more independently from the UKUSA Accord framework, to ensure that the Australian Government can perform optimally in the fluid regional and global framework of the next half-century. Indeed, Australia, because of its key rôle as a supplier of vital materials for regional states, will be subject to increasingly aggressive surveillance as an intelligence target of foreign powers. At the same time, intelligence — in all of its key forms — will be the vital key to Australia understanding its security and trading environment, enabling it to navigate in such a way as to minimise confrontation.

Australia's IC developed substantially from British models, but in the latter part of the 20th Century became compatible with the US systems, with a heavy reliance on technical means of collection. However, it is significant that

²⁶ See Appendix One: The Australian National Security Community and the Australian Intelligence Community.

²⁷ The UKUSA Accord link Australia, the UK, Canada, and the United States in an intelligence exchange arrangement which theoretically give each member of the Accord access to the highest levels of each others' intelligence product.

Australia maintained a reliance on a strong measure of human intelligence (HUMINT) when the US, under the Carter Administration's effective destruction of its IC, essentially abandoned HUMINT. The result is that Australia maintained a judicious mix of capabilities between human and technical collection.

The US today finds that despite its pre-eminence in technical collection — a capability which Australia could not afford to match, even if it was desirable — it cannot expect to sustain adequate intelligence coverage or strategic situational awareness with technical intelligence alone. It is fortunate, then, that the Australian intelligence tradition has kept a balance of HUMINT and technical means. Moreover, Australia will need to increasingly coordinate its counter-intelligence (CI) or security intelligence with its broad collection functions within the framework of strategic oversight.

It is necessary to recognise that the Australian IC had, by the early 21st Century, developed organically through a variety of processes. As a result, the functions of its various component members are governed by differences in legal structure and legislative authority, and particularly by organisational cultures which differ widely as a result of the origins of each service and the purposes for which they were created. This impacts the way in which they operate and view situations, and how they cooperate. Clearly, the Australian IC appears to cooperate among its membership with greater ease and efficiency than do, say, the ICs of its closest allies, the United States and United Kingdom, but yet without a world view which will be sufficient to handle the strategic requirements of Australia into the new era through, for example, to 2050.

This is in no sense a criticism. Indeed, the Australian IC has developed far more efficiently in the past two decades than perhaps any other IC in the industrialised world. But the changing nature of Australia's strategic needs and the threat environment of the coming decades will necessitate a more overarching and interactive approach than ever before.

In the short-term, while asymmetric threats assail modern societies from a range of terrorist and guerilla activities (from *jihadist* operations to anticapitalist and even animal rights and environmental activists, quite apart from ethno-nationalist based irredentism), security intelligence will be of

increasing importance to Australia (and other states). Significantly, "security intelligence" relates, often, to civil society more than to military or political intelligence activities. Indeed, "security intelligence" has often been perceived as more directly related to counter-intelligence (CI) functions, and in the Australian context, this has placed the primacy for counter-terrorism intelligence with ASIO.²⁸ The CI and security intelligence "culture" and legal framework has evolved separately from active political and military intelligence collection and analysis, but increasingly all elements of the IC are being obliged to function seamlessly.²⁹ This has become vital for the first decade-plus of the 21st Century given the fact that terrorism has become a strategic-level tool, and the fact that no sustained terrorist operation has ever survived or succeeded without the backing of one or more nation-state sponsors. That is as true of the current *jihadist* terrorism (nominally Sunni, but sponsored by Shi'a Iran, for example) or irredentist Sri Lankan terrorism (supported by the DPRK [North Korea], and possibly the PRC, often via

²⁹ Here, as noted earlier in this report, the intelligence process extends beyond the clearly-identifiable members of the Intelligence Community. In relation to "security" intelligence, some work in Australia had been going on since the early 1980s, with ASIO and the Department of Immigration and Citizenship cooperating closely on identifying arrivals who were deemed to be a security risk. Equally, after the September 11, 2001, terrorist attacks on the US, the Department of Transport and Regional Services' Office of Transport Security (OTS) worked with ASIO on threats to transport, in the form of major transport sector Threat Assessments and the whole business of risk management of the potentially most significant terrorist targets. Civil sector organisations, such as OTS, then, become major consumers, and contributors, to the "intelligence" process.

²⁸ ASIO, the Australian Security Intelligence Organisation, is the national "security" intelligence agency and its functions are legislated; the other members of the Australian IC, such as ASIS (the Australian Secret Intelligence Service), are not. In addition the Director-General of Security is the Government's adviser on issues as laid down by the ASIO Act. ASIO is, in that very important sense, separate from the foreign intelligence community. It reports separately to government on resources used by itself and other agencies for "security intelligence" purposes and performs a similar rôle to that carried out by the Office of National Assessments (ONA) for the foreign intelligence community.

Myanmar logistical lines). The temporary strategic primacy of such terrorist phenomena means that such intelligence functions as those of ASIS (foreign strategic intelligence collection and analysis) or the various Defence Intelligence functions, for example, are critical to the specific intelligence functions of ASIO, and *vice-versa*.

It must be borne in mind, however, that historically - and into the foreseeable future - the "principal intelligence officer" of a nation is its head-of-government. Ultimately, the most senior government official must interpret and utilise the intelligence assessments which reach his or her office through a variety of collection and processing means and analytical phases. But while the most senior elected official is the ultimate arbiter of intelligence product, and must decide, on behalf of the electorate, what use to make of that material, it is obvious that he or she must have faith in the collection and analytical process.³⁰ Not only, then, must the apolitical nature of the intelligence structure which feeds the leadership be hallowed, but it also is critical that the capabilities of the structure become familiar to the leadership, and that access to the leadership by the key intelligence officials be guaranteed and constant. Too often in history — even modern history among allies of Australia — has the political vision of an elected leader been frustrated by the failure to marry sound and constant intelligence appreciations with the visionary leadership process elected to office by the citizenry. The fault lies not only with the system, but often with the political leader who refuses to appreciate and utilise the intelligence capacities available.

The intelligence system itself must constantly review its ability to tolerate dissent or differences in appreciations which may arise within, or peripheral to, its own system. Intelligence communities, like all structures (and in many ways more so), are apt to atrophy, linear continuations of past practices and

³⁰ Of course, some of the product is more narrowly-focused than strategic intelligence, and is destined for specific government departments, including the Armed Forces. The same principle applies, however: the policymaker — whether civil or military — is the ultimate determinant of the value and use of the intelligence product. It therefore behooves the policy user (the "client") to understand the intelligence process in order to task it appropriately.

attitudes, and hubris based on their élitism. There is, because of its own selfimposed regulatory system of secrecy classifications, a process which causes intelligence officials to reject information, or appreciations, "not invented here". This often jeopardises relations between the branches of the IC, as well as the openness of the IC to external expertise or perspectives.

This approach characterised the Australian IC (AIC) and national security community more in the past than it appears to do in the early 21st Century, although the methodologies of the AIC still reject — far more than is healthy in a world which is being increasingly characterised by anomie — the notion that external, contracted support can benefit and refresh the thinking of the career government employees within the intelligence sector. Equally, however, it must reject the essentially disappointing experience of attempting to channel so-called "open source intelligence" (OSINT) — the collection of open media reporting into intelligence product — in the form in which the US IC attempted in the post-Cold War period.

Part of the problem facing the AIC and policymakers is that good intelligence outcomes derive from both the wisdom of broadly-based experience and the ability to reject "conventional wisdom". It is therefore difficult for an individual to attain seniority in the AIC without having been conditioned not by a broad base of experience, but by narrowness of focus and dedication, and — in order to build the consensus required to build a career — the rejection of unconventional views. Thus, the rôle of the policymaker as the ultimate arbiter of intelligence is often essential.

Having said that, Australia has been successful in building an IC which has been, in many respects, highly accomplished, resourceful, and effective. There has been a tendency, now waning, for Australians to view themselves as the "junior partner" in the great intelligence coalition in which it is involved, primarily with the US and UK. The reality has been, however, that Australia has been, particularly in recent decades, a "net exporter of intelligence", just as it has been for more than a century a net exporter of security services as a whole.

Australia is well placed with its dedicated — and thoughtfully-constructed — intelligence services to help the national leadership in the decades to 2050. The state governments have, however, not benefitted from this process, and

state-Federal rivalries will almost certainly ensure that this continues to be the case, except in the case of security intelligence (particularly in the counter-terrorism sector). It therefore behooves the state governments to develop their own individual policy intelligence capabilities to help assist them in marketing their states' economic capabilities to potential foreign investors or clients. As well, the Council of Australian Governments (COAG) would also benefit from the support of broadly-based analytical capabilities to help manage the developmental and national management processes from the perspective of state and regional governments, which, of necessity, often differ from those of the national Government.

(b) Coping with the evolving scope and management of the Australian Defence Forces (ADF). The ADF has evolved organically over more than a century, and has been transformed periodically through the intervention of crises or political intervention, ranging from the major wars to the occasional governmental white papers which recognised a transforming strategic context in which Australia must function. As a result, the ADF has benefited from the enormous continuity of historical experience which has served to build standards, loyalty, expectations of quality and performance, and, in most respects, an accrued basis of expertise. Today, the ADF is one of the most respected armed forces in the world.

However, like most military organisations, it must resist the tendency to "fight the last war", and to look more to its proven *methodologies* to address the requirements of the future. Again, the ADF is perhaps more open to change than most defence forces in the world, and this, too, accounts to some degree for its success in peacekeeping and peace enforcement operations globally and particularly in its special forces operations which rely heavily on a unique combination of ingenuity and discipline. Indeed, given the limited size of the Australian Army, consideration should be given to emulating the Republic of China (ROC: Taiwan) Army approach now being developed to consider, in some senses, all Army units as "special forces", capable of highly-flexible asymmetric operations.

There are, in fact, some areas in which a desire to "move forward" with new technologies has been difficult, due to a competition for scarce manpower and financial resources. This was exemplified in the move from the Royal

Australian Navy's *Oberon*-class submarine force to the locally-built *Collins*class submarines. So much emphasis had been placed on working up the new vessels' concepts, construction and operational planning that decades of skills in managing and maintaining the *Oberons* was lost to the RAN, and this resulted in a "submarine gap" in the RAN fleet (between the time when the *Oberons* had to be prematurely retired, and the *Collins* were introduced). Similarly, the commitment to acquiring an air force capability second to none in the world has meant that great emphasis has been placed on the actual combat capabilities with the result that a significantly high proportion of support services for the aircraft have been contracted out to private sector contractors. This trend has become widespread across the defence spectrum, and has enabled an enormous leap in force capabilities, given that budgets could focus on combat-oriented capabilities while competitive contracting approaches could find efficiencies in the support sectors.

In the anticipated fluid strategic environment, involving certain growth in the size of the defence forces and the global scope of their operations, the challenge will be to ensure that the nation has sufficient control over its defence support assets that they can be maintained regardless of changes in the circumstances of alliances or domestic political considerations. However, in times of relatively low threat challenges, such as 2008, the teamwork of private and uniformed sector elements of defence can be developed into a relationship which can endure possible future pressures. A variety of considerations come into play: (i) ensuring that logistical support can survive combat pressures, with possible requirements for a private sector-military teaming during foreign deployments; (ii) the civil sector support can be retained under Australian legal conditions, to ensure that corporate support and capabilities cannot be influenced by foreign ownership; and (iii) Australian control can be assured over classified information and private sector personnel involved in the operations.

It is clear that Australian defence management is evolving, and evolving rapidly. The 2007 Department of Defence National Security Update³¹

³¹ Australia's National Security: A Defence Update 2007, published by the Department of Defence, Canberra, July 5, 2007.

(updating, for the third time, the 2000 Defence White Paper,³² which has been regarded by some analysts as superficial), issued by the then-Minister of Defence, Dr Brendan Nelson, highlighted this growing capability, noting that Australia in 2007 had more force deployed operationally abroad than at any time since the Vietnam War. Dr Nelson, in his preface to the document, correctly notes: "How we defend our sovereignty, our citizens and our interests — and our success in doing so — shapes the future of our nation."

The Australian defence management evolution which had become evident by 2007 was achieved from a strong base. The 1987 Defence White Paper³³, in fact, brought Australian defence management planning into a period of independent thinking, which enabled the ongoing creative process which is the hallmark of Australian defence planning in the 21st Century.

Australia, for example, took an early lead in embracing "jointness": the joint command of defence capabilities under the Chief of Defence Force (CDF), developing management approaches to the control of defence assets which were later to be emulated by the United Kingdom and the United States. At the same time, Australia avoided the pitfalls which Canada experienced in attempting to create a truly single service operating environment, unsuccessfully bringing the Army, Navy, and Air Force into a single service,

³² Defence 2000: Our Future Defence Force, published by the Department of Defence, Canberra, 2000.

³³ Defense Report 1986-87, published by the Department of Defence, Canberra, October 1987, following the March 1987 policy paper, *The Defence of Australia,* 1987. The 1987 documents, released under then Defence Minister Kim Beazley, gave shape to a new policy of national self-reliance in defence issues. This followed the general recommendation of the 1976 policy paper on defence, released by the Government a decade earlier, highlighting the need for "selfreliance", but without specifying policies which would lead to that condition. It was in the Government's Defence Policy Information Paper of 1987 that the decision was announced to transform the deployment of Australian defence assets from their primarily East Coast locations to ensure that half the RAN fleet, for example, was to be home-ported at HMAS *Stirling*, in Western Australia, to provide the Indian Ocean reach which Australia had so long neglected, and to allow for the deployment of air and ground force assets to the North and West of Australia.

regardless of the traditions and environmentally-necessitated cultural differences in the operations of the various service branches.

Australia has now achieved an enviable degree of inter-service cooperation between the Army, Navy, and Air Force, without sacrificing the skill-sets and cultures necessary to the individual services' capabilities. The next stage of this process — the development of a viable Border Control capability and the appropriate assignment of tasks between service elements — is now being developed. This will be critical to the demands of securing Australia's vital infrastructure, much of which is in the nation's "border areas" — the offshore environment — which will become increasingly vulnerable as the regional strategic framework becomes more fluid in the first decades of the 21st Century.

It is likely that, if the strategic environment becomes as fluid as anticipated, and if population levels globally, and in Australia, approximately double in the period to 2050, then the manpower size of the ADF would continue to grow proportionately. This assumes an ongoing commitment to Defence of approximately the same level of GDP as is now the case: some 1.9 percent of GDP.³⁴ However, this may still prove inadequate to the demands of a nation with a strategic commitment which will grow at a higher rate than its direct economic growth. Moreover, it is possible that, in line with global trends, Australia's population could peak and then begin to decline before midcentury. Regardless of population trends, it should be assumed that the goals

³⁴ Significantly, Australian defence spending as a proportion of GDP has declined steadily in recent decades. In the 1967-68 timeframe, during the peak of the Vietnam War engagement, it reached almost 4.5 percent of GDP, declining to 2.8 percent of GDP in 1986-87. Source: *Defence Report 1986-87*. It was subsequently to decline still further as a percentage of GDP, to the present level of some 1.9 percent, even though, as Defence Minister Dr Brendan Nelson noted in June 2007, Australia's defence commitments abroad were at their highest levels since the Vietnam War, when defense spending reached close to 4.5 percent of GDP. This in part reflected the reality that Australia's economic growth meant that the increased defence commitment could be sustained on a lower percentage of GDP than during the 1960s, but the implication remains that a future heightening of defence commitments, or increased threat, would demand a higher percentage of GDP to be devoted to defence.

of Australia in the coming decades will demand that the Australian economy must perform at a significantly more efficient level than is now the case, elevating Australia's *per capita* income/GDP comparative world standing to reflect that the nation's (proportionately) small population must be more productive than its neighbours.

If that is the case, then (a) the direct funding of Defence could rise proportionately at a higher rate than has been the case in recent years (notwithstanding the fact that it may not exceed 1.9 percent of GDP); (b) the competition for qualified manpower would be more extreme even than is now the case, demanding greater use of force multiplication technologies to achieve military goals; and (c) Australia may commit a higher percentage of GDP to Defence than the present 1.9 percent, to meet the growing challenge for Australia to assert its influence regionally and globally. [Prime Minister John Howard noted at the time of the July 5, 2007, release of *Australia's National Security: A Defence Update 2007*, that there had been a real increase of 47 percent in the Defence budget while still committing less than two percent of GDP to Defence spending.]

These pressures and options should face Australian political leaders within the next decade or so. After that, the entire framework becomes less easy to forecast, given the prospect that major reversals or changes could occur in the regional and global framework, dependent on whether or not there is a major economic/political reversal or take-off in the PRC economy, or whether there is a rise or fall in US/Western strategic capabilities and dynamism due to the emergence of the anticipated "Second Cold War" (or at least the realignment of states into semi-formal, competing *blocs*).

The conclusion at this stage, however, is that Australian Defence management is, in many respects, moving forward with greater efficiency than is the case in most countries, with the exception of the development of the Australian strategic industrial base capabilities [discussed below]. Significantly, the high cost of Australian labour has led to the increasing development and use by Australian firms of robotic mining technology, an example of how pressures have traditionally led to innovation.

By 2008, it could be argued that Australia had more global strategic projection capability, *per capita*, than almost any other state: it has global

airlift and power projection capability, a blue water navy of proven effectiveness, and an army capable of fighting independently or in coalition and in peacekeeping as well as offensive operations at a level of effectiveness which can match any in the world (on, as noted, a *per capita* basis). There are clearly still gaps in Australian capabilities, and more will emerge; that is the nature of changing circumstances. The challenges facing Australian defence projection and Australian interests are now more profoundly developing than in past decades, and Australia's qualitative advantage in technology is being challenged daily by its immediate neighbours.

In security capabilities, as with all other aspects of national management, nothing can be taken for granted or left untended over the coming decades until 2050.

(c) Infrastructural Security in a Changing Threat Environment: So much of Australia's wealth and potential is reflected in its offshore gas resources, and the shipping terminals and SLOCs which are vulnerable to foreign, or insurgent, attack. There has been a growing awareness of the vulnerability of installations, pipelines, shipping, terminals, and remote communities around the Australian coastline, and there has, in the first decade of the 21st Century, been an attempt to address this potential threat within the context of enormous demands on the ADF capabilities generally. Despite ongoing criticism of the position of the 1987 Defence White Paper that ADF capabilities should be pushed to the North and West of Australia, the reality is that the redeployed ADF has demonstrated that it has the basis of a capability to more effectively contain threats to Australia's critical export (and domestic energy) infrastructure than would have been the case had the 1987 White Paper (and the preceding 1986 "Dibb Report" by Dr Paul Dibb) not transformed and decentralised the ADF.

This challenge will increase in the coming decades, and not merely because of the more fluid strategic environment, but also because of the increasing technological capabilities of both formal and insurgent forces potentially challenging Australia. Moreover, the need will become evident for Australia to further develop its onshore terminal infrastructure as Australia moves to become — in the first and second decades of the 21st Century — vastly more dependent on imported petroleum. This will imply not only the development

of more petroleum terminals at Australian ports, but also a substantial increase in the number of oil tankers servicing Australia.

This means (a) that the absence of a foreign-trading Australian-flagged tanker capacity capable of meeting the demand will leave Australia vulnerable to foreign priorities in the delivery of a critical national fuel requirement, and (b) Australian interests will also be reflected in the security of foreign oil supply installations (extraction and terminals), making Australian security interests dependent on the stability and survivability of supplier states. This places new demands on the ADF as well as on Australia's diplomatic services.

Energy exports and imports are not the only infrastructural security concerns which Australia must face.³⁵ Other offshore resources are also vulnerable, including (and particularly) fisheries and the possible development of Antarctic energy resources in what must be considered the area of Australian "strategic depth" to its south. Growing integration between the Australian intelligence services, its defence forces, fisheries management, immigration control, and Australian industry will be necessary. Significantly, Australia has witnessed, in the immediate post-Cold War era, a growing sense of cooperation between government and industry, ending a century of aloofness by the governmental sector toward the commercial sector.

(d) Future demands on Australia's strategic industrial base and skills base: It became axiomatic in the resources boom which continued through 2007 that Australia's rapidly-growing commercial and resources sectors was able to

³⁵ A critical accident on June 3, 2008, highlighted the vulnerability to natural or manmade disruption of Australia's offshore (and onshore) energy infrastructure, an issue constantly raised by FDI. A pipeline rupture, leading to an explosion and fire at the Apache Energy gas processing plant on Varanus Island, more than 110km off the Western Australian coast, near Dampier, cut off gas supplies to much of the State for an anticipated several months. The Apache plant, which supplied about 30 percent of Western Australia's gas needs, was critical to the ongoing minerals production in key areas of the state. Operations at more than 40 major industrial concerns were severely affected, and State Premier Alan Carpenter said on June 10, 2008, that the incident was the most serious challenge his Government had faced in eight years in office. The full ramifications of the incident were not known as this Paper went to press.

compete successfully in attracting the most qualified manpower, making defence recruitment goals and urban industrial employment needs more difficult to meet. However, it is significant that, despite the attraction of highly-paid employment in the resource and services sectors, the Armed Forces were, in 2007, competing surprisingly well for manpower, although only the RAAF was meeting its requirements; the Army was having difficulty raising the strength required for its new battalions (and will not do so on schedule); while the RAN was operating at only 63 percent of approved strength. As a result, the RAN is able to only man three of its six submarines, and is hiring retired specialist naval personnel as civilians on some key Persian Gulf missions. The RAN was forced to pay off two FFG-7 frigates early because of manpower issues.

In the defence industrial sector, fear of an inability of shipyards to meet the manpower requirements necessary to build the new warships the RAN needs led to the Australian Government/Defence Department decisions in 2007 to subcontract much of the basic hull construction work on the new, three-ship, \$8-billion F-100 (*Hobart*-class) Air Warfare Destroyer (AWD) programme and the two-ship, \$3-billion LHD (*Canberra*-class) programme to the Spanish Navantia shipyard.³⁶ This approach to meeting RAN platform requirements, however, failed to sufficiently address the long-term needs which Australia has to meeting its need for a balanced strategic industrial capability. It is significant that Australian naval planners somehow assumed that the burgeoning Spanish economy was not suffering the same problems as Australia, and could meet its own requirements for warship construction and

³⁶ See earlier note on the acquisition of the *Canberra*-class LHDs. The Government on June 20, 2007, also announced the selection of the Navantia-designed F-100 as the next generation Air Warfare Destroyer (AWD) for the RAN. The first *Hobart*-class *Aegis*-equipped AWDs would be delivered in late 2014, followed by the second and third ships in early 2016 and mid-2017 respectively. Under the \$8-billion overall program, Spanish shipbuilder Navantia would work with the AWD Alliance (Defence Materiel Organisation, ASC and Raytheon Australia). Australian Industry would deliver around 55 percent of the basic \$6.6-billion AWD Programme over the next 15 years (from 2007), which would be followed by high value through life support contracts into the middle of the 21st Century.

still be able to have the manpower to build hulls for Australia.³⁷ It was true that both the AWD and LHD programmes — like the F-35 fighter aircraft programme — would provide extensive work and skills enhancement into the Australian industrial sector, but to a key degree, Australian project leadership was sacrificed for short-term economic gain and the certainty of acquiring a proven system.

Australia's vast areas of oceanic responsibility, coupled with the significant proliferation of conventional and nuclear submarines in the Australian sphere of interest, means that the ADF faces an almost overwhelming antisubmarine warfare (ASW) challenge. The RAN needs a common ASW helicopter for all fleet elements, and these aircraft must carry a dunking sonar. A towed array is essential for all RAN frigates and the new AWD. Up-to-date ASW electronics across the whole spectrum are, in fact, essential, and **Australia's small but significant defence electronics industry thus becomes a critical element of the nation's defence industrial base.** Protecting the RAN's new LHDs and AWDs make this capability vital in Australia's increasingly fraught submarine environment. With that in mind, this study recommends that consideration should also be given to creating an emplaced Australian-developed and -owned and -controlled SOSUS (SOund SUrveillance System) underwater array across the maritime areas around the nation's north.

In the case of the proposed acquisition of up to 10 Boeing P-8A *Poseidon* maritime patrol aircraft — based on Boeing 737 airframes³⁸ — to replace the RAAF's fleet of Lockheed P-3C *Orions*, little has yet been negotiated in the

³⁷ The Spanish economy could be said, in 2007, in some respects to be facing greater skilled manpower constraints than Australia, with its high growth rate and the active recruitment of Spanish workers into the European Union (EU) economy. Spain, with a 2005 population of 43.4-million, had a GDP in 2005 of US\$1.1-trillion, and an annual growth rate of 4.4 percent, compared with Australia, which in 2005 had a population of 20.3-million, a GDP of US\$732.5-billion, and an annual growth rate of only 2.8 percent. Source: World Bank, July 9, 2007.

³⁸ It is worth noting that the Boeing 737 has been in production, with extensive and ongoing modifications and upgrades, since 1967, and that the basic airframe design will be, by 2050 — when the airframe is still expected to be in service with the RAAF — 83 years old.

way of workload sharing or significant technology transfer-based offset options as part of the *quid pro quo* for the purchase. Given that the P-8s will be in RAAF service until at least mid-century, such a contract presents one of the few options for Australia to ensure that it may acquire, as part of the process, significant technological and economic benefits.

The degree of conservatism in defence procurement — in which short-term economic gain and the supposed certainty of acquiring "proven systems" — may provide some short-term comfort to Australian defence planners, but these kind of decisions do not pave the way for Australian industry to develop its already-proven skills in ship design, aircraft design and manufacture, and systems integration. Indeed, a comparison of the 2000 defence review, *Defence 2000: Our Future Defence Force*, and the 1986-87 Defence Report shows that the 1986-87 situation was far different: a wide range of Australian-designed and -built defence systems were in place and ready for export.³⁹ The 2000 review highlights no indigenous Australian total systems available for export (even though some existed, such as the Australian-built but Irish-designed *Bushmaster* Infantry Mobility Vehicle, now produced in Australia under French and US corporate backing⁴⁰).

³⁹ In 1986-87, as the Defence Dept. report noted, Australia was producing total systems such as the indigenously-designed N-22 *Nomad* twin-engine aircraft, the *Nulka* ship-launched electronic decoy system, the *Super Ikara* ship-launched anti-submarine missile, and so on, and was building under license the Pilatus PC-9 trainer aircraft and the (then) McDonnell Douglas F/A-18 *Hornet* fighter. It was also to produce the new ANZAC frigates, using a *Meko*-200 (German) hull design but an indigenous approach to systems, and then the *Collins*-class submarine (based on a Swedish hull design, with mainly US combat systems).

⁴⁰ The Bushmaster Infantry Mobility Vehicle is an Australian built wheeled armoured vehicle designed by Irish company Timoney Technology Ltd. and produced by Thales Australia. By mid-2007, there had been two export customers for the Bushmaster IMV: the Dutch Army, which bought 25 of the vehicles in July 2006; and the United States was looking in 2007 at the possibility of buying Bushmasters to meet its MRAP (Mine Resistant Ambush Protected) II vehicle programme. Significantly, the Bushmaster option — arguably the best MRAP option available — was not selected by the US Army and Marine Corps largely

The question is not whether Australia should avail itself of safe, proven designs from the world market, but when it will develop project leadership, thereby ensuring that it can control not only the platforms and systems for its own use, but also to become a market leader in developing major systems in the aerospace, electronics, shipbuilding, and vehicle-building arenas. There is no doubt that Australia has the technological and industrial skills to achieve almost any defence matériel objective it sets; the technical and strategic evaluation skills within the Defence Department and the ADF have demonstrably been proven to be second to none, and Australian Industry Participation (AIP) in major collaborative defence equipment programmes has, without exception, been of a world standard. What has been lacking, in many instances, however, has been the confidence to initiate and support Australian project leadership in some key areas of procurement, with officials (advising politicians) preferring to defer to foreign systems, usually in the name of expediency. Generally, however, such decisions highlight deference to an unwillingness to take leadership industrially and politically, and a willingness to sacrifice project leadership for short-term budgetary savings.

The F-111 and F-35 projects have both demonstrated that, by placing Australian interests in the hands of a foreign procurement process, Australia has paid a significant premium in overall financial terms, and in terms of operational readiness timelines. This may be less strategically acceptable in the coming decades when Australia is expected to be more dependent on its own resources to meet its regional challenges.

In testimony before the Australian Senate Foreign Affairs, Defence and Trade Committee Inquiry Into Naval Shipbuilding, on April 3, 2006, this writer, giving testimony as an FDI Director, noted:

[T]he planning for an economically viable, strategically critical Naval construction and support capability within Australia has never occurred. Australia, for commercial reasons, and during the two World Wars, developed an innovative, world-class shipbuilding, aerospace, and defence industrial capability, much of which was not only allowed, but

because of the lack of viable marketing (and Australian Government support) to the US Government.

encouraged, to dissipate with the end of major hostilities so as not to compete with "parent" British capabilities. It is worth recalling that Australia developed the first motorised torpedo in the world, as well as developing many of the initial, and follow-on, milestones for the world aerospace industry, and in all instances abandoned the leadership it should have retained in these arenas.

Theodore Roosevelt, before he became US President in 1904, was appointed as Assistant Secretary of the Navy in 1897, after having already authored the well-received *History of the Naval War of 1812*. It was from that early "bully pulpit" that he began to shape the destiny of the United States as a great, self-sustaining and wealthy power by ensuring the US the ability to defend its seaways. He not only foresaw the changing global strategic dynamic, he also understood the specialist technologies which were then required to develop the US shipbuilding industry to make it independent of foreign supply. This marked the beginning of US strategic capability, which blossomed into certainty — and success — when the US went to war with Spain in 1898.⁴¹

The testimony continued:

Australia's shipbuilding industry, in the private sector, has demonstrated a strong capability toward innovation, speed, and economy of action. Australian ship exports have grown significantly, including the export sale of Australian designed and built patrol vessels during the past few years to the Republic of Yemen (10 *Bay*-class-derived fast patrol boats for the Yemen Navy; patrol vessels for the Kuwaiti Ministry of Interior, etc.). Moreover, Australia in the 1990s and early 21st Century successfully built an entirely new submarine construction industry and a new class of submarine (*Collins*-class) which surpassed virtually any other conventional submarine capability in the world.⁴² The fact that the then-

⁴¹ Copley, Gregory: Comments Pertinent to the Inquiry Into Naval Shipbuilding by the Senate Foreign Affairs, Defence and Trade Committee, Parliament of Australia, Perth, April 3, 2006.

⁴² See also, for example, Yule, Peter; and Woolner, Derek: *The Collins Class Submarine Story: Steel, Spies and Spin.* Melbourne, 2008: Cambridge University

Government-controlled Australian Submarine Corporation (now ASC) failed to capitalise on this capability in the export marketplace reflected not that the industrial capability was inferior, but that the corporate management and export experience were insufficiently experienced and open to competing on the world market.⁴³ Moreover, it is worth comparing the fact that Sweden, a country substantially smaller than Australia in population and GDP terms, not only designed and produced the original submarines on which the *Collins*-class was based, it also produces one of the few fourth-generation advanced fighter aircraft in the world.⁴⁴

Press. Peter Yule is based at the University of Melbourne; Derek Woolner is based at the Australian National University, Canberra. This excellent and carefully-researched study demolishes the ill-informed critics, particularly in the media, of the *Collins*-class submarines in the RAN. The reduction of public and government interest in innovative Australian industry is in part a product of the ignorant and essentially deceitful criticism of the *Collins*-class submarine project. One thing which was highlighted in the Yule and Woolner book was the brilliant performance of DSTO on helping the *Collins* submarines meet Australia's unique maritime environment. The anachoic tiles in particular were world beaters and of great interest to the US Navy. ASC now has the Western world's (Japan excluded) only long-range conventional submarine design team. There is a danger that this could be lost when ASC is privatised without serious attention by the government to the need to retain Australia's world leadership in this core area of need.

- ⁴³ Australian Submarine Corporation, for example, failed in the 1990s to follow up direct offers of introduction and help in promoting the sale of Australian-built submarines to the Egyptian Navy, despite guaranteed US funding of the project, even though the then-Commander-in-Chief of the Egyptian Navy had requested such help. ASC officials, who had no direct knowledge of the situation, dismissed the request as fanciful.
- ⁴⁴ Sweden's population in 2006 was 9.08-million, compared with Australia's almost 20.7-million in the same year. GDP comparisons are Sweden US\$383.8-billion (2006); Australia US\$780.53-billion (2006). Australia, in 1946, produced the world's fastest piston-engine fighter, and later designed the fighter developed in the UK as the English Electric Lightning. Today, Australia produces no major

Significantly, Australia now also produces an advanced offshore patrol vessel, the Armidale-class, and its wave-piercing catamaran hull designs are on order by the US Navy and have been copied and utilised in missile attack craft of the People's Republic of China's People's Liberation Army-Navy (PLAN). There is, then, no shortage of innovation and project leadership capability in Australia, in any of the advanced scientific or industrial areas relating to Australia's national security self-reliance. What is essentially lacking is the commitment at a governmental level to returning Australia to a position where it designs, builds, and — where possible — exports advanced defence systems to the world. There is, after all, little reason other than short-term commercial advantage why (a) key elements of the Australian defence industry have been permitted to be sold off to non-Australian interests (without diminishing the need for international cross investment in high-tech industries), or (b) Australia should have abandoned the project leadership in major defence systems which had developed in government and private facilities in two World Wars.

(e) Transforming Australian diplomatic resources to meet the changing world: This *FDI Occasional Paper* has stressed the growing requirement for integrated Australian security strategies, and particularly the need for Australia to position itself with a blend of "hard" security options, such as the ADF provides, and "soft" options, such as diplomacy, culture, and trade provide. The key to constraining the demand for far greater military spending, then, is in the integration of military and diplomatic capabilities to a far greater degree than is presently the case. Defence, then, has a vested interest in understanding and assisting policy development with regard to the Department of Foreign Affairs and Trade (DFAT), and so the following comments on DFAT should resonate with Defence in its approach to the new Defence White Paper thinking.

It is clearly important for Australia's future diplomats in the training which they receive in tertiary institutions to comprehend not only Australia's regional neighbours, and the various cultural and ethnic groups living in the region, but also to understand the region in security and military terms.

combat or civil aircraft as a prime contractor; Sweden produces light transport aircraft and the Saab JA-37 *Gripen* fourth-generation fighter.

While, in the past, Australia possessed a solid base of knowledge of its neighbours, this existing stock of regional expertise has diminished over the past two decades. There also is a trend within university humanities departments to favour theoretical debates, or very narrow aspects of a single culture, and often sub-cultures. This does not assist students who, in the future, would be working in the region, and would potentially be deployed in Australian-led regional efforts, such as the Regional Assistance Mission to Solomon Islands. For example, despite the importance of Papua New Guinea and Solomon Islands to Australia, and the large number of Australians working in these countries, there remains a critical shortage of Australian academics with expertise on Melanesia.

Ideally, there is a strong case to be made for the cross-fertilisation of studies by Australian defence and diplomatic officials so that each understands the complementary rôles and missions of the other. Given the concept that Australian security — and Australia's projection of its interests onto the international stage — is a "whole of government" affair, the continuation of common educational experiences for defence, diplomatic, and intelligence officials is of prime importance.

Clearly, Australia has had a century to become adept at using diplomacy to protect its own interests. Its diplomacy, by 2007, had become highly professional, and the demands on DFAT will become even greater as Australia moves toward mid-century. The belief that, with modern, real-time communications and news gathering, diplomacy's days are over is incorrect: nothing will compensate for the deeply-based experience of foreign cultures and priorities which can be gained from on-the-ground diplomacy. Australia has demonstrated a strong belief in using this experience, often moving top diplomats into other areas of policy and intelligence leadership. This works very much in the national interest.

Prime Minister Kevin Rudd's early commitment to increasing the emphasis in Australian education on teaching Asian language skills resonates with the importance of deep and effective military and civil diplomacy. **This study recommends that consideration be given to expanding the already highlyprofessional commitment of the ADF to foreign language training along the**

lines of the US Defense Language Institute Foreign Language Center (DLIFLC) to provide culturally-based foreign language education.

The ADF and Defence Department have traditionally served as extremely effective representatives of Australia abroad, and the importance of military diplomacy to the achievement of Australian strategic objectives cannot be underestimated. Indeed, this reflects that the "whole of government" approach also applies to diplomacy, and DFAT needs to recognise that defence relationships with foreign officials often leads to rapid, meaningful results, especially where ADF and Defence officials have strong cultural and linguistic understandings of their foreign counterparts.

It is clear, for example, that the actions of Gen. Peter Cosgrove in East Timor in 1999 proved a classic example. Gen. Cosgrove literally "talked his way into East Timor" (now Timor Leste), personally ensuring that the security situation did not get out of hand and deteriorate into major violence and military confrontation with Indonesia. Much of this was done with the cooperation of the Indonesian Commander at the time because of the deep ADF military diplomacy with TNI (*Tentara Nasional Indonesia*: the Indonesian National Military Forces).

There is a strong case to be made for enhancing and formalising many aspects of training for Australian military diplomacy, including consideration of the means to develop this formally alongside, and with the cooperation of, DFAT.

(f) Determining outcomes without open confrontation: The great powers have historically risen to prosperity by achieving their strategic objectives without taking the obvious and visible military, diplomatic, or commercial steps which could generate resentment, or responsive opposition, by other societies. While all of the maxims of Sun-tzu are beneficial to good governance, in this respect, two of his maxims are particularly apt: "... to fight and conquer in all your battles is not supreme excellence; supreme excellence consists in breaking the enemy's resistance without fighting", and "All warfare is based on deception".⁴⁵

⁴⁵ Giles, Lional: *Sun-tzu on The Art of War*. Early 20th Century translation.

Australia has, historically, eschewed strategic progress through indirect means. It may not be possible for it to achieve the kind of security and economic success it requires through the turbulent and changing period of the first half of the 21st Century if it continues to reject the option to use tools of indirect and secret manoeuvre. The best known — but rarely discussed — examples of governments shaping the world consciously through "active measures" and a variety of other aspects of perception management in the past century have been the United Kingdom, the USSR, the People's Republic of China, and pre-World War II Germany.

Essentially, these governments used dedicated officers and organisations to undertake operations under the rubric of "psychological strategy", using selective tools of propaganda, psychological warfare, political warfare, and image manipulation (including deception, "active measures", and the like). The US continues to have identifiable organisations — quite apart from dedicated government information arms which may be termed "white propaganda"⁴⁶ organs — to undertake psychological operations, or "psywar". The US Armed Forces, for example, has a number of units dedicated to "white" and "grey" propaganda techniques, such as the Army Special Warfare unit known as the 4th Psyops Battalion, and the US Air Force's specialised airborne units utilising broadcasting capabilities aboard modified C-130 *Hercules/Combat Talon* transport aircraft. But the tactical psywar or propaganda units are routine and insignificant in the long-term, overarching sphere.

⁴⁶ "White propaganda" equates to identifiable and directly-attributable government actions to openly promote its views; "grey propaganda" (or "grey ops") are those operations which, by virtue of their message, are assumed to be attributable to, or sponsored by, an identifiable government; and "black propaganda" ("black ops") are completely deniable and unidentifiable as to source or apparent motive. For a brief introduction to psychological strategy, and its differences from psychological warfare (a subordinate art), see, Copley, Gregory: *The Art of Victory: Strategies for Personal Success and Global Survival in a Changing World*; New York, 2006: Simon & Schuster's Threshold Editions; Chapter Nine: *Positioning Perceptions for Victory*.

Psychological strategies and the achievement of the nation's long-term national policies and goals — its "grand strategy" — are, however, undertaken at a policy level. In the United Kingdom, where such psychological strategy was aimed at Britain's foreign objectives, a department in the Foreign & Commonwealth Office handled the collection of intelligence which specifically aimed at understanding the underlying perceptions and attitudes of foreign audiences, and geared approaches aimed at delivering Britain's messages to those audiences in a manner most conducive to their reception. The Soviet Union's COMINTERN (Communist International) also developed, under Karl Radek, as Moscow's pre-World War II psystrat arm, and this became more refined under Radek's successor, Boris Nikolayevich Ponomarev, in the re-shaped COMINTERN, the International Section (IS) of the Communist Party of the Soviet Union (CPSU).

There is nothing inherently antithetical in the use of professional psychological strategies by the Government of Australia. The approach merely recognises the need for a professional capability to help shape Australia's goals and messages in a manner which makes them palatable to the various international arenas in which Australia must function. Its goal, in essence, is in ensuring that foreign audiences and leaders — who invariably come from a different linguistic, cultural, and belief system from Australians — receive in their own terms of references the message which Australia intends for them, obviating the misunderstandings which arise from messages which may be understood at home but become confused abroad.

Without going into further detail in this unclassified study, it is worth recommending that Australian policymakers in future view developing this option as a separate discipline linked to, but not necessarily subordinate to, the intelligence community, for enhancing national strategic activities in a world which will become increasingly complex and difficult to influence.

(g) Achieving Security and Safety Objectives with Minimum Profile: The question of "homeland security" has been raised in Australia, and all countries, since the September 11, 2001, terrorist attacks on the United States. The current "age of terrorism", or, rather, "phase of terrorism" will pass as the period of global unrest transforms into a new and stable framework, and this may well occur within the first decade and a half, or by

the end of the second decade of the 21st Century. Moreover, terrorism itself, while highly disruptive to society, is not *per se* the main concern which should drive "homeland security" management. The key driver is the continuing global — and Australian — population levels through the first half of the century.

Australia will, over the coming half-century, continue to become a more diverse society, and under almost all foreseeable scenarios it will be highly interactive with its neighbours. And there will be, for varying periods during the coming half-century, occasions when (a) Australia's offshore and coastal resources will be encroached upon; (b) illegal immigration pressures will rise; and (c) attempts will be made to penetrate Australia for illegal purposes (transnational crime, terrorism, etc.). As well, envisaging a period of possible climate fluctuations — with as-yet unforeseeable consequences — there are likely to be perhaps increasing challenges to the safety of Australian citizens due to natural disasters.

Australia has already responded in many ways to these challenges.⁴⁷ The creation by Defence of the Border Protection Command began, in the first

⁴⁷ Then-Minister of Defence, Dr Brendan Nelson, said in his National Security Review of July 2007: "Defence contributes some 450 personnel to the whole-ofgovernment operation protecting our borders. Operation *Resolute* provides greater flexibility in using assets such as ships and aircraft without reducing the number of ADF platforms on the operation or the hours they spend on task. Under Operation Resolute the ADF supports the Government's Civil Maritime Surveillance Programme, which protects Australian fisheries (including in the Southern Ocean) and provides guarantine, customs and environmental security. This effort aims to deter and prevent unauthorised boat arrivals and provides an offshore maritime security response against maritime terrorism." "Operation *Resolute* is controlled by the Border Protection Command (BPC), which has assumed responsibility for operational co-ordination and control of both civil and military maritime enforcement activities within Australia's Exclusive Economic Zone (EEZ). The BPC is staffed by military and civilian officials from Defence, Customs, the Australian Fisheries Management Authority (AFMA) and the Australian Quarantine Inspection Service (AQIS). Significant ADF resources add muscle to the Government's coordinated effort to protect our offshore

decade of the 21st Century, to fill the gap in coordinated protection activities, and complements a range of other border protection, internal (including transportation) security, and disaster response capabilities. The various state emergency services (SESs), state police forces (and their respective intelligence capabilities), coordinated under the Commonwealth Counter-Disaster Task Force (CCDTF), all show signs of increasing cohesiveness at a level which exceeds such coordination in other countries, even the United States which began its "homeland defence" structuring after the September 11, 2001, attacks.⁴⁸

The depth of Australia's border security and emergency response capabilities lies not so much in its dedicated forces, but in the coordination and cooperation which flows through various agencies of the Federal and state governments and into community-based services (such as the St. John's Ambulance Service). There will, inevitably, be calls for the expansion of dedicated services to meet border, EEZ (exclusive economic zone) protection, and natural disaster response requirements. Indeed, the Coastwatch service was one such element of a dedicated response capability, providing input into the joint Defence/Customs Border Protection Command (BPC), utilising a fleet of increasingly sophisticated surveillance aircraft.⁴⁹

assets and deter and respond to illegal immigration, smuggling, fishing and other threats."

- ⁴⁸ The Attorney General is responsible for disaster and emergency management matters. The agency through which the Attorney General exercises this responsibility is Emergency Management Australia (EMA). The senior interdepartmental body responsible for providing policy advice and for overseeing interdepartmental arrangements for providing recovery assistance to the States and Territories is the Commonwealth Counter-Disaster Task Force (CCDTF).
- ⁴⁹ By 2007, Coastwatch was being equipped with 10 Bombardier *Dash 8* twinturboprop aircraft, two long-range helicopters, and one rapid response helicopter based in the Torres Strait. The *Dash 8* aircraft were, in 2007, being fitted with improved electro-optic, infrared sensors and radars to enable detection of significantly smaller targets and targets at a greater range. From 2007-2008, Coastwatch was to upgrade its fleet in stages to 10 *Dash 8* aircraft comprising six *Dash 8-202* aircraft and four *Dash 8-315* longer endurance

In the meantime, it should be recognised that regional disaster response remains one of the principal functions of the ADF. This study recommends that the ADF develop a specialist training curriculum to equip designated command personnel with disaster response skills, including long-term follow-up capabilities, bearing in mind that the legacies of major natural disasters, quite apart from the immediate humanitarian concerns, can profoundly affect the stability of societies and their governments — and therefore affect Australia's interests — over long periods of time.

The development of both disaster/emergency response and border protection capabilities seemed set to evolve to cope with anticipated contingencies into the 21st Century, although the requirement for cooperation between the onshore emergency response capabilities, the transportation security services, Coastwatch/BPC, and various state and Federal intelligence capabilities would clearly grow organically as the situation warranted. Clearly, this is an area of cooperation of existing and developing capabilities which cannot be neglected.

Significantly, there is also a potential rôle in the Coastwatch and EEZ protection missions — among other missions — for the RAAF's older C-130H model *Hercules* transports as they move out of the conventional military transport mission with the addition to the fleet of newer-model C-130J aircraft and C-17s. New technology becoming available in 2007 allowed, firstly, the C-130H models to be upgraded to C-130M status, giving C-130J capabilities and more for a fraction of the cost, but also allowing the aircraft to be used as hosts for unmanned aerial vehicle (UAV) deployment to offer far greater coverage of Australian exclusive economic zones with far fewer personnel and aircraft. As well, converting the C-130Hs to M models has the prospect of providing highly-capable, specialised aircraft to support Australian special operations missions.

aircraft. All aircraft were being fitted with: improved Electro Optic and Infrared Sensors which provide significantly improved visual identification distances compared to the current contract; improved radar which is able to achieve greater detection distances against a target; and improved Surveillance Information Management System (SIM) which would be a highly integrated and automated system to manage surveillance sensors and communications.

Under the newly-available technology, the C-130Ms, with long-range wingtip fuel tanks to offer great range, could host (launch and retrieve in mid-flight) up to five long-duration UAVs, including armed UAVs (UCAVs), which could undertake surveillance of broad areas of ocean (or land terrain), and could even intercept military surface targets. The Canadian Armed Forces were understood to be investigating this capability for its retiring C-130E/H models, particularly for Arctic surveillance, as of 2007, even as Canada ordered new C-130J aircraft.⁵⁰ Australia's Antarctic-Southern Ocean surveillance requirement is likely to match Canada's own growing Arctic mission needs over the coming decades.

The ADF has long pioneered the use of UAVs, and is well aware of the necessity to supplement expensive and scarce manpower resources with technology, and particularly UAVs. A strong possibility exists for Australian industry to support the ADF on the Coastwatch and other missions with the conversion of the RAAF's older C-130Hs and the addition of tailored UAV technologies.

Australia's Access to Transforming Technologies and Capabilities: Alliances and Domestic Supply

Australia has demonstrated in two World Wars and through the last Cold War that it had the capability to develop, manufacture, and effectively deploy key technologies capable of affording its defence forces a performance advantage — or at least relative parity — with its adversaries. Significantly, many of the technological and industrial capabilities developed to meet these crises or requirements in the arenas of ground, naval, air, and space systems were subsequently "demobilised" when the crises ended. [See Chapter 4 (d), above: *Future demands on Australia's strategic industrial base and skills base*.]

⁵⁰ See, for example, Weekly Global Report, March 26, 2007: "Overcoming the 'Besieged Castle' Syndrome by Using Technological Creativity to Manoeuvre Against Low-Cost Attack; Perfect Psycho-Technology Strategy: The Case of Marrying UAVs to Obsolescing C-130s".

The challenge facing Australia today is whether the timeframe of emerging new threats — coupled with the potential for dislocation of foreign support — will allow Australia to repeat its performances in those earlier crisis situations. Several factors impact this:

- (a) Divergent priorities with allied states on which Australia is dependent, leading to restraint of supply of, or the reduction of support for, essential capabilities;
- (b) The speed with which new threats and requirements may emerge; and
- (c) The possible decline in Australian industrial capability to respond to the need.

Australia has remained highly-innovative in the development of technologies and in its commitment to pure and applied sciences. This innate capacity, both within government organisations, universities and other institutions of higher study, and in the private sector, is at the key to Australian strategic growth and independence into the 21st Century. Quite apart from, for example, private sector innovation in the aerospace, shipbuilding, electronics, and food manufacturing industries, a number of institutions shine as beacons of Australia's commitment to scientific and industrial excellence, such as the CSIRO (Commonwealth Scientific and Industrial Research Organisation), Australia's national science agency formed in 1926 and now one of the largest and most diverse research agencies in the world; and the highly-capable Defence Science and Technology Organisation (DSTO) (which, for example, developed the world-leading *Jindalee* OTHR).

It is easy, in an age when Australian industry champions the cause of valuable sub-contracts (and solid technology transfer) in, for example, the F-35 Joint Strike Fighter program, to forget that Australia has, in many respects, been a "net exporter" of scientific achievements, just as it has been a "net exporter" of agricultural products, mineral resources and mining services⁵¹, security services, and intelligence product. Australia's innovations in aerospace and

⁵¹ For example, some 70 percent of the world's mining software is now written in Western Australia.

aerospace electronics have been profound since the late 19th Century, and many Australian inventions or developments were proven to be the backbone of considerable progress in the world. The creation, for example, of the first viable heavier-than-air aircraft design — the *Boxkite* design — by Lawrence Hargrave, given freely to the Wright Brothers to use for their first successful powered, manned flight in 1903, is a case in point.

Australian economic and security progress will in large part depend on a continued commitment by government (including state governments) and industry to ongoing R&D, and a willingness to support Australian visions of scientific and industrial solutions. The current case of the development of the Scramjet concepts of rocket propulsion by the University of Queensland is a significant example of the Australian approach of applying innovation ahead of budget considerations to finding solutions.

Chapter Five

Meeting Leadership and Manpower Requirements to Achieve Strategic Objectives

Australia's national security community, and particularly the ADF — which is, like all military forces through history, a "priesthood" which removes its members from mainstream society — must compete with an increasingly wealthy private sector to attract quality recruits. This task will therefore become more difficult in the first decade (and perhaps more) of the 21st Century, as Australia meets its goals of economic growth with higher *per capita* demands for productivity. This implies that the ADF will be forced to continue to "do more with less". And yet the growth of Australia's strategic requirements — in terms of geographic deployment spread as well as mission demands — is such that the ADF will be required to do *far* more than ever before with less access to manpower on competitive terms with the private sector.

Given that Australia must perform its regional and global military functions with only around 60,000 uniformed personnel, the investment in the lives, capability, mission effectiveness, and morale of its forces is the primary concern of Defence and the ADF. Australia can and does acquire the best defence systems to ensure the "multiplication" of effectiveness of its limited manpower pool, and recent events have demonstrated that funding is more readily available to the ADF than is a strong supply of qualified manpower.

This report emphasises, then, that whatever can be done to ensure the survivability and ongoing mission effectiveness of its forces must be of primary consideration in defence planning. The new initiatives to ensure greater survivability of troops in Australian Army vehicles — from soft-skinned transports to *Bushmaster* armoured vehicles, M113 armoured personnel carriers (APCs), and follow-on procurement of an improved ASLAV (Australian Light Armoured Vehicle) — facing landmine or IED (improvised explosive device) attacks must be given high priority, especially in light of new battlefield experience which highlights the seriousness of the threat to

life and health of the secondary effects of blast caused by the phenomenon known as "slamdown". It is regrettable that the recent, and expensive, program to upgrade and restore the M113 APCs to service did not address personnel survivability and comfort issues which are critical to mission effectiveness.

The ADF has rightly insisted on maintaining quality levels in terms of professionalism and equipment, and this is the key to sustained productivity levels in the Armed Forces. Nonetheless, that route does not offer an infinite capacity for development, and the ADF is already faced with the reality that it cannot recruit sufficient personnel to comfortably perform the missions the Government demands of it.⁵²

What is significant is that the recruitment of high-calibre personnel and leadership into the ADF is not merely a matter of competing in terms of financial reward or benefits (pay and conditions) with the private sector. It is more a matter of appealing to the instincts of duty, patriotism, comradeship, and participation of certain elements of society. The ability to recruit and retain ideal defence personnel, then, is tightly linked to population strategies which build national unity, prestige, and sense of destiny.

⁵² The problem is not new: the Defence Department's annual report, presented on October 27, 1995, warned that key elements of its combat force were unable to achieve the required level of combat readiness because of a shortage of troops and equipment. This was said to be due to cuts in defence spending to a post war low of two percent of gross domestic product and an exodus of soldiers to the private sector on the back of economic recovery. The Department's annual report, on October 27, 1995, said key elements of its combat force (primarily reserve forces) were unable to achieve required levels of combat readiness. Four of the Army's eight combat force elements - the Manœuvre Force, Follow-on Force, Protective Force and Logistic Force — failed to achieve required levels of readiness in 1994-95. It also said that although the majority of regular Army forces achieved the required readiness levels during 1994-95, the unavailability of the Nomad transport aircraft (grounded for safety reasons), and technical problems with the Black Hawk (lack of spares), severely reduced the Army's ability to conduct air mobile operations. The report also said the number of soldiers leaving the Army in 1994-95 jumped by 268, or 8.2 percent.

But even assuming that the ADF can recruit — and, through energetic programmes continue to build the morale and the wellbeing of serving personnel — successfully against competition from a vibrant private sector based on the intangible appeals of military service, it is inevitable that there will be a shortfall in manpower required to fulfill the ADF's growing mission demands over the coming half-century. Even the conflict to stabilise Iraq (2003-) emphasises the manpower-intensity of peacekeeping/stabilisation or intervention operations, let alone major conventional conflict. And as Australian experience showed in operations in Iraq, Afghanistan, Timor Leste, the Solomons, and elsewhere, although constant military actions hone skills and expertise, they also take a severe toll of the morale of serving military personnel and their families, thus impacting retention levels.

The US, currently the most powerful military power in the world, could not sustain its deployments in Iraq, Afghanistan, and Serbia (Kosovo)⁵³ if it was not for the contribution of its "weekend warriors": its Reserve and National Guard units. Significantly, the US National Guard units are not Federal US forces, but, rather, state units, specifically designed as a militia of volunteer, part-time troops (Army and Air National Guard) to help the individual states meet local emergencies, and which can be offered to the Federal Government for national duties from time to time.

Australia's professional military leadership within the ADF has consistently been reluctant to turn to civilian or militia components, although every major engagement involving Australia, from the Boer War to Vietnam saw the Australian military capability enhanced by state or Federal volunteer, part-time units, whether they were the units — such as the Light Horse Regiments — brought into the Australian Commonwealth from the colonial militias, or

⁵³ Australia, on a *per capita* basis, and solely with Regular and Ready Reserve forces, is actually deployed more widely than the US forces, with significant Australian forces in Timor Leste, the Solomon Islands, Iraq (combat troops deployed until 2008), Afghanistan, and with UN peacekeeping missions. US National Guard forces, as opposed to US Army regular forces, comprise a significant proportion of the deployed active duty forces in Afghanistan, Iraq, and Kosovo. Australia has no comparable capability to give it the force elasticity in meeting mission demands.

were Citizens Military Force (CMF) (known as the Army Reserve after 1980) or Citizen Air Force (CAF) units of the pre- and post-World War II era.⁵⁴ Indeed, Australia's greatest military icons, such as Field Marshal Sir Thomas Blamey, Lt.-Gen. Sir John Monash (the first Australian overall commander of Australian forces), Brig.-Gen. Harold "Pompey" Elliott (World War I), Brig. Arnold Potts (World Wars I and II), and so many others, began as militia officers, who performed with world-class professionalism as military leaders at a theatre and at a strategic level.⁵⁵

In the wake of Australia's rôle in the 1991 Persian Gulf War, then-Defence Minister Robert Ray announced a military reorganisation which would cut 10,000 full-time service personnel from the ADF, and approximately 4,000 civilians employed by the Defence Dept., over a 10-year period. The Government then anticipated savings of \$2-billion as a result of these changes which would fund a new 4,000-strong "Ready Reserve", which would, literally spell the end of the older Reserve system. The new "Ready Reserve" would, in essence, provide a home for Regular force personnel who were retired from the ADF, and, to fund this, many of the existing volunteer Reservists would be retired. This, along with the earlier transforming to the volunteer Reserve system of the CMF/CAF systems, rid the ADF of the civilian volunteers — the militia — which had contributed so much, and so well, to Australia's ability to surge its forces to meet demands for deployment abroad.

Although Australia pioneered the efficient, modern form of all-service leadership with its structuring of the joint service command system under a Chief of Defence Force (CDF) (now emulated by the UK, US, and so on), it

⁵⁴ See the *Australia 2050* study, p.161, footnote 43, for greater detail.

⁵⁵ The Canberra air disaster, on August 13, 1940, as World War II was gaining momentum, saw three members of the Australian Cabinet — Air Minister James Fairbairn, Information Minister Sir Henry Gullett and Army Minister Brig, Geoffrey Street — killed, along with the Chief of the General Staff of the Australian Army, Gen. Sir Brudenell White, two other passengers, and four RAAF personnel. This incident, along with the overwhelming effort to build the Australian forces back from a small inter-war professional force, helped propel the militia leadership back into senior levels of service in World War II.

lagged behind the US, in particular, in moving back toward the efficient, large-scale use of civilian components, such as the National Guard and volunteer Reserve, for its defence forces. The US now believes that the transforming security environment, domestically and globally, is becoming blended, with conventional military threats now often overlapping with informal, or irregular, threats. The move toward urban warfare environments in Iraq and the Levant, for example, and the resurgence of guerilla or irregular warfare in Afghanistan, Sudan, and elsewhere, means that skills from civil sector policing become valuable to the Armed Forces, as do civil sector computer and other technological skills. In the US, as well, civil approaches to emergency medical service (EMS) response and disaster management complement and add to the skills available to regular Armed Forces for military medical capabilities and national level humanitarian capabilities.

For the US, as well, virtually all strategic airlift during the 2003 (commenced) Gulf War and Afghan international stabilisation operations, utilising USAF long-range transports (C-5A/M, C-17A, etc.), was undertaken by Reserve or National Guard aircrew. It is no longer tenable for the ADF to dismiss the need for a more integrated force structure involving citizen forces whose call to service is more often motivated by a sense of duty rather than the appeal of a well-paid, secure career.

Australia, going forward, will not be able to dispense with an increasingly professional and well-equipped cadre of professional, career military personnel, but neither will it be able to function adequately without a greatly enhanced civil sector contribution. The Government, in recent years, has recognised this need, and has begun rebuilding the volunteer reserve capabilities of all three Australian services, while also building up civilian contributions to the national emergency response capabilities through cadet schemes and other means.

An integral part of this has been the highly-successful re-establishment of the system of cadet units which enable Australian youth to serve the society and prepare for service within the Armed Forces or other service institutions. Indeed, the reinstitution of cadet corps oriented toward the Army, Navy, and Air Force have, in Western Australia, been supplemented by the creation of

cadet units supporting the Police and Emergency Services (including the Red Cross, St. John's Ambulance, Surf Life-Saving, Bush Rangers, and so on). The impact on recruiting into the Armed Forces from the cadet services has been significant, in terms of both numbers and quality of entry-level personnel, quite apart from the inculcation of the concept of duty to society, and teamwork, which has traditionally occurred within Australian youth.

The concept of civilian service to the nation, however, will need to be substantially, and continually, stressed along with the process of conscious nation-building. Indeed, this is reflected by the reality that national security is, in the 21st Century, becoming increasingly a "whole of society" affair. The approach, then, of considering a "Homeland Security" orientation for part of this process is not without merit, but — as with Coastwatch, and the Border Protection Command — care must be taken not to actually divide the total, contextual view of national security into "homeland defence" and "other". Even the United States, which pioneered the "Homeland Security" concept in order to unify Federal responses to security threats after the September 11, 2001, terrorist attacks on the US, has had grave difficulty in achieving desired efficiencies in its national security, and yet has, at the same time, incurred massive new levels of bureaucratic overhead and costs.

Australia, with greater pressures on its manpower and budgets, needs to work first toward coordination of existing assets — perhaps through a small oversight capability responsive to the National Security Committee of the Cabinet — before considering another layer of bureaucracy which would, inevitably, inhibit flexibility. And while a ministerial post for "homeland security" has been advocated, this does not necessarily imply the need for a separate government department.

The incoming Rudd Government wisely resisted pressures to form a separate Department (and Minister) of Homeland Security. The appointment by the Rudd Government of a Minister for Home Affairs, with Bob Debus as the first to hold the portfolio within the Department of the Attorney-General, provided the right measure of ministerial oversight of what could be termed "homeland security" issues without adding to the bureaucratic structure.

Appendix One:

(i) The Australian National Security Community

The national security community of all major industrial nation-states has, in recent decades, become more integrated and interdependent to meet more amorphous — as well as classical, conventional — challenges to the survival and security of the society.

In Australia today, the national security community embraces: the Governor-General as titular Commander-in-Chief; the Parliamentary national security bodies and committees; the Prime Minister and the Defence Ministerial team, but particularly the National Security Committee of Cabinet; the Department of Defence; the Armed Forces under the Chief of Defence Force (CDF) and the service Chiefs; the Inspector General of Intelligence and Security acts as the principal Government oversight on the six principal national intelligence organisations; the Intelligence Community (IC), involving civilian and military services; the Department of Foreign Affairs and Trade (DFAT); and, to an increasing degree, the Federal Police (and other aspects of the Attorney-General's Department), Customs, Immigration, and Fisheries departments, and Coastwatch; as well as the State and private sector defence scientific and industrial community, the national communications infrastructure; and other aspects of Australia's strategic base, including its energy industry.

As well, a key dimension of Australia's National Security Community is also the financial regulatory sector, such as Austrac; which has both domestic and international rôles. The National Security Committee (NSC) of Cabinet consists of the Prime Minister, Treasurer, Minister of Defence, Minister of Foreign Affairs, and the Attorney-General.

Other ministers are seconded to the NSC when specific issues relevant to their portfolios are addressed. Senior officials also attend the meetings: the secretaries of the departments of the Prime Minister and Cabinet, Defence; and Foreign Affairs and Trade; the Chief of the Defence Force; and the directors-general of the Australian Security Intelligence Organisation (ASIO) and the Office of National Assessments (ONA). Other departmental secretaries and the Commissioner of the Australian Federal Police may be called upon to attend as required.

(ii) The Australian Intelligence Community

The Inspector General of Intelligence and Security acts as the principal Government oversight on the six principal national intelligence organisations which comprise the Australian Intelligence Community (IC).

Civilian Intelligence Organisations:

- ONA: Office of National Assessments. Coordinates all-source intelligence and provides policy analysis.
- ASIS: Australian Secret Intelligence Service. Foreign intelligence collection, reporting to the Prime Minister's Office.
- ASIO: Australian Security Intelligence Organisation. Domestically-related counter-intelligence, and security intelligence, particularly relating to counter-terrorism intelligence and analysis. Reporting to the Attorney-General's Department.

Defence Intelligence Organisations:

- DIO: Defence Intelligence Organisation. (Dept. of Defence). Principal defence and strategic intelligence organisation, reporting through the Deputy Secretary of Defence, Strategic and Intelligence. Subordinate to DIO are the individual service intelligence units Naval Intelligence, Air Force Intelligence, and the Directorate of Military Intelligence which also serve tactical intelligence functions for their respective services.
- DSD: Defence Signals Directorate (Army). National-level SIGINT, COMINT. Reports, administratively, to the Deputy Secretary of Defence, Strategic and Intelligence.
- DIGO: Defence Imagery and Geospatial Organisation (DIGO); created on November 8, 2000, bringing together three separate parts of the Defence Department: the Australian Imagery Organisation (formerly located within the Defence Intelligence Organisation), the Directorate of Strategic Military Geographic Information (formerly located within the Defence Headquarters), and the Defence Topographic Agency in Bendigo, Victoria.

Appendix Two:

Defining Terrorism

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By Gregory R. Copley. The world is at war, whether declared or undeclared, whether consciously or de facto, and the war is being called the "war on terrorism". But in reality, terrorism is merely just one method of conducting war. The principal difference with the current conflict is that "terrorism" is being elevated to the iconographic status of a formal adversary in its own right. This may help focus public opinion, but it should not cloud the judgment of professional strategists.

United States President George W. Bush, on September 11, 2001, in a response to attacks on US targets in New York and Washington DC, declared "war on terrorism". The US was subsequently joined by the leaders of virtually all other nation-states in its condemnation of "terrorism". But the phenomenon of "terrorism" is interpreted differently and selectively by almost all who use the term. "Terrorism" and "terrorist" have become loaded words: they have an iconographic meaning which connote images, almost always of acts or individuals hostile to one's own interests.

Few would take exception to this fundamental interpretation. There is, however, much more to the phenomenon of terrorism and how it must be understood by professionals in the arena of strategic policymaking, defense and intelligence if they wish to negotiate the current and anticipated global environment. The terms "terrorism" and "terrorist" are often used and misused indiscriminately, making clear policy responses to the phenomenon difficult.

1. Terrorism is a stratagem. It is a tool of strategy, employed to create a certain effect, and a tool which reflects also the resources and disposition of the group or nation-state which employs it. It does not represent an holistic approach to conflict, nor is it an entity in itself.

2. Terrorism is an aspect of psychological warfare, falling under the over-arching umbrella of a grand strategy. Where it is coordinated into a grand strategy, and implemented under a defined psychological strategy, it can be an effective tool and force multiplier in the conduct of an overall war. It may even be a decisive psychological tool, but it requires a comprehensive political strategy on the part of its sponsors to be anything other than an antagonism, unless the target group or state of the terrorism willingly surrenders to the phenomenon.

3. Terrorism is not a dirty word. The word "terrorist" is often used as a pejorative; it has become a "loaded" term. However, a "terrorist" is merely an individual who uses actions to create the psychological condition of "terror"¹ in a target audience in order to achieve a desired social and/or political effect. That effect could be paralysis,

retaliation, polarization of communities brought about by engendered bigotry or pseudospeciation (the transformation of an opponent, in one's mind, into a lesser species, unworthy of equality with ourselves), or it could push decisionmaking in certain directions.

A humorist uses humor to create a desired effect in his target audience; a terrorist undertakes acts to create terror in order to achieve a social or political result. We have seen from the September 11, 2001, attacks on the US, and from earlier attacks on the City of London by the Irish Republican Army (IRA), that terrorism may also engender direct economic consequences, quite apart from — but directly connected with — the psychological impact. The acts may also have the effect of forcing a diversion of military, security or intelligence assets from their normal missions, thereby distorting the target country's strategic posture.

The Diplomat's Dictionary, by Charles W. Freeman, Jr., describes terrorism as follows:²

The use of violence against non-combatants, civilians or other persons normally considered to be illegitimate targets of military action for the purpose of attracting attention to a political cause, forcing those aloof from the struggle to join it, or intimidating opponents into concessions.

This is an entirely unsatisfactory description, but one which is widely accepted. It neglects the fact that terrorism is not an act which specifically must target civilians or non-combatants, or "illegitimate" targets. Strategically, all valid targets must be considered. Under the normal framework of conventional warfare, civilian targets are a key component of national capability and decisionmaking, and are usually targeted by other means. Terror can infuse military as well as civilian targets; terror can paralyze or distort the minds of professional leaders as well as the minds of "innocent bystanders". From time immemorial, but certainly with the great example of Atilla in the Fifth Century CE, we see that all war is "total war", and that the psychological component — including terror, but also including hope, optimism, charisma, etc. — is the critical element of it.

The Cold War was entirely about the use of terror against civilian targets. The "balance of terror" was the essence of the mutually-assured destruction (MAD) strategy adopted by the Soviet *bloc* and the West, specifically implying that civilian targets — cities — would be held hostage to possible nuclear attack, thereby forcing a decisionmaking mode in the opponent's body politic which would respond to that threat. Was that not a form of terrorism?

The late Menachem Begin, before he was Prime Minister of Israel, described his rôle in the fight for modern Israel's creation as that of a "terrorist": he consciously used

terror to help create the political climate to force the occupying British to leave Palestine, and did not shrink from the descriptive (rather than emotional) title of "terrorist".

4. Why do we fear terrorism? Quite apart from the fact that terrorism does, in fact, create terror in the target community (and in other communities who fear that the same thing could happen to them), terrorism often creates almost irrational responses among professionals in the policy, defense and intelligence arenas. People who can talk rationally about nuclear threats often talk irrationally about terrorism. Why?

Part of the answer lies in the fact that terrorism is, by definition, a stratagem of surprise, deception, informality and manipulation of perception. *It is employed specifically as a tool of asymmetrical warfare*, usually (but not always) by a weaker/smaller force against a stronger and more fixed target. Military and intelligence officers within the major powers have been predominantly trained and disciplined in conventional, structured warfare; normal defense depends upon cohesive unit action against a similarly-trained adversary. But it is laughable to suggest that a lesser-advantaged adversary should feel compelled to fight on terms defined by the more powerful foe.

Major powers through history have felt it their unique right to act and force others to react. But this is a luxury. Similarly, major powers, with everything to protect, cannot afford to disband their conventional capabilities just to fight an unconventional foe. Unconventional response capabilities must be added to their force mix, and, of necessity, "unconventional" capabilities require "unconventional" thinking and structures. It is not unreasonable to suggest that the formal, conventional structures of policy thinking, defense forces, intelligence and law enforcement are inadequate to the task; even that those individuals who have grown up in such systems may be unable to adequately respond to psychological threats.

The fact is that there was so much intelligence, evidence and analysis over a period of a decade which warned of the *strategic* nature of the terrorist threats to the United States which could not get through the mind-set of most US intelligence or national security officials. To them, by and large, the threat of terrorism was not "a real threat"; it was a minor pinprick, unworthy of consideration. Until it happened.

Now we see a response from many quarters which is inefficient, often totally misunderstanding the threat and the origins of it. What is significant, as well, in the current US climate, is that many in the intelligence and defense communities continue to disregard those who could and did understand the original threat, and the nature and causes of the threat before September 11, 2001. These bureaucrats

have attempted to "shoot the messengers" while at the same time apply "conventional" thinking and responses to an "unconventional" threat. The aphorism about rearranging the deckchairs on the *Titanic* after it has hit the iceberg comes to mind.

The *fear of losing control* is the most significant aspect of the impact of terrorism on the national security professional. This is closely related to the *fear of the unknown*. Professionals who can with valor engage in mortal conflict with a peer of an enemy state find it difficult to know what to do in the face of an unseen, unknown adversary who fights by different rules.

5. Terrorism versus Unconventional Warfare. Terrorism is a form of unconventional warfare, but as a term it is not interchangeable with guerilla warfare, sabotage, or insurgent warfare, those other forms of unconventional conflict. Legally, under the laws of virtually all (probably all) recognized states and under international law, the acts which most terrorists commit are punishable under criminal law and are criminal acts. [Some acts which cause a "terror" response may not need acts of violence or destruction, but most do.] Because terrorism entails, by definition, acts which are not covered by the declaration of war by a nation state (either *de facto* or *de jure*), or which are permitted under international law governing the conduct of war, they are criminal acts, beyond normal state protection.

Terrorist acts are criminal acts designed to achieve a political end. Motivation (ie: political or ideological belief, in the case of terrorism) does not legally mitigate the crime. If one nation-state justifies the actions of terrorism against its foe(s) — ie: it legitimizes the acts by giving explicit or *de facto* approval of them — it takes responsibility for the terrorist who could, in some instances, then be said to be acting as an agent of that approving state.

We have been led to accept the cliché "one man's terrorist is another man's freedom fighter", but the reality is that terrorists act as criminals and attempt to justify their acts by political motivation. It is for this reason that the laws of war disavow protection for such actions, just as they disavow protection for intelligence agents or officers or saboteurs who act in a hostile environment without the protection of a uniform of a sponsoring power.

Several states have said that groups such as *HizbAllah* are not terrorist organizations because they are acting to "liberate" territory which they claim for their adherents. The reality is that *HizbAllah*, for example, is an insurgency group, or paramilitary body, which often uses acts of terrorism. As a paramilitary group it can claim greater recognition than groups which are purely terrorist in nature by having formal (although often secret) links with sponsoring governments. That is the nature of

guerilla or insurgent groups: they wish to elevate their legitimacy by becoming part of the parallel or alternative government of a society, although in fact they can claim no such basis legally, only, in some instances, *de facto*.

But terrorism, terminologically and legally, is defined only by its actions, not by its motivations: it is an action designed to create terror, a psychological condition, usually by the selective application of violence or the threat of violence in a manner which relies on unpredictability to achieve maximum impact. By definition, also, terrorism can be employed by military units on a battlefield, exempting it from the legal ramifications which apply to terrorism performed in a non-war civilian environment. Battlefield terrorism — such as the *kamikaze* attacks during World War II — is designed not only to inflict operational damage on an enemy, but also to paralyze, confuse and distract.

With the case of groups such as *HizbAllah*, acting in what is formally a non-war situation, states such as Syria and Iran may wish to say that the group is a "freedom fighting" organization. But if it uses criminal acts to create a political effect, then the group, and its sponsors (Iran and Syria), must be accountable for that fact. States may decide that the political ends justify the use of terrorism, but that should not blind us into regarding them as legally valid forms of conflict. In other words, just because we may accept or agree with the motivation of the terrorist we should not be blinded to the reality of the acts the terrorist performs.

In so recognizing the "clinical" realities of terrorism, it then behooves us not to misuse the words "terrorist" and "terrorism", but to apply them deliberately and appropriately. This can assist the process of removing emotionalism from debates about the subject, thereby aiding solutions.

6. Can Terrorism be Defeated? Terrorism, as noted above, is merely a stratagem, in some instances a tactic. Sun-tzu said in *The Art of War* that the highest form of generalship is to balk the enemy's plans; the next best is to prevent the junction of the enemy's forces; the next in order is to attack the enemy's army in the field; and the worst policy is to besiege walled cities.

The most significant response to terrorism is to balk the enemy's plans. To do this, however, those plans must be understood. In the case of the current broad war, the West in many instances has attempted to divine its enemy's plans by either believing what sympathizers of the enemy are saying are its plans and causes for war, or by using Western logic (mirror-imaging) to "divine" the enemy's intent or goals. This is a reactive process, relying on intelligence structures which are not equipped to handle the task.

Sun-tzu also said: "All warfare is based on deception". And terrorism is, by definition, deception. It intends to deceive a populace into believing that it is unsafe; it deceives as to the perpetrators of the attacks; it deceives as to the real purpose and cause of the hostility; and it deceives by creating the belief that it cannot be stopped due to its "irrational" and "unpredictable" nature.

He also said: "Indirect tactics, efficiently applied, are inexhaustible as Heaven and Earth, unending as the flow of rivers and streams." At present, only the terrorists are employing indirect tactics with any consistency. The response itself must circumvent and overarch the threat rather than attempt to meet head-on an amorphous enemy.

The response to terrorism must be to strategically outflank it. This does not mean abandoning physical protection against it, but such protection and direct response against terrorism should not, *de facto*, become the strategy. The answer to terrorism in its present form is to change the shape of the world. As Omar Khayyam said: *"Could thou and I with Fate conspire / To grasp this sorry Scheme of Things entire, / Would not we shatter it to bits — and then / Re-mold it nearer to the heart's desire!"*

The essence of this, in the counter-terrorism sense, is to reshape global alliances to reduce the pool of states or communities which see the need to employ terrorism. The former USSR once employed and supported terrorism against the West; the People's Republic of China (PRC) once utilized narcotics trafficking and narcoterrorism against the West. These were asymmetric forms of warfare to be employed when direct confrontation was impracticable. Now Russia, one of the successors to the USSR, along with most other former states of the USSR, and the PRC, are allied in some senses with the West. Other, overarching alliances can also be built by, for example, helping societies to remove those leaders (in Iran, Iraq, etc.) who use terrorism to gain legitimacy or to remain in power.

Within this framework comes the need to address the broader human issues of education, opportunity, communication and — as a direct result — that other psychological condition: identification *with* a civilization rather than against it. Inclusion rather than exclusion.

Footnotes:

- Here, we use "terrorism" to mean the planned achievement of the psychological condition of terror (which may be exhibited as fear-induced responses), induced by physical or psycho-political image manipulation, as an operational philosophy against either a targeted society, group or individual with the aim of creating a response damaging to the target's interests.
- 2. Freeman, Charles W., Jr. The Diplomat's Dictionary. Washington DC, 1994: National Defense University.

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